



Memorandum

To: Mr. Mathew Bouldin
From: Mr. Michael Zuba
Date: July 1, 2021
Subject: District Planning Consultant – “Long Range Planning Process”

Dear Matt:

With the completion of the contracted work, we are providing the following summary memorandum for the final deliverables that were presented to Princeton Public School’s (PPS) Board of Education on May 11 and May 18, 2021. This memorandum summarized the overall process that our project teams and PPS collaborated on after the pandemic pause and subsequent restart of the “Long Range Planning Process.” The restarted process roughly spanned from September 2020 through June 2021.

Please note, the scope of the work for the restart changed from the initial assignment and was much more focused on developing detailed recommendations and solutions for each grade level in the district vs. providing multiple high-level solutions and concepts for the district alignments as originally anticipated.

The recommendations developed are intended to provide a framework to support the educational vision, improvements, and investments needed to maintain PPS facilities for the years to come. This Plan serves as a starting point for deeper discussions and as a roadmap for the next steps in the process for pre-referendum feasibility study and schematic design. Planning is a continuous process, and this document will provide a foundation for future decision making and plan refinement.

The following is an outline of the content enclosed.

Summary:

- A. Working Group Process
- B. Long Range Planning
- C. Princeton Elementary Schools

D. Princeton United Middle School (PUMS)

E. Princeton High School (PHS)

A. WORKING GROUP PROCESS

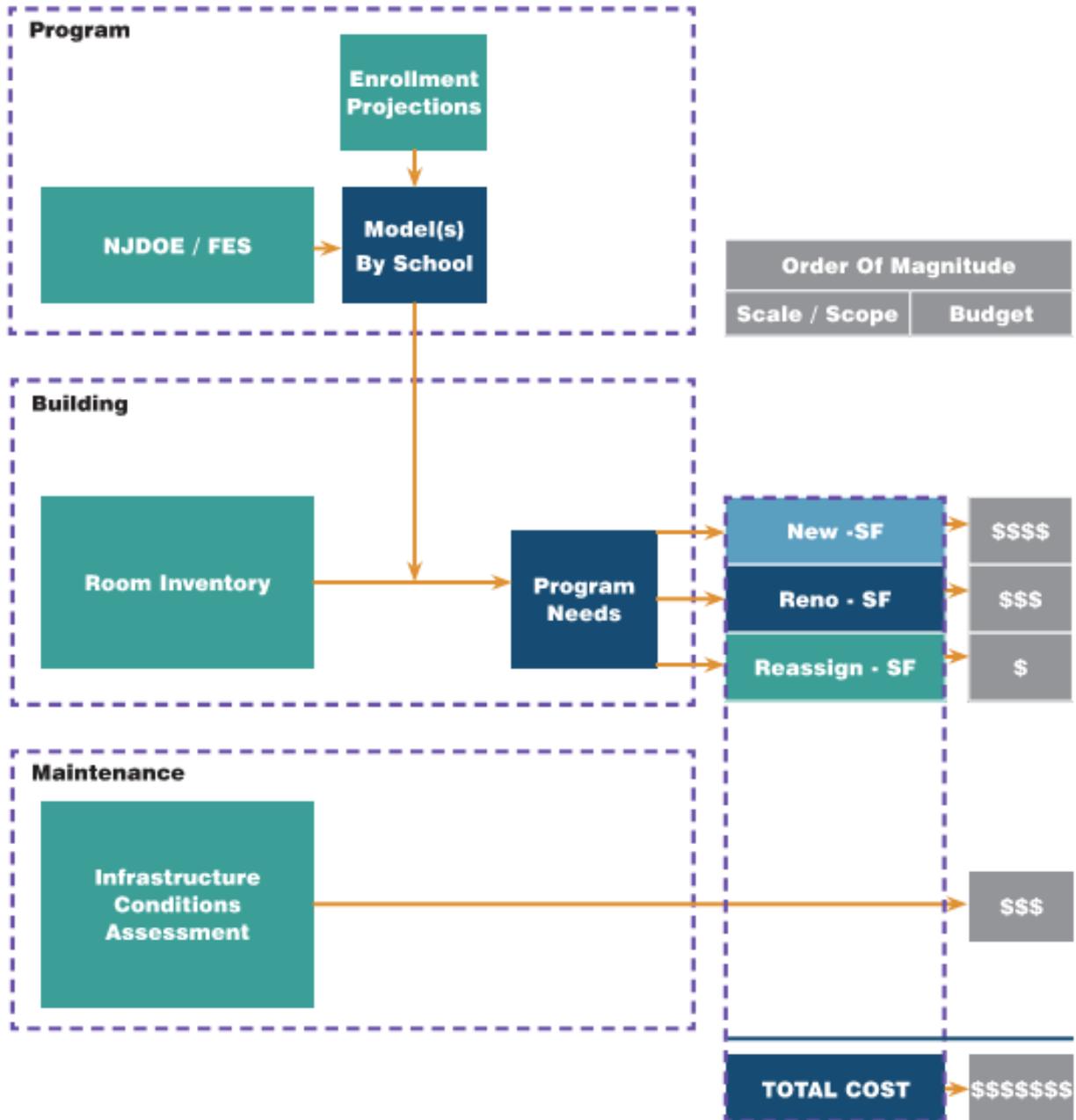
As part of the restart process, a Working Group (WG) was established with representation from PPS administration, school building leadership, staff by grade level, and BOE members. The WG met 10 times over the course of 7 months to review information on enrollment projections, capacity, and programming and provide feedback, direction, and ultimately guide recommendations. Additional focus group meetings were conducted in between WG meetings to take a deeper dive into areas of concern and initial strategies. For each grade level a menu of options was presented to the WG for input, feedback, and refinement. Through this iterative process, options were vetted, choices weighed, and concurrence made for each grade level. Based on these decisions, final recommendations were developed for the Elementary, Middle, and High School.

B. LONG RANGE PLANNING

At the kickoff of the long range planning process, we developed a simple flow diagram shown on the following page titled “Long Range Planning Services” to graphically depict the planning process and scope for each of the three school levels that exist in PPS: Elementary Schools, Middle School, and High School.

Long Range Planning Services

Process / Scope Diagram



The flow diagram shows the three major “Scope Categories,” which impact the development of a project scope of work as follows:

SCOPE CATEGORIES:

1. **PROGRAM** – The building program is determined by several factors: enrollment projections, NJ Department of Education (NJDOE) Facility Efficiency Standards (FES), and the District’s educational policies, standards, and practices. By integrating these inputs with the advice and feedback from District staff during multiple working group sessions, the design team developed District-specific program models to define and quantify the District’s facility needs for the elementary, middle, and high school levels. These program models constitute theoretical templates that are used to evaluate the adequacy of the existing school buildings to support the District’s educational mission and to identify deficiencies that must be provided.

2. **BUILDING** – The design team performed a site visit to each site/building location in the District to understand its general condition, including floor plan layouts, site features, and how each facility functions in relation to operational and educational program needs. We documented the existing floor plan layouts of each building and reviewed the aerial photographs of each site. From this walk through we were able to determine a list of functional deficiencies. We then overlapped the “District Model” developed for each school against each existing building configuration. By comparing these elements, we identified specific areas of synergy and conflicts for each building. This evaluation allowed us to formulate building-specific program needs by location. The program needs were then categorized into three sub-groups of work categories:

Work Categories:

- a. **Additions** – proposed additions to fulfill the program content by building. At some building locations the program for additions was further refined into “required additions” and “optional additions” so the Board of Education would have options to choose from in the decision-making process.
- b. **Renovations** – proposed renovations to fulfill the program content by building. At some building locations the program for renovations was further refined into “required renovations” and “optional renovations” so the Board of Education would have options to choose from in the decision-making process.
- c. **Reassignments** – suggested room reassignments to shift functions within the existing building layout/configurations.

Order of Magnitude Cost:

- a. Each work category was assigned an “order of magnitude cost range” based on complexity and expected difficulty to execute the work. Allowances were included for

work items that could not be fully defined such as site development, utilities, undefined work items, hazardous material allowances, etc.

- b. Costs were based on historical data and experience. Appropriate contingencies for design, construction, general conditions, and escalation to compensate for timelines and unknowns were provided. Estimates for soft costs, such as fees, permits, and testing costs were based on historical data.
 - c. It is important to note this resulted in an “order of magnitude” project cost estimate for use in making decisions. Estimates were based on market rates at the time the estimate was established. The cost estimates will require adjustment and updating as the project proceeds through the design sequence phases of pre-referendum design, schematic design, design development, and construction documents. Each phase of development will become more detailed, which will further refine the cost estimating accordingly.
3. **CAPITAL MAINTENANCE** – A comprehensive review of the existing facilities conditions and deferred maintenance was not part of the scope of work in this engagement. We suggest these services be performed to define and quantify deferred maintenance work items by site and building location. The goal is to establish a baseline understanding of the assets and liabilities at each existing facility. In the industry this is known as an "Infrastructure Conditions Assessment." This report will breakdown and identify the systems that are deficient or nearing the end of their service life and prioritize the order of their repair or replacement by site and building systems. This level of detail is suggested so the Board of Education can make decisions based on system priorities. This will provide flexibility in managing the infrastructure assets.

By combining the three major scope categories noted, including Program, Building, and Maintenance work items, a final scope of work can be formulated along with an “Order of Magnitude” cost estimate for the scope of work. This can then be used as a road map for planning future needs and improvements in the district.

C. PRINCETON ELEMENTARY SCHOOLS

Baseline Conditions and Trends:

PPS operates four PK-5 Schools in similarly sized school buildings that were constructed in the mid-twentieth century: Community Park School (CP), Johnson Park School (JP), Littlebrook School (LB), and Riverside School (RSD).

Johnson Park was enlarged in the 1970s, and all four schools received additions in the early 2000s, providing a consistent mix of classrooms, specialized instructional spaces, and core spaces, including art, music, and science rooms; gyms and cafetorium spaces; as well as administration and support spaces.

Ample spaces for student support, including resource and AIS rooms, are generally provided at each site, although the quality and size of these spaces varies between buildings. Some core spaces are undersized when compared with NJDOE Facilities Standards and/or District needs.

The District effectively maintains a consistent curriculum across all four elementary schools, including the “Focus” period, where each grade level works on enrichment projects during designated times throughout the District. However, each school also has unique characteristics that result largely from the District’s response to different enrollment demands and program needs, which vary significantly between each individual school.

Self-contained Special Education (SCSE) classes in grades K-5 were housed at Riverside (5) and Johnson Park (3), with one Pre-Kindergarten Special Education (PKSE) class each assigned to Community Park and Littlebrook Schools.

The Dual Language Immersion (DLI) program at Community Park has a significant impact there due to the complex scheduling requirements of this program. As demand for DLI increases, it has become difficult to provide a non-DLI track at Community Park, suggesting a trend toward a DLI-only or DLI-magnet school at this site.

Finally, Littlebrook has experienced the largest enrollment pressure, resulting in the sub-optimal assignment of both undersized regular classrooms and loss of specialized instruction and support spaces, with significant program impacts. In addition, scheduling PE classes to meet state-mandated instructional time is a challenge.

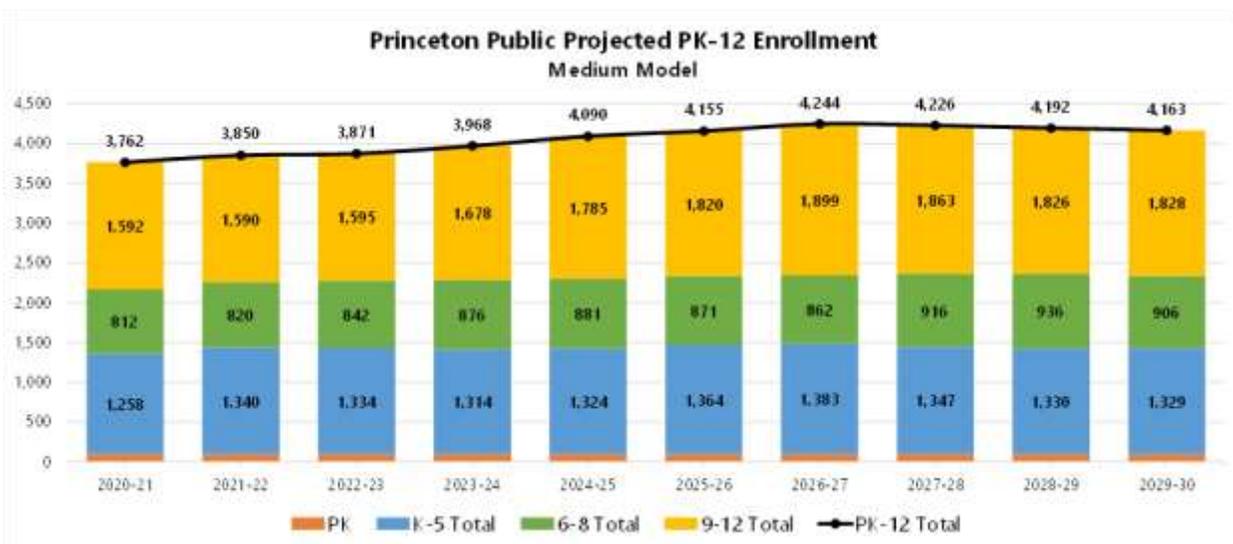
Pre-Kindergarten (PK) programs, including PKSE, were offered both in-district and at the YWCA as a community provider. Notably, at Littlebrook and Community Park, PKSE classes were not complemented by regular PK classes on site. Although PK expansion plans currently focus on the YWCA, balancing PK and PKSE at each site is an important objective.

These different challenges at each school, together with their small size, result in markedly different educational experiences for students in each building, contrasting with the equity goals for the District.

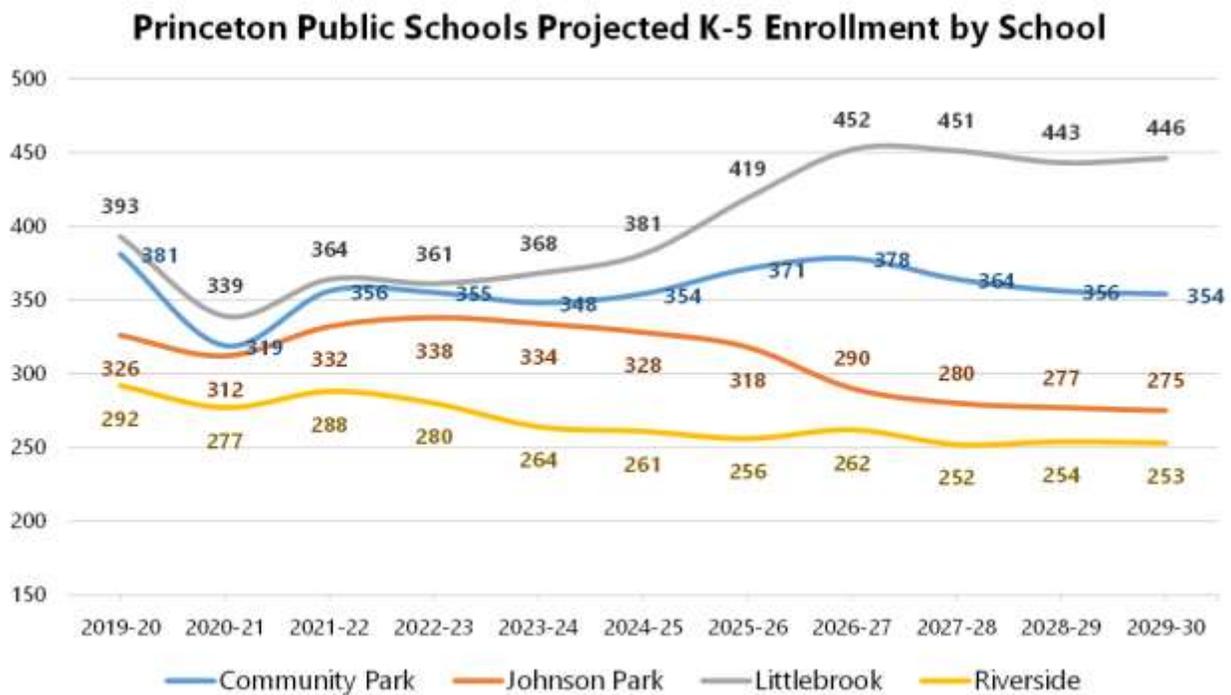
Enrollment Challenges:

Up until the recent pandemic, enrollment in PPS was growing. The decade prior to the 2019-20 school year, PPS had grown by 465 students, or 14%. This growth has been felt across all grade groupings. Elementary school enrollment has increased by 10%, middle school enrollment by 18%, and high school enrollment by 13%. PK enrollment has also expanded from 52 students in 2009-10 to 95 students in 2019-20. The consistent growth across all grade groupings aligns with the overall population growth trend within the District. In the 2019-2020 school year, overall K-5 enrollment was 1,392 students, however, ranged from 292 (at Riverside) to 393 (at Littlebrook).

The COVID-19 pandemic brought about significant changes to what were once steady enrollment drivers in the district. PPS experienced a 33% decrease in in-migration that was felt across all grade levels. Kindergarten enrollment fell to below 150 students, a nearly 25% year-over decrease, resulting in the smallest Kindergarten cohort in recent history, due to a combination of delayed entry, private schools, and home schooling. The impacts of the pandemic have had an undeniable impact on the 2020-21 enrollment. However, the pandemic must be viewed long term and in the larger context of the 10-year enrollment projections and this school facility planning process. Updated 10-year enrollment projections were prepared as part of the “restart process” and presented to the WG on November 19, 2020. The updated enrollment projections are also included in this memorandum.



For planning purposes, the team adopted the average projected enrollments in the 5 out years (2025 to 2030) as our target enrollments. With growth dampened by the pandemic, a modest district-wide enrollment decline is projected to fall largely on Riverside and Johnson Park, with Littlebrook experiencing a significant 12.5% increase. The current overcrowding at Littlebrook is projected to worsen over time.



Project Goals:

The following goals were identified for the project:

1. **Address uneven projected growth** among different schools.
2. **Promote equity** across all schools.
3. **Distribute Special Education Programs equitably** across all schools.
4. **Consider expansion of Special Education programs** to maintain SE students in District facilities.
5. **Provide the full complement of support spaces** at each building, including OT/PT and other support spaces.
6. **Provide PK and PKSE in each building** where PK is assigned to provide the least restrictive educational environment for classified students.

Options Considered:

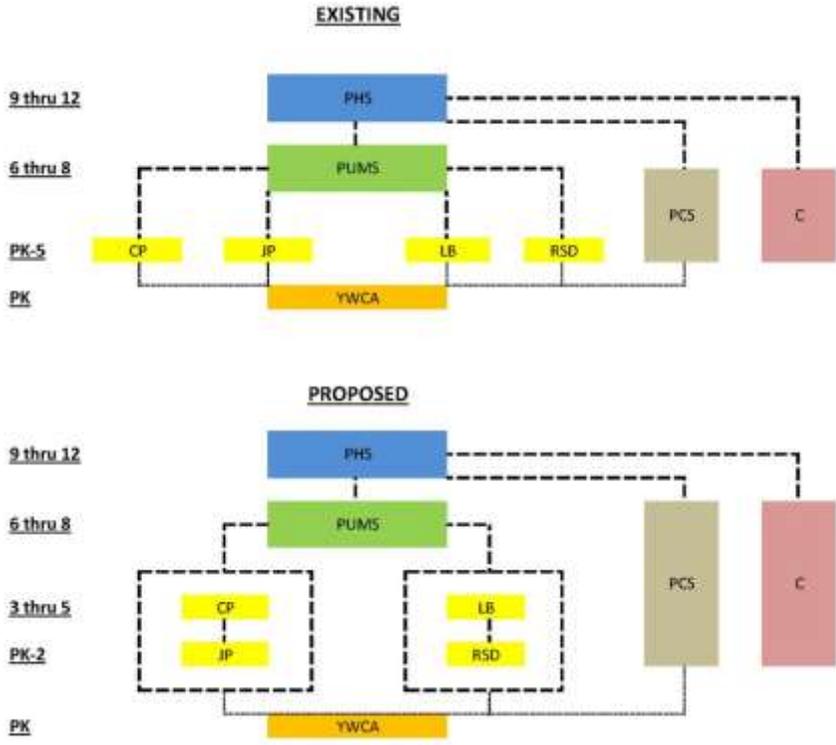
The working group considered the following options for reaching these goals:

1. **Maintain Status Quo:** Add to Littlebrook, tolerate growing inequity between schools.
2. **Redistricting:** Adjust sending area boundaries to balance Regular Ed and Special Ed enrollments between schools.

3. **Avoid Redistricting:** Allow different-sized schools, add to Littlebrook, and possibly allow Community Park to become a DLI Magnet School.
4. **Adopt a “Sister School” configuration:** Provide two PK-2 lower schools and two Grade 3-5 upper schools. Avoid redistricting.
5. **Replace CP on the Valley Road Site:** Returning CP Site to Township for recreational use.

The strong consensus among the WG was to recommend the Sister School Concept, pairing Johnson Park (PK-2) with Community Park (3-5) and Riverside (PK-2) with Littlebrook (3-5), as the preferred option.

The resulting District Configuration Diagram is as follows:



LEGEND:

CP = Community Park
JP = Johnson Park
LB = Littlebrook
RSD = Riverside
PCS = Princeton Charter
C = Cranbury

Adding PK and PKSE to each Lower School yields the following projected enrollments in each building:

ADJUSTED PROJECTIONS									
PPS Target Enrollment: PK-5									
(Average of last five projected years)									
SCHOOL	PK	K	1	2	3	4	5	Orig Total	Adjusted Total
Johnson Park (Lower School)	49	96	99	101				346	345
Community Park (Upper School)					98	111	119	328	328
Riverside (Lower School)	49	107	112	117				361	385
Littlebrook (Upper School)					120	132	138	390	390
TOTAL	98	204	211	218	219	243	257	1426	1449

The resulting Johnson Park/Community Park (3-5) pair, with six classrooms per grade, is slightly smaller in size than the Riverside/Littlebrook pair, with seven each. Both pairs have three SCSE Classes and ten Resource Room/Support spaces, which could be adjusted upon further study. The current plan provides for four additional SCSE classrooms districtwide, intended to accommodate increased demand as well as a return of students in out-of-district placements, or accepting tuition students. However, the sister-school plan does not depend on this SCSE expansion.

Benefits of the Sister School Concept:

Advances equity goals for Regular and SE Students.

1. Spreads the disparate enrollment growth between Littlebrook and Riverside.
2. Preserves current boundaries, with possible minor exceptions (e.g., IAS Students).
3. More consistent class sizes and increased staff utilization due to larger grade-level cohorts.
4. Equitable SE and inclusion opportunities across all buildings.
5. Supports DLI as a parallel track in the JP/CP Pair, with easy ingress/egress of students.
6. Provides the opportunity to develop age-appropriate core and specialized spaces in lower and upper schools.

While the perceived benefits of the Sister School approach were clear to the working group, there were concerns about the perceived high cost and the potential public opposition to the loss of neighborhood schools. This led the team to identify “necessary” versus “optional” program items to manage project costs by providing only the components needed to achieve the reconfiguration. These construction costs can be offset by potential operating-cost savings that would result from the reconfiguration. Conversely,

the optional items will provide important enhanced educational benefits and thus contribute to the value proposition of this proposal.

D. PRINCETON UNITED MIDDLE SCHOOL (PUMS)

Planning Summary Narrative

Baseline Conditions and Trends:

The building housing Princeton United Middle School (PUMS) was constructed in the 1970s and underwent a major addition in 2005, when the natatorium, new gym, music spaces, and a two-story classroom wing were added. In 2013, a Referendum funded the conversion of the former gym to a new Learning Commons. A 2018 Referendum funded the renovation of the former Library into a suite of new makers' spaces.

The original building plan was comprised of a central core – with administration/support spaces and large specialized spaces such as library media center, auditorium, gymnasium, and cafeteria – surrounded by two 2-story classroom “pods” and a third “pod” containing specialized instructional spaces for art, technology, and food science. The second floors of each pod were isolated and inaccessible from adjacent building areas. Although the 2005 classroom wing connected one of the pods (1st and 2nd Floors) to the adjacent building circulation, the other two remain isolated from adjacent building areas.

For decades, PUMS has operated on a strong “house” model, with two five-cohort houses for each grade. As implemented in the schedule, the houses remained together for academic classes, and all grades attended elective Exploratory Program (EP) classes – including Art and Music, PE/Health, Drama, Computer, and technology classes – as an entire grade simultaneously. While the benefits of the “house” concept are well known and documented, as implemented in Princeton the concept also posed several challenging problems, as follows:

1. Academic classroom spaces remain unused during “exploratory” periods, representing 2/7 of the school day, significantly reducing building utilization.
2. Difficulty of individual grades to grow incrementally in response to enrollment growth.
3. Scheduling vocal and instrumental music classes where in conflict with PE.
4. Special Education Students had limited access to Exploratory Classes.
5. Unequal teaching loads for Exploratory vs. House class teachers.
6. Difficulty integrating DLI students into House structure.

Although the District made efforts to give a sense of physical identity to the individual houses, locating grade-level guidance officers in the academic zones, the two-pod system worked against this. Housing

other District-level administrators, who have virtually no student contact, in the academic pods further diminished their academic energy. Unreliable local elevators within the pods serving the upper stories of the houses isolated these spaces further.

Enrollment Challenges:

For planning purposes, the team adopted the average projected enrollments for the last 5 projected years (2025 to 2030) as our target enrollments.

2025-26	262	272	337	871
2026-27	295	277	290	862
2027-28	317	307	292	916
2028-29	283	330	323	936
2029-30	264	295	347	906
Last 5-Yr Avg	284	296	318	898

The Middle School had experienced significant enrollment growth in recent years prior to 2019-20, but this was somewhat attenuated due to the pandemic. Because it was locked into a rigid schedule, enrollment increases appeared as increased class sizes rather than additional course sections for most subjects.

New Schedule Proposal:

After review of the existing schedule and understanding its impact on delivery of education at PUMS, the planning team suggested that the District explore alternative scheduling to improve building utilization. Taking the advice of the planning team and working with a scheduling consultant, Middle School administrators identified a new schedule format, including a 4-day rotating schedule, in which two out of eight schedule slots do not meet on each school day. PE/health has its own slot in the schedule, no longer competing with EP's, which occupy two of the eight available slots. Teaching loads for EP and House teachers will be equivalent in this proposed schedule. A total of 48 teaching stations, including 12 EP teaching stations, will be required to make the schedule work, according to the Middle School administrators.

	6th Grade	7th Grade	8th Grade
	8:20 HOMEROOM	8:20 HOMEROOM	8:20 HOMEROOM
1	House and WL Classes	House and WL Classes	EP/PE/WS/Music
2	EP/PE/WS/Music	House and WL Classes	House and WL Classes
3	House and WL Classes	EP/PE/WS/Music	House and WL Classes
4	LUNCH	House and WL Classes	House and WL Classes
5	House and WL Classes	House and WL Classes	LUNCH
6	House and WL Classes	LUNCH	EP/PE/WS/Music
7	EP/PE/WS/Music	House and WL Classes	House and WL Classes
8	House and WL Classes	EP/PE/WS/Music	House and WL Classes
	2:50	2:50	2:50

Notes - Math, Science, Social Studies, English

The JWMS Schedule used in 2019-20 (left) compared with the proposed PUMS Schedule (below). The new schedule features two rotating AM and PM modules, with only six out of eight “slots” meeting each day.

	A Day	B Day	C Day	D Day
1	Pre-Algebra	Phy Ed/Health	Spanish	Art
2	Phy Ed/Health	Spanish	Art	Pre-Algebra
3	Spanish	Art	Pre-Algebra	Phy Ed/Health
4	Lunch	Lunch	Lunch	Lunch
5	Science	ELA	Digital Citizenship	Ancient History
6	ELA	Digital Citizenship	Ancient History	Science
7	Digital Citizenship	Ancient History	Science	ELA

Improving building utilization using the new schedule will require that classrooms be shared and consequently that separate, shared faculty workspaces be provided. Although the Master Schedule has not yet been fully developed and implemented, we believe the proposed schedule will provide enough “slots” to accommodate the projected enrollment of 897 students. The District intends to fully implement the proposed schedule, incrementally as enrollment grows, transitioning to a shared classroom model, but they do not believe they need to do this immediately.

By allowing EP’s to be scheduled independently (not by grade level) the new schedule will allow EP Classrooms to be counted toward capacity, saving the cost of providing 12 new classrooms.

Further, a revised approach to PE/Health, adding a social-emotional learning (SEL) component, and making the pool a full-time teaching station, is planned. These adjustments will improve building utilization in these subject areas. Additionally, scheduling Music Ensembles within the PE slot will avoid conflicts with other EP Courses and could expand access to these programs for SE students.

Project Goals:

The following goals were identified for the project:

1. More efficient building utilization.

2. Plan the building improvements to promote equity, efficiency, and provide for collaborative learning opportunities at all grade levels.
3. Make existing pods less isolated.
4. Improve circulation connections on both floors.
5. Improved equity in EP opportunities.
6. Provide flexible space to support teacher and student collaboration.
7. Provide an outdoor learning environment.
8. Improve core spaces where warranted.

Proposed Program:

Should this potential be borne out when the Master Schedule is completed and implemented, the need for 12 additional teaching stations would be eliminated. As a result, our proposed project scope includes no new regular classrooms, we propose to reassign two current classrooms spaces and repurpose two EP spaces. In addition, we propose two additional SCSE classrooms, one resource room, in addition to a new PE station, and a new Health/SEL teaching station. Flexible learning studios are intended to support informal, individualized learning activities. Teacher collaboration spaces, one by grade level, allow classrooms to be shared by more than one teacher and are intended to support teacher collaboration by grade level. Expansion and improvement of the Cafeteria/Servery/Kitchen areas are proposed to accommodate entire grade-level activities.

Insertion of the proposed new spaces around the existing Pods allows for integration of the Pods into the adjacent building infrastructure to improve building circulation and direct access to these spaces. Two existing elevators within the Pods will be eliminated, creating new common areas in each Pod, and expanding opportunities for student and teacher interaction and collaboration.

A new outdoor learning environment adjacent to the 2018 “makers' space” renovations, is proposed to restore the space that was eliminated during the 2013 Media Commons project.

E. PRINCETON HIGH SCHOOL (PHS)

Planning Summary Narrative

PHS Planning Summary:

PHS is one of the most highly ranked and well-regarded public high schools in the US. The sprawling three-story, 343,000 square foot building was built in stages over more than 100 years. Prior to the 2018 referendum project, a major addition was completed ca. 2005, adding the Performing Arts Center, New Gym, and Music Wing with science labs above. The former auditorium was converted to function as the Library Media Center at that time. The 2018 referendum project includes new learning and movement studios constructed above part of the existing Fitness Center, a renovated Guidance Suite, and a new Satellite Kitchen to replace the School Store. Faculty Offices for Math and Foreign Language were relocated into modular buildings on site, within the existing parking area.

Existing Conditions and Trends:

Despite the two most recent projects, the perception of the High School Building is that of “a work in progress”, with circulation and space issues, water infiltration issues at the PAC, and numerous undesirable instructional spaces, which faculty seeks to avoid. “Old School” corridors and cellular classrooms characterize the academic wings, with inadequate amounts of commons space for social interactions, collaboration, and informal learning. Departmental offices, where present, do not encourage interdisciplinary collaboration. The Media Center, though heavily used, seems incomplete, inadequate, and acoustically problematic and the upper mezzanine is closed and not used. Above all, the need for flexible classrooms that could be scheduled for different subjects and class sizes were seen to be lacking. The need for more generic science labs (fitted as chemistry labs to maximize flexibility) that could be scheduled for any science discipline was also cited by PHS leaders. Conversely, additional advanced computer science classrooms, such as Python Programming, are no longer urgently needed due to the District’s recent purchase of high-performance laptops for each PHS student.

Dampened Enrollment Growth Post-Pandemic:

As a result of the pandemic, projected enrollment for Grades 9-12 was reduced to a target of 1,848, down from the 2008 target that had been calculated previously. This represents a 16 percent increase over the 2019-20 baseline enrollment of 1,590 students, vs. a 26% increase pre-pandemic. The target enrollment is based on an average projected enrollment using the 5 out years (2025 to 2030), as established by the WG for planning purposes. The planning team calculated a baseline building capacity of PHS of 1,591 students, indicating that the building was occupied at capacity in 2019-20, but would require significant additional space to accommodate anticipated growth, only a portion of which would be met in the 2018 Referendum Project.

Our analysis of the PHS schedule indicated that course offerings for SE students consist of smaller group classes scheduled like regular classes, so that Small Group Instruction (SGI) Rooms contribute capacity to the building. However, all new classrooms, including new rooms, are sized to accommodate larger classes and provide additional schedule flexibility. However, the potential enrollment impact that expanded SCSE enrollments contemplated for the lower grades will ultimately have an impact at the high school should be considered in the future.

Project Goals:

The following goals were identified for the project:

1. Address projected enrollment growth.
2. Replace department offices with interdisciplinary collaboration space.
3. Relieve scheduling pressure.
4. Provide space that supports independent study options.
5. Provide flexible science labs.
6. Right-size SE spaces.
7. Provide interdisciplinary lab space to support hands-on learning.
8. Provide adaptable classrooms and furnishings.
9. Support all students.

Proposed Program:

The proposed program for PHS is designed to accommodate the projected enrollment growth by adding new teaching stations in proportion to the target enrollment, prorating existing capacity and rounding up where appropriate. The instructional spaces included in the 2018 referendum are deducted from the total need to determine the net number of new spaces required for the project.

Specific adjustments to the program have been made, based on input from the working group. The renovation of some additional existing science labs to support any discipline (i.e., chemistry), in addition to the proposed new labs should also be considered. In addition, we have proposed a suite of flexible technology rich, interdisciplinary makers' spaces deduced from the pro-ration of visual arts, performing arts, and technology spaces to accommodate additional students. Most importantly, a major renovation and expansion of the media center, to better accommodate informal and independent learning and student collaboration, was seen to be needed, along with flexible learning studios and small group rooms. An open common area within an open corridor was discussed and desired to help foster social interactions, collaboration, and informal learning opportunities between teachers and staff.

Beyond the proposed expansion of the nurse's suite, providing additional administration space to support a 16 percent increase in enrollment was deemed unnecessary. However, returning the faculty offices from the modular buildings is proposed to take the form of interdisciplinary faculty collaboration spaces in several locations throughout the building. An additional satellite kitchen is also proposed, in order to expand student dining options adjacent to the PAC.

Alternatives Considered:

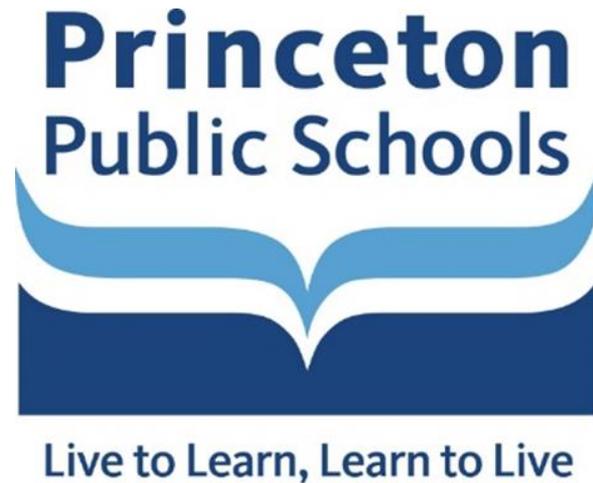
To meet these objectives, two design approaches to the PHS Project were developed and considered. The initial approach involved adding instructional spaces entirely within the existing footprint, and a comprehensive redesign of significant portions of the existing building. This approach corrected many of the perceived faults in the existing building, especially in terms of circulation. However, this approach proved to be both too costly and too difficult to implement in conjunction with meeting the ongoing educational mission of PHS over several years.

The second option, favored by the WG, proposed a compact addition adjacent to the Media Center, with new classrooms, learning studios, and teacher collaboration spaces associated with an expanded learning commons area. The placement of the proposed addition adjacent to the existing Media Center allowed the opportunity to incorporate an open commons area between the Media Center and proposed classroom addition to promote social interactions, collaboration, and informal learning between teachers and staff. This plan retained the interior renovations to convert the existing tech support space in the lower level of the building into a flexible suite of multidisciplinary makers' labs in conjunction to the Numina Gallery, an element common to both options that were considered.

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Princeton School Facilities Plan

HS + MS Presentation
Board of Education Meeting
May 11, 2021



AGENDA

- The PPS School Facility Plan
- Planning Process
- Enrollment Recap

- **Part 1 – May 11, 2021**
 - High School Planning Recommendations
 - Middle School Planning Recommendations

- **Part 2 – May 18, 2021**
 - Elementary School Planning Recommendations

PLANNING PROCESS

WHAT IS THE PPS SCHOOL FACILITY PLAN?

- The PPS Plan and Recommendations Provide a Guide for Decision Making.
- Through a data-driven, collaborative effort, both quantitative and qualitative information on enrollment, facilities, education and the community were compiled, analyzed and validated to guide the recommendations presented in this Plan.
- This Plan is intended to provide the framework to support the educational vision, improvements and investments needed to maintain PPS facilities for the years to come.
- This Plan serves as a starting point for deeper discussions and as a roadmap for the next steps in the process for pre-referendum feasibility study and schematic design.
- Planning is a continuous process, and this document will provide a foundation for future decision making and plan refinement.

SCHOOL FACILITY PLANNING PROCESS



- After a “Pause” due to COVID-19, the assignment was modified, rescoped, and restarted in the Fall of 2020.
- A Working Group (WG) with representation from PPS Administration, Building Leadership, Staff by grade level, and BOE was formed.
- Working Group met 10 times over the course of the last 7 months to review information, provide feedback, direction and ultimately guide recommendations.
- Specific focus group meetings were held in-between Working Group meetings to take a deeper dive into areas of concerns and initial strategies.
- For each grade level a menu of options were discussed with the WG for input, feedback and refinement. Through this iterative process, options were vetted, choices weighed, and concurrence made for each grade level. Based on these decisions, final recommendations were developed for the Elementary, Middle & High School.

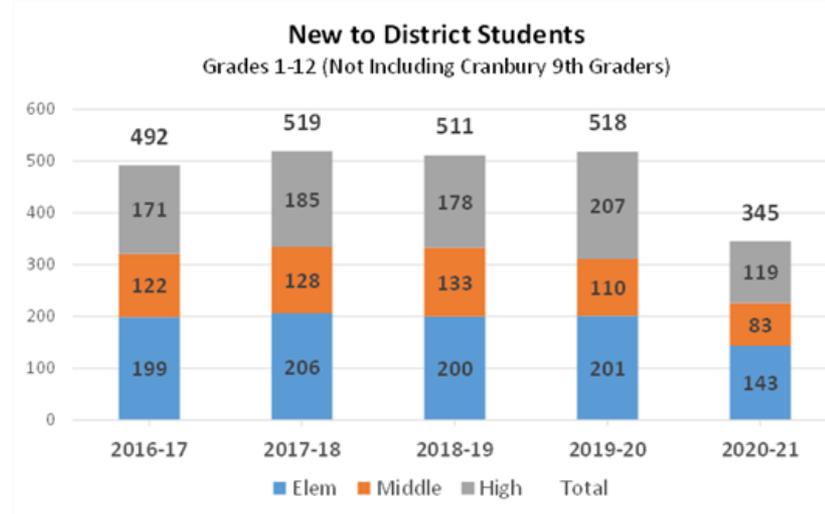
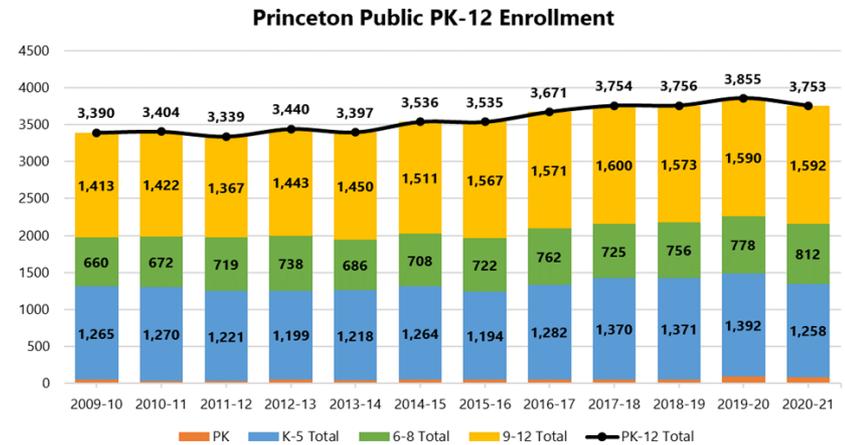
SCOPE OF WORK SUMMARY

- In summary, the original school facility planning sequence was originally defined as a community lead visioning process charged with generating high-level community supported options.
- Due to the pandemic, the planning process was amended to develop practical solutions through a collaborative process with a WG defined by PPS.
- Specifically, the amendment included the following:
 - Updated enrollment projections, capacity and facility utilization.
 - For each grade level, an update of the core model/program was generated, and concurrence was obtained from WG.
 - For the ES, various planning options and configurations were considered and discussed before gaining concurrence from WG.
 - For the ES/MS/HS conceptual diagrams were generated , “Order of Magnitude” estimates were prepared. Construction implementation for each option was discussed.
 - Through the WG process, consensus regarding recommendations was reached for each grade level solution.

ENROLLMENT PROJECTION SUMMARY

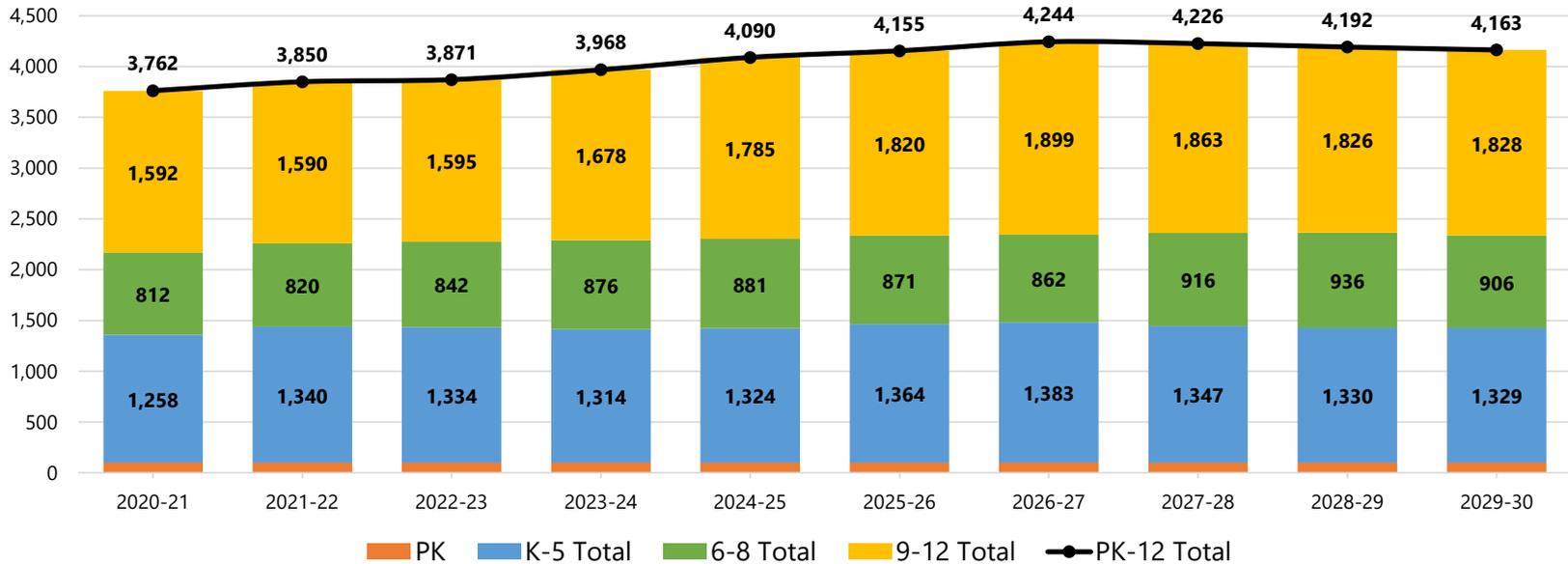
ENROLLMENT RECAP

- Up until the recent pandemic, enrollment in PPS was growing. The decade prior to the 2019-20 school year, PPS had grown by 465 students, or 14%, with growth experienced across all grade groupings.
- The COVID-19 pandemic brought about abrupt and significant changes to what were once steady enrollment drivers in the district.
 - PPS experienced a 33% decrease in net immigration that was felt across all grade levels.
 - Kindergarten enrollment fell to below 150 students, a nearly 25% year-over decrease due to a combination of delayed entry, private schools, and home schooling.
 - An overall significant level of “student churn” from student “opt-outs and transfers” has also contributed to the disruption of the otherwise recent steady growth trends.



DISTRICTWIDE PROJECTIONS

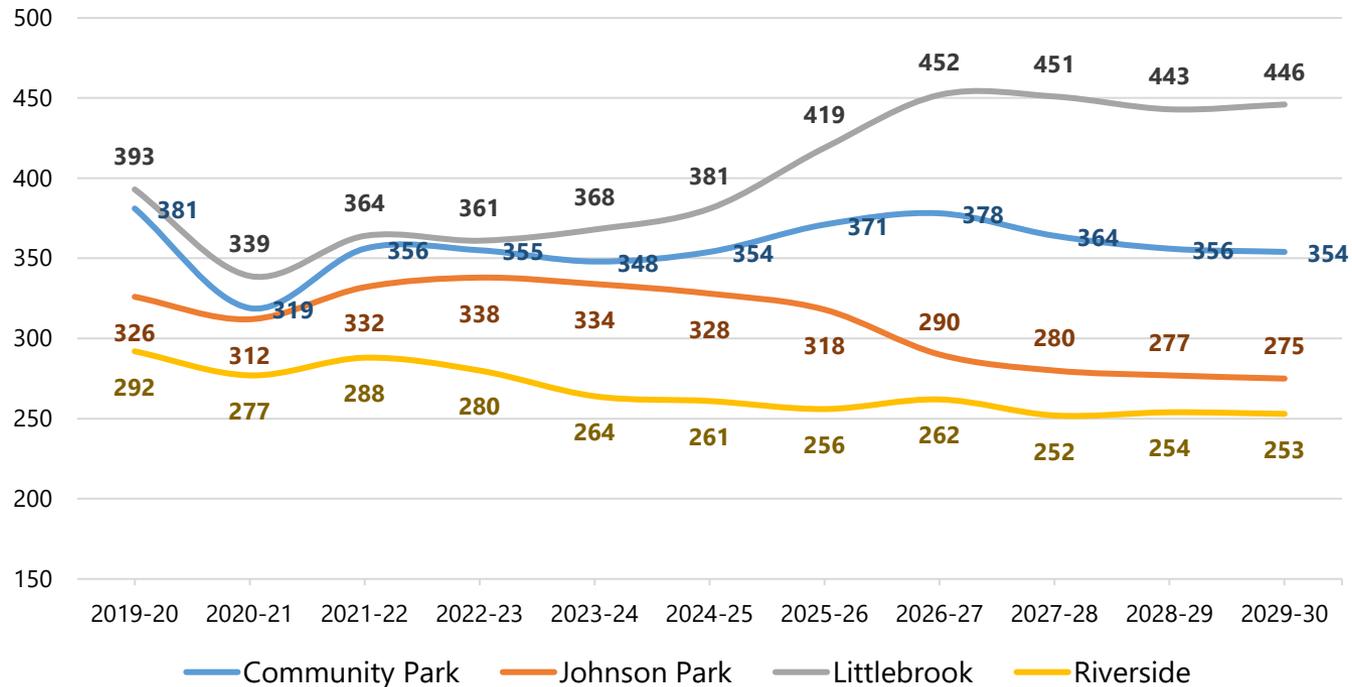
Princeton Public Projected PK-12 Enrollment Medium Model



- Based on impacts from COVID-19, the Medium model was updated and lowered from the pre-pandemic projection.
- Medium model best fits current data (assumes significant build out and occupancy of Fair Share Housing units).
- Projects 9% growth out four years with continued growth until 2026-27 before flattening off to a total of 11% increase out until 2029-30.
- Most of that growth is projected in the middle and high school levels, due to some larger cohorts that have recently entered the system and assumed resumption of in-migration.

ELEMENTARY (K-5) PROJECTIONS

Princeton Public Schools Projected K-5 Enrollment by School

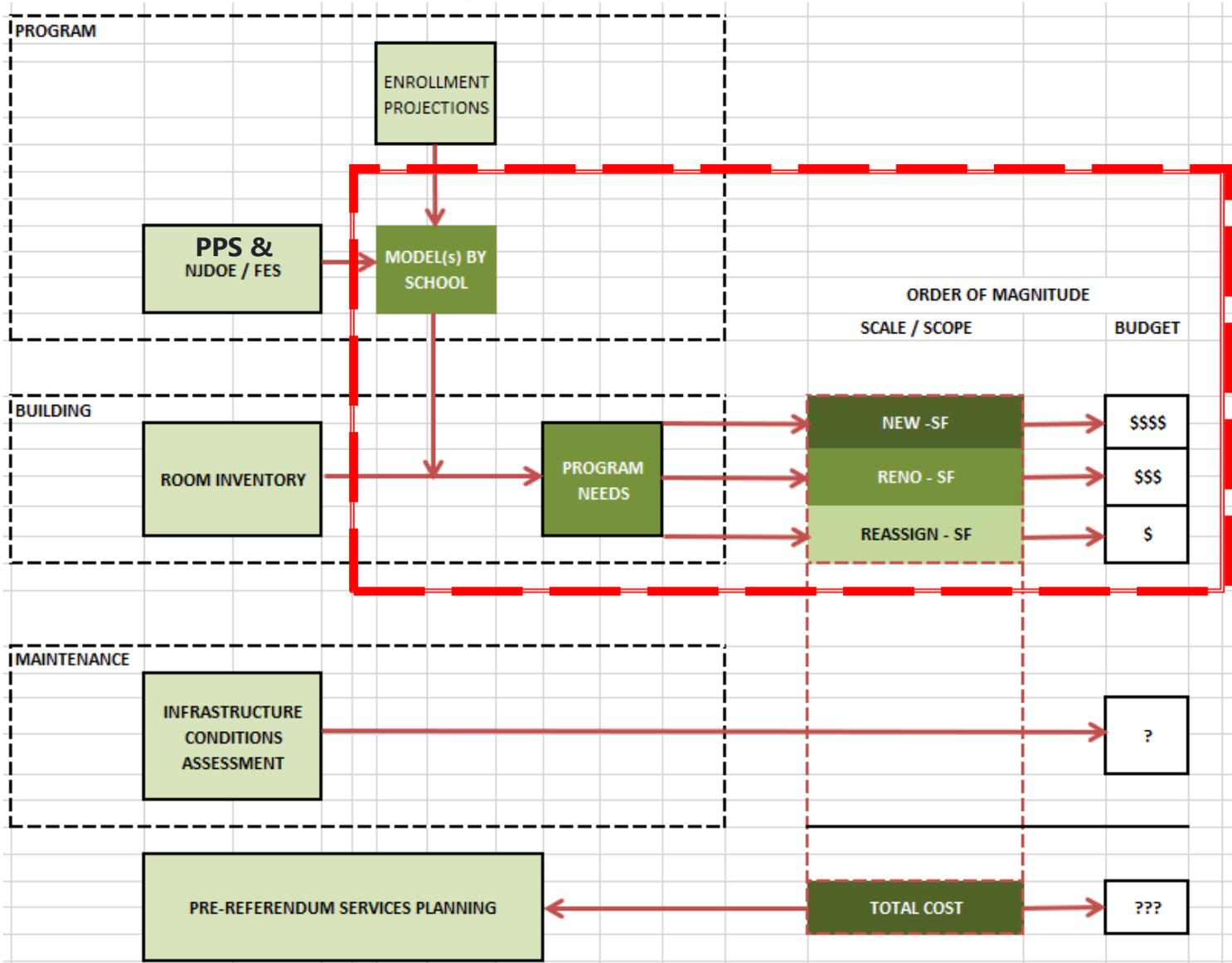


- Due to the location of many Fair Share Housing units, Littlebrook is projected to experience significant growth in the latter half of the projection horizon.
- Assumes no changes to current attendance zones or current program offerings.
- Does not account for 100 PK students.



PRINCETON HIGH SCHOOL SUMMARY RECOMMENDATIONS

PROCESS / SCOPE DIAGRAM



PHS ENROLLMENT PROJECTIONS

School Year	9	10	11	12	9-12 Total
2019-20	390	422	421	357	1,590
2020-21	349	388	418	437	1,592
2021-22	419	370	379	422	1,590
2022-23	407	444	361	383	1,595
2023-24	442	434	435	367	1,678
2024-25	439	474	428	444	1,785
2025-26	450	469	466	435	1,820
2026-27	487	480	460	472	1,899
2027-28	412	518	470	463	1,863
2028-29	412	436	506	472	1,826
2029-30	458	436	426	508	1,828
Last 5-Yr Avg	444	468	466	470	1,848

PRINCETON HS - CAPACITY

PRINCETON HIGH SCHOOL		
2019-2020 CAPACITY		
Instructional Space	Rooms	Capacity @.75
Classrooms	45	844
Science	14	263
Tech	4	75
Visual Arts	5	94
Perf Arts	4	75
PE	6	113
Health	3	56
SG / SE Res / SCSE	8	72
TOTALS		
GE STATIONS	81	1519
SG/SE STATIONS	8	72
CAPACITY		1591
Enrollment		1590
Deficit(surplus)		(1)

PRINCETON HIGH SCHOOL		
TARGET CAPACITY		
Instructional Space	Rooms	Capacity @.75
Classrooms	53	994
Science	16	300
Tech	5	94
Visual Arts	6	113
Perf Arts	5	94
PE	8	150
Health	3	56
SG / SE Res / SCSE	10	90
TOTALS		
GE STATIONS	96	1800
SG/SE STATIONS	10	90
CAPACITY		1890
Adjusted Enrollment (Target)		1848
Deficit(surplus)		(42)

PRINCETON HS – INSTRUCTIONAL SPACE NEEDS

ROOM TYPE	EXISTING	TOTAL NEED	TARGET	2018 REF	ADJUSTED	RM SIZE	NET SF	COMMENTS					
Instructional Space	Rooms	Rooms	Rooms	Rooms	Rooms	SF	SF						
Classrooms	45	-	53	=	8	-	4	=	4	750	=	3,000	Second Floor
Science & Prep	14	-	16	=	2	-	0	=	2	1,500	=	3,000	Second Floor
Tech / Studio (Learning Studio)	4	-	5	=	1	-	0	=	1	1,500	=	1,500	Lower Level
Visual Arts / Studio (Learning Studio)	5	-	6	=	1	-	0	=	1	1,500	=	1,500	Lower Level
Perf Arts / Studio (Learning Studio)	4	-	5	=	1	-	0	=	1	2,000	=	2,000	Lower Level
PE	6	-	8	=	2	-	2	=	0	0	=	0	
Health	3	-	3	=	0	-	0	=	0	0	=	0	
SG / SE Res / SCSE	8	-	10	=	2	-	0	=	2	750	=	1,500	Second Floor
SUBTOTAL												12,500	
INSTRUCTIONAL SPACE NEEDS (NET)													

PRINCETON HS – NON-INSTRUCTIONAL SPACE NEEDS

ROOM TYPE	EXISTING	TARGET	2018	ADJUSTED	NET SF	COMMENTS
	SF	SF	REF	SF	SF	
Non-Instructional						
Performing Arts Center	9,823 -			=	=	Existing Space is Adequate
Library Media Center	6,021 -	8,000		=	1,979	Renovate Existing Footprint / Capture 2nd Floor Area
Cafeteria (includes circ)	8,184 -			=	=	Maintain Existing Space
Serving Area	957 -			=	=	Maintain Existing Space
Net Dining	7,227 -	8,398		=	1,171	Leave Dining as is (6930 SF for 462Stu) Supplement with 2nd Satellite Dining at Perf Arts Lobby (300 to 400 sf)
Kitchen	1,754 -	2,038 +	387	=	103	Supplement with 2nd Satellite Serving Station at Perf Arts Lobby
Admin	33,714 -	39,176		=	5,462	First Floor / Consider Enlarging Nurse
Admin Trailers	3,000 -	3,486		=	3,486	First / Second Floor / Consider Approx (3) Flexible Learning Studio for Staff Collaboration (1,000sf to 1,500sf)
TOTAL NON-INSTRUCTIONAL SPACE NEEDS (NET)					12,200	
Proration Factor (Target Enrollment / Existing Capacity)	1.162					

PHS PROJECT GOALS

PRESERVE OUR ASSETS:

- Strong Departmental System
- Rich, diverse curriculum
- Robust Inclusion
- Motivated Students
- Technology Enthusiasm
- SE Retention
- Innovation
- History & Tradition

MEET NEW CHALLENGES:

- Address Enrollment Growth
- Replace Department Offices with Collaboration Space
- Relieve Scheduling Pressure
- Give Independent Study Options
- Provide Flexible Science Labs
- Right Sized SE Spaces
- Support Hands-on Learning
- Provide Adaptable Classrooms
- Support All Students

PRINCETON HS

CONCEPTUAL PROCESS:

STEP 1
BASELINE EDUCATIONAL
CONTENT

STEP 2
OVERLAP EDUCATIONAL CONTENT
& INCORPORATE INTO BUILDING
FOOTPRINT

STEP 3
UPDATE PROJECT SCOPE

(EDUCATIONAL CONTENT +
RENOVATION IMPACTS +
CONSTRUCTION IMPACTS)
DEVELOP ORDER OF MAGNITUDE COST

PRINCETON HS

ORDER OF MAGNITUDE COST APPROACH

STEP 1 – BASE WORK

**DEFINE WORK CATEGORIES AND
COST RANGES BASED ON WORK**

\$425/SF NEW SPACE

\$325/SF RENOVATION (*)

\$225/SF MINOR RENO (*)

\$125/SF IMPACT AREA (*)

(*) Higher % Funding From NJDOE

STEP 2 – UNIQUE ITEMS

**DEFINE OTHER WORK ITEMS
GENERATED BY SCOPE OF WORK**

UNIQUE / SITE / UTILITIES /
PHASING / RESTORATION

STEP 3

ADJUST ESTIMATE

CONTRACTOR GENERAL CONDITIONS O&P

ESCALATION FOR 2YRS

CONTINGENCY

SOFT COSTS (PERMITS / PROF SERVICES)

FURNITURE ALLOWANCE

EQUIPMENT ALLOWANCE

PRINCETON HS ORDER OF MAGNITUDE COST ESTIMATE

SUMMARY TABLE	%	COST PER SQUARE FOOT			
DESCRIPTION ITEM		NEW AREA	RENOVATION AREA	MINOR RENOVATION	IMPACTED AREA
TOTAL GROSS (SF)		16,000	22,555	1,450	1,600
COST/SF		\$425	\$325	\$225	\$125
BUILDING COSTS (SUBTOTAL)		\$6,800,000	\$7,330,375	\$326,250	\$200,000
SITE & UTILITY COSTS (ALLOWANCE)		\$1,895,000	\$100,000	\$0	\$0
SPECIAL CONDITIONS (MOVING & TRANSFORMER ALLOWANCE)		\$70,000	\$10,000	\$0	\$0
SUB-TOTAL		\$8,765,000	\$7,440,375	\$326,250	\$200,000
DESIGN CONTINGENCY	4.0%	\$350,600	\$297,615	\$13,050	\$8,000
GENERAL CONDITIONS (O/P) Inc. Overhead & Profit	10.0%	\$911,560	\$773,799	\$33,930	\$20,800
ESCALATION (2 YEARS)	5.0%	\$501,358	\$425,589	\$18,662	\$11,440
CONTINGENCY	10.0%	\$1,052,852	\$893,738	\$39,189	\$24,024
SOFT COSTS	9.3%	\$1,077,067	\$914,294	\$40,091	\$24,577
FURNITURE & EQUIPMENT (ALLOWANCE)	1.7%	\$220,257	\$186,970	\$8,198	\$5,026
TOTAL COSTS BY CATEGORY		\$12,878,694	\$10,932,380	\$479,370	\$293,866
TOTAL COST (*)	(*)	\$24,584,310			
(*) EXCLUDES (MAINTENANCE WORK, GENERATOR, ETC...)					

*Note – The cost to address deferred maintenance work is not included and should be evaluated prior to pre-referendum. The cost of relocating the Technology office is not included in the estimate above.

PRINCETON HS – AREA BY FLOOR (GROUND & 1ST FLOOR)

OPTION 2 - PRINCETON HIGH SCHOOL

PRINCETON HIGH SCHOOL

PROGRAM - AREA BY FLOOR - ACTUAL

PHS

GROUND
FLOOR

TOTALS

DESCRIPTION	NEW	RENOVATION	MINOR RENOVATION	IMPACTED AREA	TOTALS
PHS - GROUND / GYM LEVEL	\$425/sf	\$325/sf	\$225/sf	\$125/sf	
PERF ARTS / (LEARNING STUDIO STUDENTS)		1,340			1,340
TECH LAB / (LEARNING STUDIO STUDENTS)		1,340			1,340
VISUAL ARTS / (LEARNING STUDIO STUDENTS)		1,440			1,440
NEW CORRIDOR (NUMINA GALLERY SPACE)		1,800			1,800
FLEXIBLE STUDIO GALLERY / LOUNGE		840			840
STORAGE		250			250
NEW FOOD SERVICE STATION @ PERF ARTS AREA / LOBBY		425			425
CRAWL SPACE - FROM SPACE ABOVE				1,600	1,600
					-
SUB TOTAL	-	7,435	-	1,600	9,035

PRINCETON HIGH SCHOOL

PROGRAM - AREA BY FLOOR - ACTUAL

PHS

1ST FLOOR

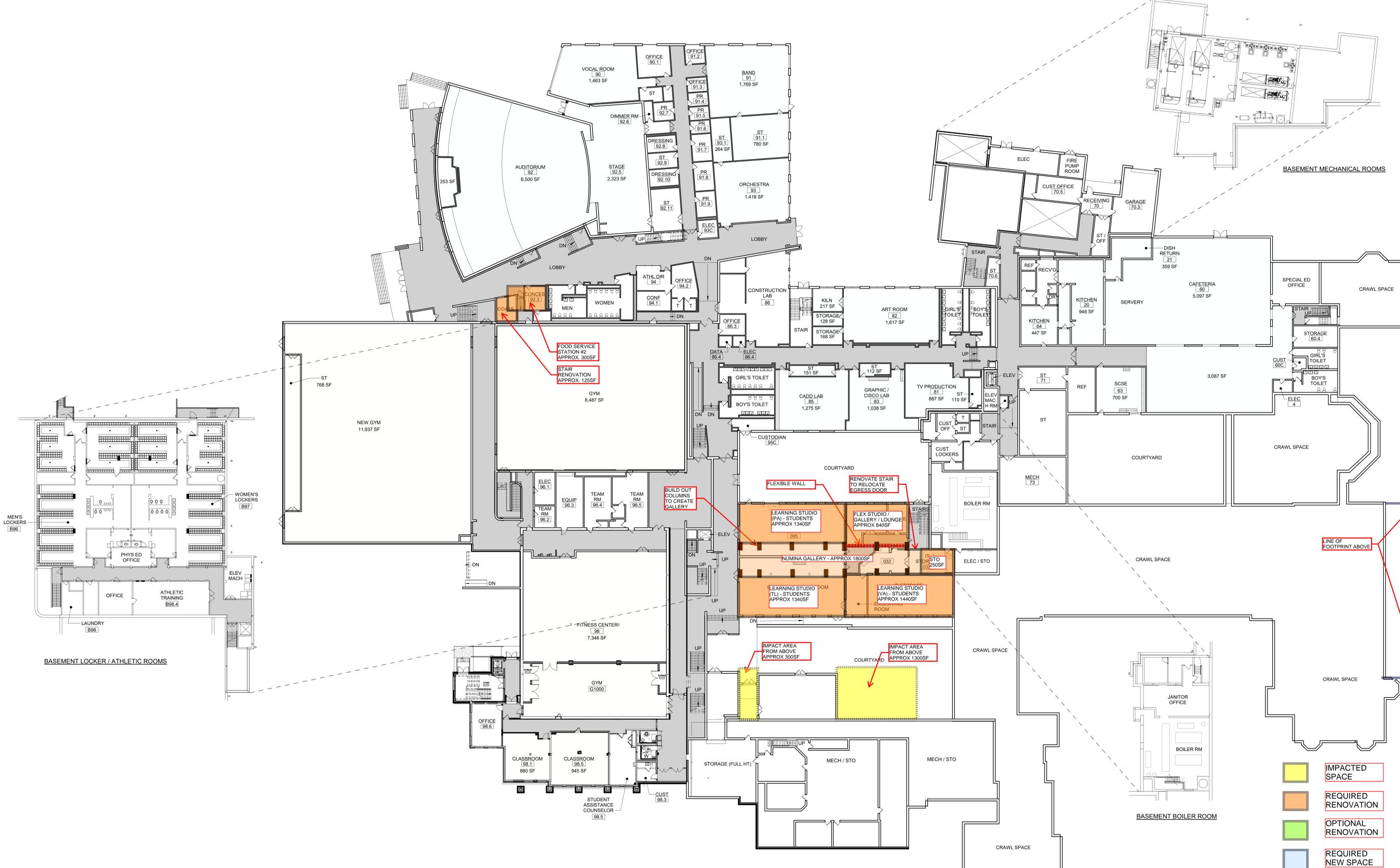
TOTALS

DESCRIPTION	NEW	RENOVATION	MINOR RENOVATION	IMPACTED AREA	TOTALS
PHS - FIRST FLOOR	\$425/sf	\$325/sf	\$225/sf	\$125/sf	
NURSE EXPANSION	300				300
NURSE SUITE		1,000			1,000
FACULTY COLLABORATION SPACE @ COURTYARD	1,300				1,300
MEDIA CENTER RENOVATION		5,300			5,300
CORRIDOR CONNECTION TO ADDITION		600			600
SMALL GROUP INSTRUCTION ROOMS		1,420			1,420
CLASSROOMS / TOILETS / ELEC / STO / COMMONS AREA / STAIR	6,800				6,800
SUB TOTAL	8,400	8,320	-	-	16,720

PRINCETON HS – AREA BY FLOOR (2ND FLOOR & SUMMARY)

PRINCETON HIGH SCHOOL						PHS
PROGRAM - AREA BY FLOOR - ACTUAL						2ND FLOOR
DESCRIPTION		NEW	RENOVATION	MINOR RENOVATION	IMPACTED AREA	TOTALS
PHS - SECOND FLOOR		\$425/sf	\$325/sf	\$225/sf	\$125/sf	
FACULTY COLLABORATION SPACE @ COURTYARD			1,300			1,300
SCIENCE LAB			1,400			1,400
MEDIA CENTER RENOVATION			3,500	1,450		4,950
CORRIDOR CONNECTION TO ADDITION			600			600
SCI LAB / PREP / COMMONS AREA / FLEXIBLE LEARNING STUDIOS		7,600				7,600
						-
SUB TOTAL		7,600	6,800	1,450	-	15,850

PRINCETON HIGH SCHOOL						PHS
PROGRAM - AREA BY FLOOR - ACTUAL						ALL FLOORS
DESCRIPTION (FLOOR)		NEW	RENOVATION	MINOR RENOVATION	IMPACTED AREA	TOTALS
		\$425/sf	\$325/sf	\$225/sf	\$125/sf	
GROUND FLOOR / GYM LEVEL		-	7,435	-	1,600	9,035
FIRST FLOOR		8,400	8,320	-	-	16,720
SECOND FLOOR		7,600	6,800	1,450	-	15,850
TOTAL		16,000	22,555	1,450	1,600	41,605



1 GROUND & GYM LEVEL FLOOR PLAN
1" = 20'-0"

- IMPACTED SPACE
- REQUIRED RENOVATION
- OPTIONAL RENOVATION
- REQUIRED NEW SPACE
- OPTIONAL NEW SPACE



1 1ST FLOOR PLAN
1" = 20'-0"

- IMPACTED SPACE
- REQUIRED RENOVATION
- OPTIONAL RENOVATION
- REQUIRED NEW SPACE
- OPTIONAL NEW SPACE

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1 2ND FLOOR PLAN
1" = 20'-0"

- IMPACTED SPACE
- REQUIRED RENOVATION
- OPTIONAL RENOVATION
- REQUIRED NEW SPACE
- OPTIONAL NEW SPACE

PRINCETON HS ORDER OF MAGNITUDE COST ESTIMATE

SUMMARY TABLE	%	COST PER SQUARE FOOT			
DESCRIPTION ITEM		NEW AREA	RENOVATION AREA	MINOR RENOVATION	IMPACTED AREA
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SITE & UTILITY COSTS (ALLOWANCE)		\$1,895,000	\$100,000	\$0	\$0
SPECIAL CONDITIONS (MOVING & TRANSFORMER ALLOWANCE)		\$70,000	\$10,000	\$0	\$0
SUB-TOTAL		\$8,765,000	\$7,440,375	\$326,250	\$200,000
DESIGN CONTINGENCY	4.0%	\$350,600	\$297,615	\$13,050	\$8,000
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TOTAL COSTS BY CATEGORY		\$12,878,694	\$10,932,380	\$479,370	\$293,866
TOTAL COST (*)	(*)	\$24,584,310			
(*) EXCLUDES (MAINTENANCE WORK, GENERATOR, ETC...)					

*Note – The cost to address deferred maintenance work is not included and should be evaluated prior to pre-referendum. The cost of relocating the Technology office is not included in the estimate above.

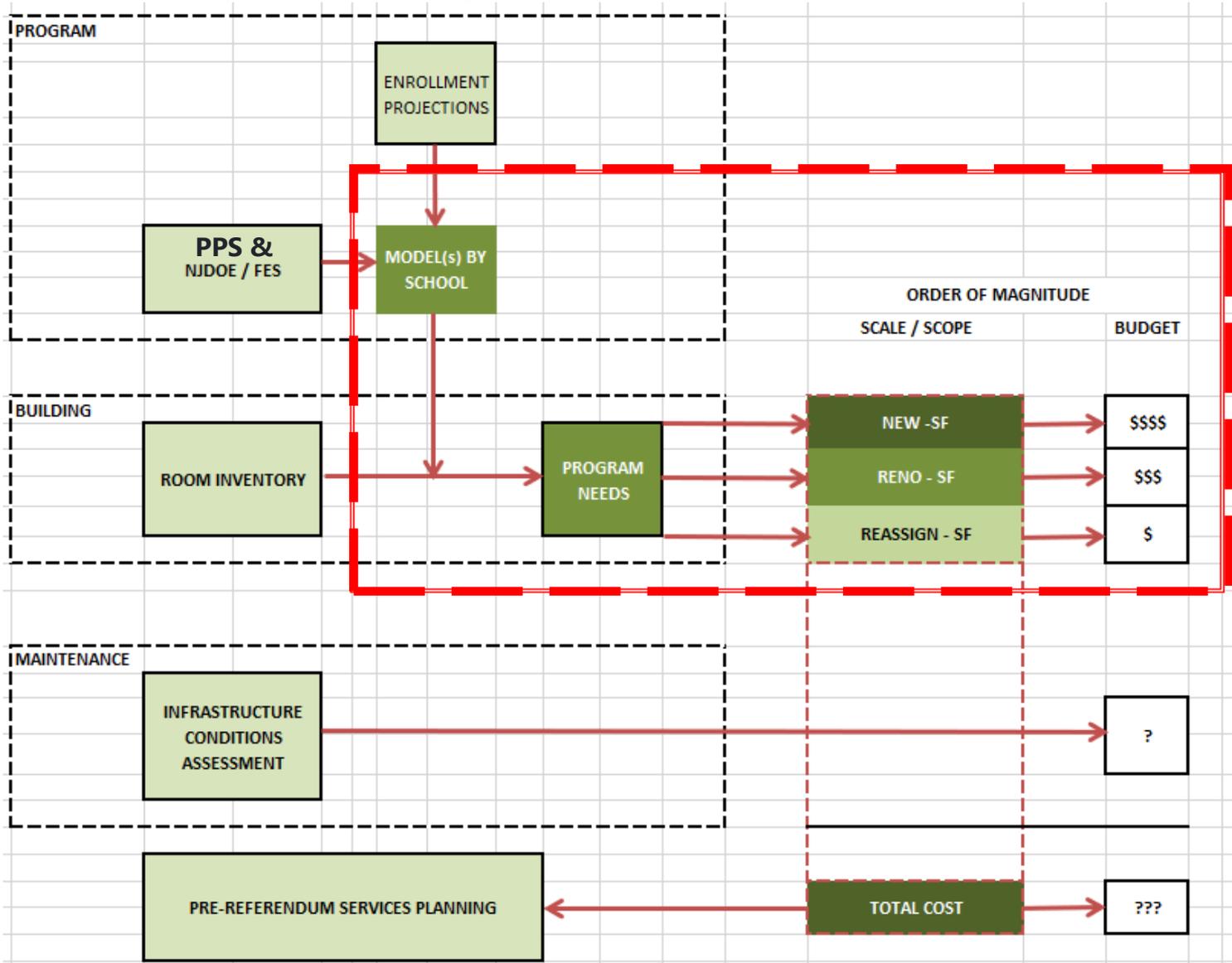
PART – 1

PRINCETON HIGH SCHOOL DISCUSSION & QUESTIONS



PRINCETON UNIFIED MIDDLE SCHOOL SUMMARY RECOMMENDATIONS

PROCESS / SCOPE DIAGRAM



PUMS ENROLLMENT PROJECTION

School Year	6	7	8	6-8 Total
2019-20	262	270	246	778
2020-21	270	259	283	812
2021-22	265	280	275	820
2022-23	270	275	297	842
2023-24	296	284	296	876
2024-25	257	316	308	881
2025-26	262	272	337	871
2026-27	295	277	290	862
2027-28	317	307	292	916
2028-29	283	330	323	936
2029-30	264	295	347	906
Last 5-Yr Avg	284	296	318	898

PUMS PROJECT GOALS

PRESERVE OUR ASSETS:

- Strong House System
- Grade-Level Guidance
- Robust Support Services
- New Learning Commons
- Rich Exploratory Programs
- Excellent Music Offerings
- Embrace Cultural Diversity

FACE NEW CHALLENGES:

- Address Enrollment Growth
- Improve Building Organization: PODS & Circulation
- Provide Adequate Gym Space for PE and Sports
- Expand Exploratory Course Access
- Improve Music Scheduling
- Right-size and Right-location of Support Spaces
- Accommodate Arrival of DLI Cohort
- Provide Space for Student and Faculty Collaboration

PUMS PROJECT GOALS OTHER ACCOMPLISHMENTS

- More efficient Building Utilization
- PODS less isolated
- Broader Access to EP Opportunities
- Improve SE Inclusion, Options
- Balance Teacher Course loads
- Support Incremental Growth
- Integrate DLI
- Eliminate Elevators
- Provide Outdoor Learning Environment

PRINCETON UNIFIED MIDDLE SCHOOL

CONCEPTUAL PROCESS:

STEP 1
BASELINE EDUCATIONAL
CONTENT

STEP 2
OVERLAP EDUCATIONAL CONTENT
& INCORPORATE INTO BUILDING
FOOTPRINT

STEP 3
UPDATE PROJECT SCOPE

(EDUCATIONAL CONTENT +
RENOVATION IMPACTS +
CONSTRUCTION IMPACTS)
DEVELOP ORDER OF MAGNITUDE COST

PRINCETON UNIFIED MIDDLE SCHOOL ORDER OF MAGNITUDE COST APPROACH

STEP 1 – BASE WORK

**DEFINE WORK CATEGORIES AND
COST RANGES BASED ON WORK**

\$425/SF NEW SPACE

\$325/SF RENOVATION (*)

\$225/SF MINOR RENO (*)

\$125/SF IMPACT AREA (*)

(*) Higher % Funding From NJDOE

STEP 2 – UNIQUE ITEMS

**DEFINE OTHER WORK ITEMS
GENERATED BY SCOPE OF WORK**

UNIQUE / SITE / UTILITIES /
PHASING / RESTORATION

STEP 3

ADJUST ESTIMATE

CONTRACTOR GENERAL CONDITIONS O&P

ESCALATION FOR 2YRS

CONTINGENCY

SOFT COSTS (PERMITS / PROF SERVICES)

FURNITURE ALLOWANCE

EQUIPMENT ALLOWANCE

PRINCETON UNIFIED MIDDLE SCHOOL ORDER OF MAGNITUDE COST

SUMMARY TABLE	%	COST PER SQUARE FOOT					SUBTOTAL BY CATEGORY	
DESCRIPTION ITEM		NEW AREA	RENOVATION AREA	MINOR WORK AREA	IMPACTED AREA	OPTIONAL RENOVATION	REMARKS	
TOTAL GROSS (SF)		12,700	8,990	1,550	15,905	2,300		
COST/SF		\$425	\$325	\$225	\$125	\$325		
BUILDING COSTS (SUBTOTAL)		\$5,397,500	\$2,921,750	\$348,750	\$1,988,125	\$747,500	\$11,403,625	
SITE & UTILITY COSTS (ALLOWANCE)		\$2,000,000	\$150,000	\$150,000	\$125,000	\$100,000	\$2,525,000	
SPECIAL CONDITIONS (ALLOWANCE for HAZ MAT, KIT EQUIP, ETC)		\$50,000	\$225,000	\$25,000	\$15,000	\$10,000	\$325,000	
SUB-TOTAL		\$7,447,500	\$3,296,750	\$523,750	\$2,128,125	\$857,500	\$14,253,625	
DESIGN CONTINGENCY	5%	\$372,375	\$164,838	\$26,188	\$106,406	\$42,875	\$712,681	
GENERAL CONDITIONS (O/P)	10%	\$781,988	\$346,159	\$54,994	\$223,453	\$90,038	\$1,496,631	
ESCALATION (2 YEARS)	6%	\$516,112	\$228,465	\$36,296	\$147,479	\$59,425	\$987,776	
CONTINGENCY	10%	\$911,797	\$403,621	\$64,123	\$260,546	\$104,984	\$1,745,071	
SOFT COSTS	10%	\$1,002,977	\$443,983	\$70,535	\$286,601	\$115,482	\$1,919,578	
FURNITURE & EQUIPMENT (ALLOWANCE)	1.5%	\$165,491	\$73,257	\$11,638	\$47,289	\$19,055	\$316,730	
TOTAL COSTS BY CATEGORY		\$11,198,240	\$4,957,073	\$787,523	\$3,199,900	\$1,289,358	\$21,432,093	
TOTAL COST (*)	(*)	\$20,142,736					\$1,289,358	(*)
(*) EXCLUDES (MAINTENANCE WORK, GENERATOR, ETC...)	(*)	\$21,432,093						(*)

*Note – deferred maintenance work is not included in the cost estimate and should be evaluated prior to or part of the pre-referendum phase.

FORMER PUMS SCHEDULE

J.W. SCHOOL SCHEDULE
2019 - 2020

6th Grade	7th Grade	8th Grade
8:30 HOMEROOM	HOMEROOM	HOMEROOM
8:35 House and WL Classes	8:35 House and WL Classes	8:35 EP/PE/WS/Music
9:25 EP/PE/WS/Music	9:25 House and WL Classes	9:25 House and WL Classes
10:15 House and WL Classes	10:15 EP/PE/WS/Music	10:15 House and WL Classes
11:05 LUNCH	11:05 House and WL Classes	11:05 House and WL Classes
11:35 House and WL Classes	11:55 House and WL Classes	11:55 LUNCH
12:25 House and WL Classes	12:45 LUNCH	12:25 EP/PE/WS/Music
1:15 EP/PE/WS/Music	1:15 House and WL Classes	1:15 House and WL Classes
2:05 House and WL Classes	2:05 EP/PE/WS/Music	2:05 House and WL Classes
2:55	2:55	2:55

House Classes:

- Math
- Science
- Social Studies
- English

World Language:

- Spanish
- French

PE/Health

Workshop:

- Literary Advantage
- English Excel

Exploratory:

- Art
- Computers
- Design/Engineering
- Drama
- Food Science
- Coding/Digital Art
- Robotics
- SORCE, SERVE & SPEAR

NEW PUMS SCHEDULE "SLOTS" VS. "PERIODS"

Class Slots

Four-day Rotating Schedule

Class Slots		Four-day Rotating Schedule				
1	EP 1		A Day	B Day	C Day	D Day
2	Math	1	Pre-Algebra	Phy Ed/Health	Spanish	Art
3	PE	2	Phy Ed/Health	Spanish	Art	Pre-Algebra
4	WL	3	Spanish	Art	Pre-Algebra	Phy Ed/Health
5	SS	4	Lunch	Lunch	Lunch	Lunch
6	Sci	5	Science	ELA	Digital Citizenship	Ancient History
7	ELA	6	ELA	Digital Citizenship	Ancient History	Science
8	EP2	7	Digital Citizenship	Ancient History	Science	ELA

Source: PUMS Team

MIDDLE SCHOOL SCHEDULE IMPACTS

Former JWMS Schedule	Proposed PUMS Schedule
"Gordian Knot" with two "houses" per grade	Double Cascade, 4-day rotating schedule
5 "House " periods, 2 EP/PE Periods, Lunch; All House classes meet every day	8 "slots" = 5 "House" + 2 EP's + PE; Only 6 of the 8 slots meet each day
EP's, PE scheduled by grade	PE/Health slots rotate like house classes
Music competes with PE, EP's and SE/ASI	Music ensembles use extra PE/Health slots
Teachers "own" Classrooms	Teachers share classrooms, workspaces
Academic classrooms empty during EP's	All spaces are available every period
Only Academic Classrooms count for capacity	All spaces, including PE, EP & Music count

CAPACITY IMPACT AT PUMS

ROOM INVENTORY			
ROOM TYPE	EXIST'G 19-20	EXIST'G 20-21	TARGET
Instructional			
CLASSROOMS	24	26	24
SCIENCE	6	6	6
SELF-CONTAINED SE	2	2	4
PE Stations for 2x/week			
Health	1	1	2
Support Rooms			
Support Rooms	6	6	6
Resource Rooms	11	11	12
Exploratory Classrooms	9	11	9
Music	3	3	3
Flexible Space	0	0	3
New Instructional NSF			
General Ed CR's(House + Sci)	30	32	30
PE/Health	3	3	6
EP & Music	12	14	12
SCSE	2	2	4
CAPACITY	642.6	746.1	979

NOTES:

1. Capacity generating spaces shown in yellow.
2. 48 Station Model, 16 per grade: 10 House, 2 PE/Health, 4 EP
3. Adding Capacity for SCSE, PE/Health Only
4. PE gains movement studio, existing pool.
5. Health gains SEL space.
6. Reduce EP, CR Space.
7. Target utilization factor is reduced to .85 from .9 for Existing.

TEACHING STATION MODELING PROCESS

Subject	Percent of Schedule	Low		Target		Existing	
		Per grade	Per school	Per grade	Per school	Per grade	Per school
Target Enrollment		299	897	299	897	299	897
Class size@Utilation Rate		> 23 @ 0.85		< 23 @ 0.85		<22 @ 0.85	
Target Class Size		19.93		18.69		17.94	
Total Stations		15	45	16	48	17	50
House (ELA, SS, WL, Math)	50%	7.67	23	8	24	8.67	26
Science	12.5%	2	6	2	6	2	6
EP/Music*	25%	3.67	11	4	12	4.67	14
PE/Health	12.5%	2	6	2	6	1.33	4

*Includes Makers' Space

- To achieve the target class size **of 23 students at 85% utilization**, we divide the projected enrollment of 897 students by 19.55 to determine a need for **at least 45.9 teaching stations**.
- We propose a total of 48 teaching stations, **in proportion to House & WL, Science, EP/Music, and PE/Health for each grade according to the proposed PUMS schedule**.
- Two existing classrooms and two EP spaces can be reassigned to other uses, such as **teacher collaboration, resource and support spaces**.

PUMS INSTRUCTIONAL SPACE NEEDS

ROOM INVENTORY	EXISTING		TARGET	PROPOSED	
	2019-20	2020-21		NEW	NET SF
Instructional					
CLASSROOMS	24	26	24	-	-
SCIENCE	6	6	6	-	-
SELF-CONTAINED SE	2	2	4	2	1,600
PE Stations	2	2	4	1	2,000
Health	1	1	2	1	800
Support Rooms	6	6	6	-	-
Resource Rooms	11	11	12	1	800
Exploratory Classrooms	9	11	9	-	-
Music	3	3	3	-	-
Flexible Space	0	0	3	3	3,000
New Instructional NSF					8,200

NOTES:

1. TWO CLASSROOM SPACES REASSIGNED
2. ADDED SCSE
3. PE STATIONS FROM POOL, NEW MOVEMENT STUDIO
4. NEW SEL STATION
5. ADD ONE RESOURCE ROOM
6. REPURPOSE TWO EXISTING EP's
7. "NEW" SPACE CAN BE NEW CONSTRUCTION OR ALTERATIONS

PUMS NON-INSTRUCTIONAL SPACE NEEDS

ROOM INVENTORY				PROPOSED		
ROOM TYPE		EXIST 20-21	TARGET	NEW	TOTAL	NET SF
Non-Instructional						
Cafeteria		4,082				
Cafeteria Annex		965				
	Subtotal	5,047	5,600	553		553
Kitchen						
Kitchen		1,009				
Support		440				
	Subtotal	1,449	1,500			51
Servary						
Servary				900		900
Auditorium						
Auditorium		3,751				
Storage						
Storage		362				
Stage						
Stage		1,108				
Dressing						
Dressing		332				
Media Commons						
Media Commons		5,225				
Admin						
	Total SF Per LRFP	2,698				
	Teacher Workspace / (1) Collab. Rm. By Gr. Level			3,000	3,000	3,000
New Non-Instructional NSF						4,504

PRINCETON UNIFIED MIDDLE SCHOOL AREA BY FLOOR (BASEMENT & 1ST FLOOR)

PRINCETON UNIFIED MIDDLE SCHOOL

BASEMENT LEVEL

AREA BY FLOOR	NEW AREA	RENOVATION AREA	MINOR WORK AREA	IMPACTED AREA	OPTIONAL RENOVATION	TOTALS
BASEMENT LEVEL						
POD - B				2,625		2,625
CAFETERIA ADDITION				750		750
POD - C				3,200		3,200
OUTDOOR TEACHING				1,050		1,050
						-
						-
SUB TOTAL	-	-	-	7,625	-	7,625

FIRST FLOOR

AREA BY FLOOR	NEW AREA	RENOVATION AREA	MINOR WORK AREA	IMPACTED AREA	OPTIONAL RENOVATION	TOTALS
FIRST FLOOR						
POD - B - COLLABORATION / COMMONS AREA				1,425		1,425
POD - B - RENOVATE STAIR / REMOVE ELEV		500				500
POD - B - MOVEMENT STUDIO / STAIR	2,125					2,125
POD - B - EGRESS AREA / IMPACTED AREA FROM ABOVE			500			500
						-
POD - C - COLLABORATION / COMMONS AREA				1,450		1,450
POD - C - STAIR / GIRLS ROOM / REMOVE ELEV		1,170				1,170
POD - C - FACULTY STUDIO / LEARNING STUDIO / STAIR / TOILET	3,200					3,200
POD - C - EGRESS AREA / IMPACTED AREA FROM ABOVE						-
OUTDOOR TEACHING STUDIO			1,050			1,050
CORRIDOR TIE-IN CR WING				60		60
VESTIBULE @ CORRIDOR - MAIN CORRIDOR		110				110
						-
CAFETERIA WORK / ADDITION	750			750		1,500
KITCHEN WORK		1,350				1,350
						-
POD - D - CLASSROOM RENOVATION TO CREATE SGI ROOM					2,300	2,300
EGRESS UPGRADES FROM NEW COURTYARD @ POD - D	200					200
						-
EGRESS UPGRADES FROM NEW COURTYARD @ CR WING		100				100
CR WING - RENOVATE SGI & READING ROOM / OFFICE TO SGI ROOMS		250		1,000		1,250
						-
						-
SUB TOTAL	6,275	3,480	1,550	4,685	2,300	18,290

PRINCETON UNIFIED MIDDLE SCHOOL AREA (SECOND FLOOR & SUMMARY)

							SECOND FLOOR
AREA BY FLOOR		NEW AREA	RENOVATION AREA	MINOR WORK AREA	IMPACTED AREA	OPTIONAL RENOVATION	TOTALS
SECOND FLOOR							
POD - B - COLLABORATION / COMMONS AREA / UPGRADE STAIR / ELEV			925		1,245		2,170
POD - B - RENOVATE OFFICE & TOILET TO TEAM ROOM			475				475
POD - B - LEARNING STUDIO / FACULTY STUDIO / CORRIDOR / STAIR		2,925	2,575				5,500
POD - B - CORRIDOR / TOILETS / RESOURCE ROOM & SCSE							-
STAIR CONNECTION TO UPPER GYM FLOOR LEVEL			85				85
							-
POD - C - COLLABORATION / COMMONS AREA					1,350		1,350
POD - C - STAIR / TOILET ROOM / REMOVE ELEV			975				975
POD - C - FACULTY STUDIO / LEARNING STUDIO / STO / STAIR / TOILET		3,500					3,500
							-
EGRESS UPGRADES FROM NEW ADDITION TO CR WING			225				225
CR WING - RENOVATE SGI & READING ROOM / OFFICE TO SGI ROOMS			250		1,000		1,250
							-
							-
SUB TOTAL		6,425	5,510	-	3,595	-	15,530
ALL FLOORS							
		NEW AREA	RENOVATION AREA	MINOR WORK AREA	IMPACTED AREA	OPTIONAL RENOVATION	TOTALS
SUMMARY BY FLOOR							
BASEMENT FLOOR		-	-	-	7,625	-	7,625
FIRST FLOOR		6,275	3,480	1,550	4,685	2,300	18,290
SECOND FLOOR		6,425	5,510	-	3,595	-	15,530
							-
TOTAL		12,700	8,990	1,550	15,905	2,300	41,445



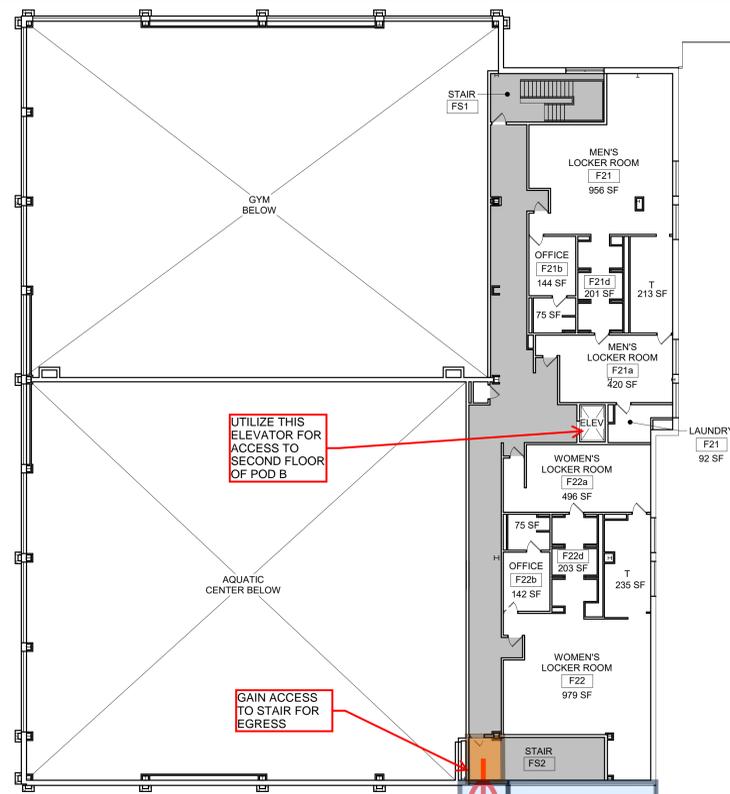
PROGRAM CONTENT: (# ROOMS)

1. CLASSROOMS	(24)
2. SELF CONTAINED SE	(4)
3. EP CLASSROOMS	(12)
4. HEALTH ROOMS	(2)
5. SMALL GROUP ROOMS	(6)
6. RESOURCE ROOMS	(12)
7. PHYSICAL ED	(4)

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

04-15-2021 REVISED PLAN FROM COMMITTEE MEETING DISCUSSIONS. COST ADJUSTMENTS HAVE NOT BEEN MADE TO THE COST ESTIMATE.

P:\040190011\DWGs\A-Arch\040190011A_PUMS_R19.rvt 3/25/2021 9:29:46 AM



UTILIZE THIS ELEVATOR FOR ACCESS TO SECOND FLOOR OF POD B

GAIN ACCESS TO STAIR FOR EGRESS

REMOVE ELEVATOR / INFILL FLOOR

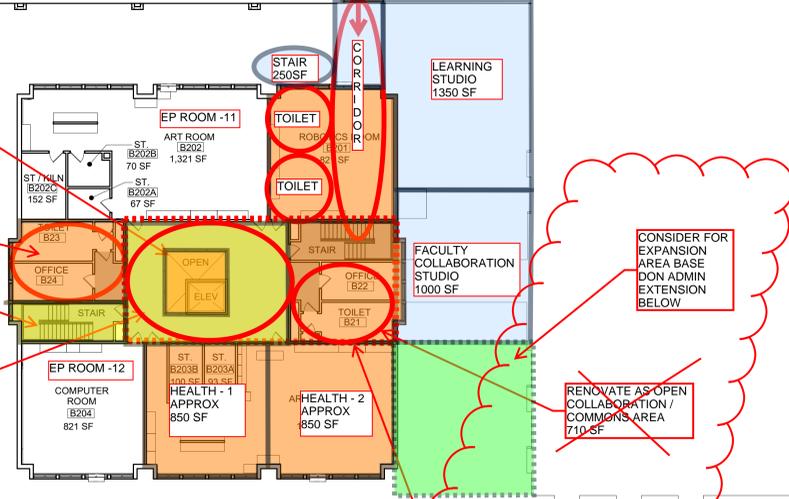
OFFICE / TEAM ROOM 475 SF

UPGRADE STAIRS - 225 SF

RENOVATE AS OPEN COLLABORATION / COMMONS AREA 1420 SF

- IMPACTED SPACE
- REQUIRED RENOVATION
- MINOR WORK AREA
- REQUIRED NEW SPACE
- OPTIONAL RENOVATION

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



CONSIDER FOR EXPANSION AREA BASE DON ADMIN EXTENSION BELOW

RENOVATE AS OPEN COLLABORATION / COMMONS AREA 710 SF

CAN MAINTAIN THE FACULTY SPACE HERE

REMOVE STAIR RENOVATE AREA 685 SF

CONSIDER REMOVING ELEVATOR / INFILL FLOOR

RENOVATE AS OPEN COLLABORATION / COMMONS AREA 1700 SF

INFILL FLOOR AREA 300 SF

IMPACT AREA 1000 SF

RENOVATE STAIRS



MAINTAIN AS AN OFFICE AREA

RENOVATE LINK 225 SF

RENOVATE AREA ADD SPACE TO (2) ROOMS APPROX 600 SF EACH

04-15-2021 REVISED PLAN FROM COMMITTEE MEETING DISCUSSIONS. COST ADJUSTMENTS HAVE NOT BEEN MADE TO THE COST ESTIMATE.

PRINCETON UNIFIED MIDDLE SCHOOL ORDER OF MAGNITUDE COST

SUMMARY TABLE	%	COST PER SQUARE FOOT					SUBTOTAL BY CATEGORY	
DESCRIPTION ITEM		NEW AREA	RENOVATION AREA	MINOR WORK AREA	IMPACTED AREA	OPTIONAL RENOVATION	REMARKS	
TOTAL GROSS (SF)		12,700	8,990	1,550	15,905	2,300		
COST/SF		\$425	\$325	\$225	\$125	\$325		
BUILDING COSTS (SUBTOTAL)		\$5,397,500	\$2,921,750	\$348,750	\$1,988,125	\$747,500	\$11,403,625	
SITE & UTILITY COSTS (ALLOWANCE)		\$2,000,000	\$150,000	\$150,000	\$125,000	\$100,000	\$2,525,000	
SPECIAL CONDITIONS (ALLOWANCE for HAZ MAT, KIT EQUIP, ETC)		\$50,000	\$225,000	\$25,000	\$15,000	\$10,000	\$325,000	
SUB-TOTAL		\$7,447,500	\$3,296,750	\$523,750	\$2,128,125	\$857,500	\$14,253,625	
DESIGN CONTINGENCY	5%	\$372,375	\$164,838	\$26,188	\$106,406	\$42,875	\$712,681	
GENERAL CONDITIONS (O/P)	10%	\$781,988	\$346,159	\$54,994	\$223,453	\$90,038	\$1,496,631	
ESCALATION (2 YEARS)	6%	\$516,112	\$228,465	\$36,296	\$147,479	\$59,425	\$987,776	
CONTINGENCY	10%	\$911,797	\$403,621	\$64,123	\$260,546	\$104,984	\$1,745,071	
SOFT COSTS	10%	\$1,002,977	\$443,983	\$70,535	\$286,601	\$115,482	\$1,919,578	
FURNITURE & EQUIPMENT (ALLOWANCE)	1.5%	\$165,491	\$73,257	\$11,638	\$47,289	\$19,055	\$316,730	
TOTAL COSTS BY CATEGORY		\$11,198,240	\$4,957,073	\$787,523	\$3,199,900	\$1,289,358	\$21,432,093	
TOTAL COST (*)	(*)	\$20,142,736					\$1,289,358	(*)
(*) EXCLUDES (MAINTENANCE WORK, GENERATOR, ETC...)	(*)	\$21,432,093						(*)

*Note – deferred maintenance work is not included in the cost estimate and should be evaluated prior to or part of the pre-referendum phase.

PART – 1

PRINCETON UNIFIED MIDDLE SCHOOL DISCUSSION & QUESTIONS

Princeton School Facilities Plan

ES Presentation
Board of Education Meeting
May 18, 2021



Live to Learn, Learn to Live



COMMUNITY PARK

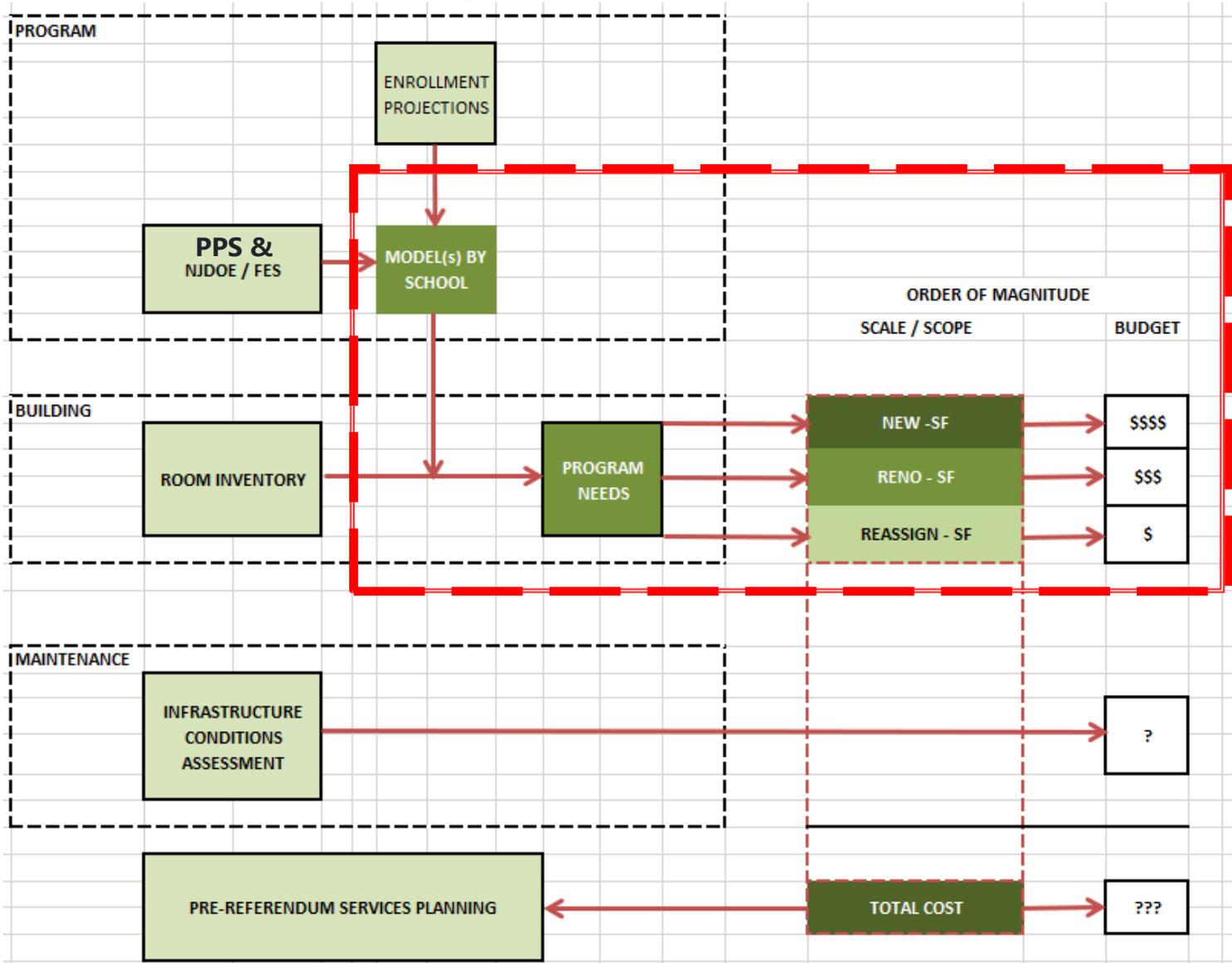
LITTLEBROOK

JOHNSON PARK

RIVERSIDE

PRINCETON ELEMENTARY SCHOOLS SUMMARY RECOMMENDATIONS

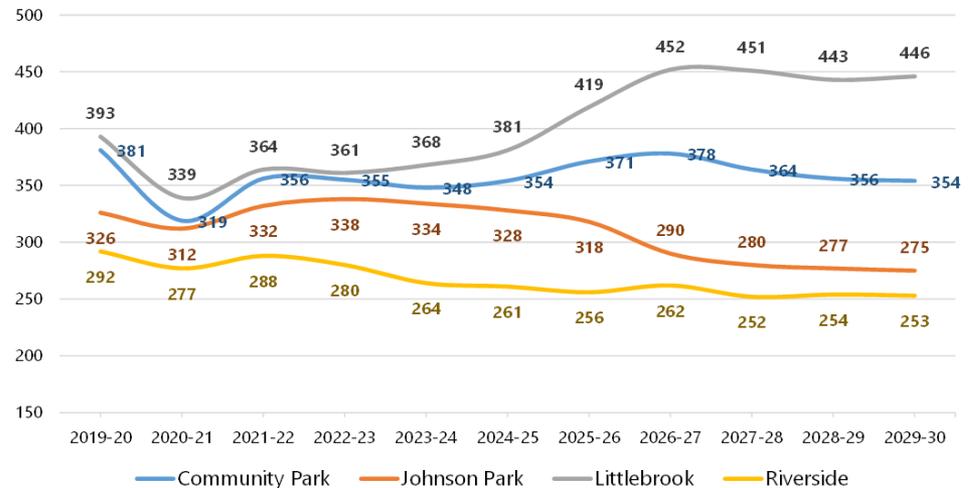
PROCESS / SCOPE DIAGRAM



ELEMENTARY ENROLLMENT PROJECTIONS

School Year	K	1	2	3	4	5	K-5 Total	PK-5 Total
2019-20	197	208	248	239	237	263	1,392	1,487
2020-21	148	193	201	236	237	243	1,258	1,358
2021-22	220	217	201	198	256	248	1,340	1,440
2022-23	195	233	225	198	215	268	1,334	1,434
2023-24	184	211	246	225	219	229	1,314	1,414
2024-25	163	202	225	248	251	235	1,324	1,424
2025-26	203	178	214	227	275	267	1,364	1,464
2026-27	207	222	190	219	252	293	1,383	1,483
2027-28	205	220	231	190	237	264	1,347	1,447
2028-29	202	218	229	230	204	247	1,330	1,430
2029-30	201	216	226	227	246	213	1,329	1,429
Last 5-Yr Avg	204	211	218	219	243	257	1351	1451

Princeton Public Schools Projected K-5 Enrollment by School



ELEMENTARY SCHOOL PROGRAM SUMMARY

PRESERVE OUR ASSETS:

- Small Neighborhood Schools
- School-Wide Enrichment
- DLI Program
- Strong Music & Arts
- Special Ed Inclusion
- High Performing District
- Innovation Goal
- PreK Program Success

FACE NEW CHALLENGES:

- Class Size Break-Points
- Scheduling “Focus 30” with Other Priorities
- DLI Scheduling & Enrollment
- Adequately Sized Classrooms & Resource Rooms
- Uneven Enrollment Pressure
- Need Flexible, Collaborative Space
- Provide Space for Inclusion
- Parity Across Buildings

- “Building Appearance Should Reflect PPSD High Aspirations”

PRINCETON – ELEMENTARY OPTIONS



Scenario 1

Four PK-5 Buildings at 370 Student Model

- Redistrict attendance zones to better balance enrollments
- Better balance programming – PK, SCSE, PKSE in all buildings
- 370 student model relies on a 90% utilization factor, some buffer available in model to accommodate enrollment fluctuations
- Renovate all schools to right size core spaces and enable reconfiguration

Scenario 2

Four PK-5 Buildings; One at 521 Student Model, and Three at 370 Student Model

- No redistricting
- Enlarge Littlebrook building to accommodate projected growth with current attendance boundaries, maintain all other schools at about 370 students
- Renovate all schools to enlarge core spaces and accommodate programming; classroom addition to Littlebrook

Scenario 3

Two Sets of Paired PK-2/ 3-5 Buildings

- Pair Johnson Park as PK-2 with Community Park as 3-5 schools
- Pair Riverside as PK-2 with Littlebrook as 3-5 schools
- Attendance zones are merged rather than redrawn
- Renovate and reconfigure all schools to accommodate grade configurations

SCENARIO 3 - ELEMENTARY SCHOOLS ORDER OF MAGNITUDE COST SUMMARY TABLE

COST SUMMARY TABLE						
LOCATION	SCHOOL TYPE	Required		Optional		EST. TOTAL COST
		NEW	RENO	NEW	RENO	
Johnson Park - (Lower School)	(PK-2)	\$ 2,413,317	\$ 1,714,319	\$ 3,774,096	\$ 2,263,920	\$ 10,165,653
Community Park - (Upper School)	(3-5)	\$ 1,060,055	\$ 1,366,847	\$ 4,195,111	\$ 3,122,392	\$ 9,744,405
Riverside - (Lower School)	(PK-2)	\$ 5,796,471	\$ 319,445	\$ 3,097,466	\$ 2,300,560	\$ 11,513,941
Littlebrook - (Upper School)	(3-5)	\$ 2,999,730	\$ 3,361,453	\$ 2,202,509	\$ 6,494,464	\$ 15,058,156
SUB-TOTALS		\$ 12,269,572	\$ 6,762,064	\$ 13,269,181	\$ 14,181,336	\$ 46,482,154
SUB-TOTAL BY CATEGORY		\$19,031,636		\$27,450,518		\$ 46,482,154

*Note – The cost to address deferred maintenance work is not included and should be evaluated prior to, or part of, pre-referendum.

PRINCETON ES

CONCEPTUAL PROCESS:

**BASELINE EDUCATIONAL
CONTENT**

**OVERLAP EDUCATIONAL
CONTENT & INCORPORATE INTO
BUILDING FOOTPRINT**

**UPDATED PROJECT SCOPE OF WORK
(EDUCATIONAL CONTENT +
RENOVATION IMPACTS +
CONSTRUCTION IMPACTS)**

PRINCETON ES

ORDER OF MAGNITUDE COST APPROACH

STEP 1 – BASE WORK

DEFINE WORK CATEGORIES AND
COST RANGES BASED ON WORK

\$400/SF NEW SPACE

\$285/SF RENOVATION (*)

(*) Higher % Funding From NJDOE

STEP 2 – UNIQUE ITEMS

DEFINE OTHER WORK ITEMS
GENERATED BY SCOPE OF WORK

UNIQUE / SITE / UTILITIES /
PHASING / RESTORATION

STEP 3

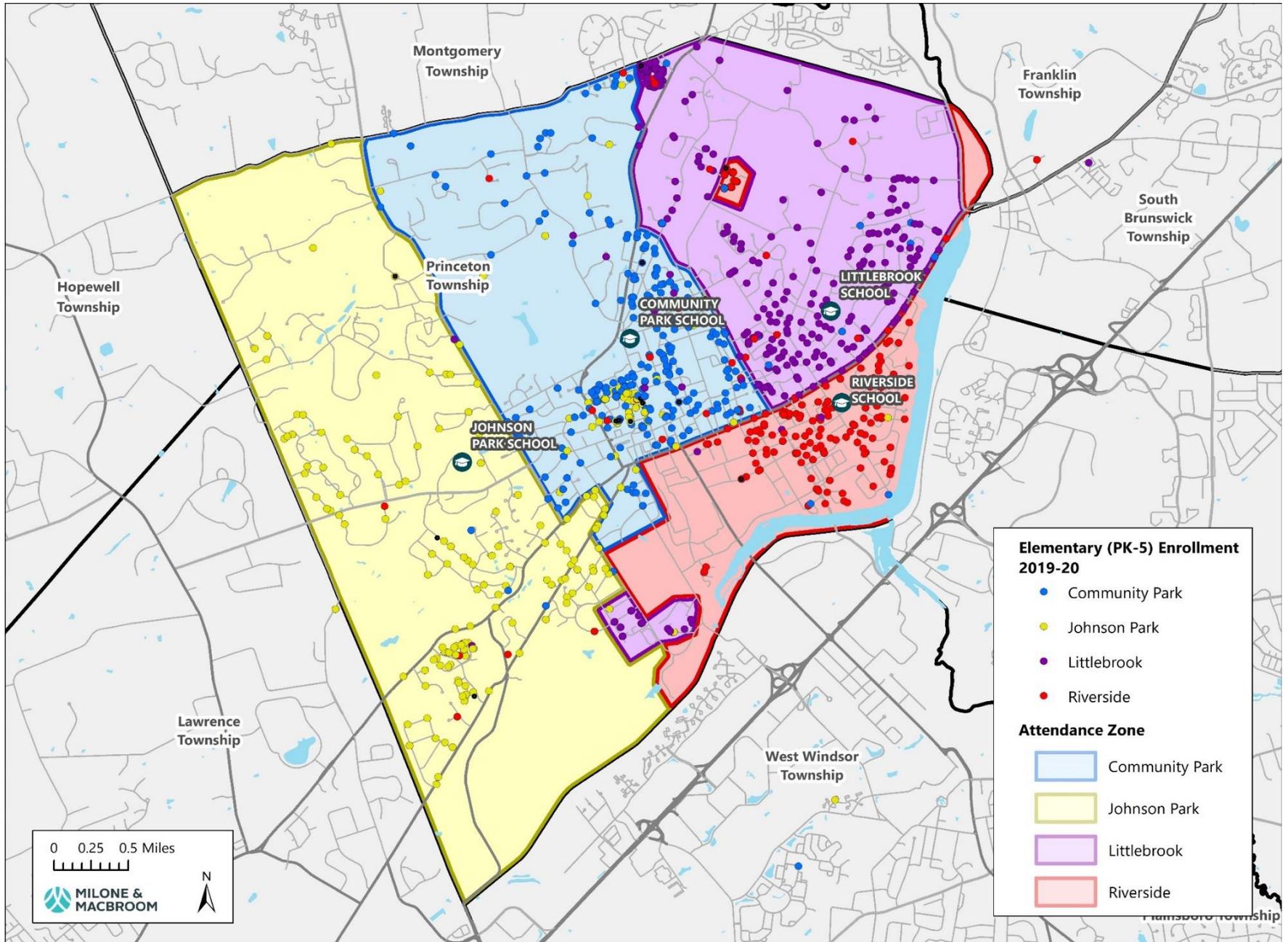
ADJUST ESTIMATE

CONTRACTOR GENERAL CONDITIONS O&P
ESCALATION COSTS UNTIL PROJECT BID
CONTINGENCY (DESIGN & CONSTR)
SOFT COSTS (PERMITS / PROF SERVICES)
FURNITURE ALLOWANCE
EQUIPMENT ALLOWANCE

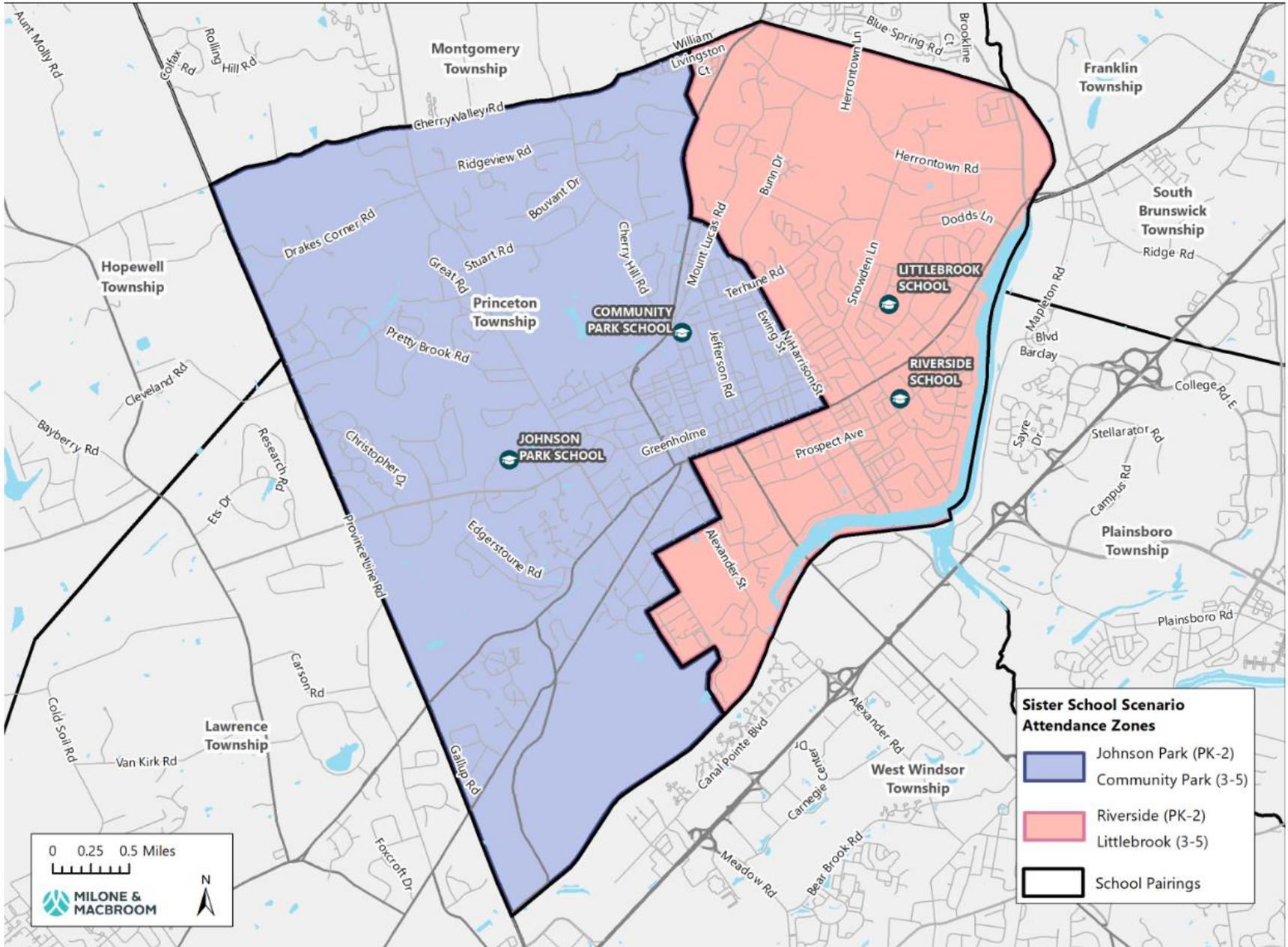
SISTER SCHOOL BENEFITS

- Maintains Historic Geographic Continuity
- Avoids Redistricting Via Merger of Sending Areas
- Pre-K Equity
- Special ED Parity / Expansion
- DLI Flexibility
- Stabilizes Enrollment and Class Size Fluctuations
- Improve Staff Utilization
- Class Size Parity vs. School Size
- Age-Appropriate Specialized Spaces

PRINCETON – EXISTING ZONING MAP



PRINCETON – PROPOSED ATTENDANCE ZONES



PRINCETON – ES

SISTER SCHOOL ENROLLMENT

ADJUSTED PROJECTIONS										
PPS Target Enrollment: PK-5										
(Average of last five projected years)										
SCHOOL	PK	K	1	2	3	4	5	Orig Total	Adjusted Total	
Johnson Park (Lower School)	49	96	99	101				346	345	
Community Park (Upper School)					98	111	119	328	328	
Riverside (Lower School)	49	107	112	117				361	385	
Littlebrook (Upper School)					120	132	138	390	390	
TOTAL	98	204	211	218	219	243	257	1426	1449	
Target Class Size										
		18	18	20	20	22	22			
JP/CP		16.1	16.4	16.9	16.4	18.5	19.8		6	CR/Grade
RS/LB		15.3	16.0	16.7	17.2	18.9	19.7		7	CR/Grade
In-District Pre-K										
PK	30	27							2	
PKSE	24	21.6							2	
Combined PK	54	49	Per school						4	Per School
									8	District Wide Total (JP & RS)
Alternative # Classrooms per Grade:										
Target Class Size										
		18	18	20	20	22	22			
JP/CP		19.3	19.7	20.3	19.6	22.2	23.8		5	CR/Grade
RS/LB		17.9	18.7	19.4	20.1	22.0	23.0		6	CR/Grade

Note – Red Text in the “Alternative” chart above represents values over the proposed Target Class Size.

JOHNSON PARK LOWER SCHOOL (PK-2) ES



JOHNSON PARK LOWER SCHOOL (PK-2) TARGET CAPACITY

PRINCETON - JOHNSON PARK		
TARGET CAPACITY (PK-2)		
Instructional Space	Rooms	Capacity @.9
PKSE	2	22
PK	2	27
K	6	97
1st	6	97
2nd	6	108
GE Subtotal	22	351
SCSE Subtotal	3	32
TOTAL CAPACITY	25	383
TARGET ENROLLMENT		345
DEFICIT / (Surplus)		(38)

JOHNSON PARK LOWER SCHOOL (PK-2) ES INSTRUCTIONAL SPACE NEEDS

PRINCETON - JOHNSON PARK									
Instructional Space	Model		Spaces		Required		Optional		Remarks
	# Rms	SF (min)	Exist	New	NEW SF	RENO SF	NEW SF	RENO SF	
PKSE	2	950	2			950			Reuse Rm #206 / Renovate Rm #209 for PKSE - Toilets Exist
PK	2	950	2						Reuse Rm #208 & 210 for PK - Toilets Exist
K	6	950	6			500			Reuse Rm109 w/ Toilet & Renovate 104, 105, 110, 112, 114 to Add (3) Toilets for K use
1	6	850	6						Reuse Rm #119, 125, 132, 134, 137, 214
2	6	850	6	0					Reuse Rm # 216, 217, 218, 219, 220, 221
SCSE	3	850	2	1	850	200			Renovate Rm #118 & 124 to Add (2) Toilet Rms / Add (1) New SCSE with Toilet
Total CR	25		24	1					
RES	3	400	2	1					Reuse Rm #115 & 117
AIS	2	400		2	800				Add (2) New AIS Rooms in Addition
ESL/WL	2	400	1	1	400				Reuse Rm #111 & (1) New WL Room in Addition
SPEECH	2	400	2			800			Renovate Rm #135 into (2) Speech Rooms
OTPT	1	600	1			100			Reassign Rm #207 OTPT - Renovate to Provide a Barrier Free Toilet
TOTAL SGI	10		6	4					
TOTAL Instructional NET (SF)					2,050	2,550	0	0	

JOHNSON PARK LOWER SCHOOL (PK-2) ES NON-INSTRUCTIONAL SPACE NEEDS

PRINCETON - JOHNSON PARK									
Non-Instructional Space	Model		Spaces		Required		Optional		Remarks
	# Rms	SF (min)	Exist	New	NEW SF	RENO SF	NEW SF	RENO SF	
Science	1	950	925					925	Renovate Rm #212 to PK Enrichment
Art	1	1,250	1,224						Reuse Rm #210, 201a, 201b
Music - Vocal	1	1,000	1,054						Reuse Rm#200, 200a
Music - Ensemble	1	600	601						Reuse Rm #302 & 302a
Media Center	1	2,500	2,667						Reuse Rm #202, 202a
Flex/Entry Space	1	1,000		1			1,000		Consider as Part of Addition
Gang Toilets	1	400		1			400		Consider as Part of Addition
Faculty Collaboration	1	600		1			600		Consider as Part of Addition
Cafetorium	1	3,000	2,244					922	Exg Café undersized / Expand Café by Renovating (1) Sto, (1) Elec & (1) Stage
Stage & Storage	1	1,000	517	1			1,000		Exg Stage Undersized / Build New Stage onto Exg Café
Kitchen	1	1,000	544					1,020	Exg Kit Undersized / Expand Kitchen to include Adj Sto Rms and Corridor
Kitchen / Café Storage	2	200	2				400		Add New Sto Adjacent to Café Kitchen
Gym	1	4,000	3,809						Reuse Exg Rm #301
Gym Storage/Office		250	561						Reuse Exg Rm #301a, 301b, 301c, 301d, 301e
Toilets & Bldg Storage	4		1,493						Reuse Exg Gang Toilet Rooms
Main Office	1	1,000	1,201						Reuse Exg Rms #A1, A2, A4
CST	1	1,000	1,010						Reuse Exg Rm #303, 303a, 303c, 303e, 303d
Guidance	1		153						Reuse Exg Rm #303b
Nurse's Suite	1	600	627						Reuse Exg Rms #A5, A5a, A5b, A5c
Faculty Work	1	360	221						Reuse Exg Rm #116
Faculty Work			347						Reuse Exg Rm #215b
Fac Lounge	1	600	701						Reuse Exg Rm #103
IT (shared)	1	125	85						Reuse Exg Rm Adj to Cust #100
Community Office	1	150		1			150		Consider incorporating this are as part of the Stage Addition
TOTAL Non-Instructional NET (SF)					0	0	3,550	2,867	



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

- REASSIGNED SPACE
- REQUIRED RENOVATION
- OPTIONAL RENOVATION
- REQUIRED NEW SPACE
- OPTIONAL NEW SPACE

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JOHNSON PARK LOWER SCHOOL (PK-2) ES ORDER OF MAGNITUDE COST

					Required		Optional	
SUMMARY TABLE (SF)					NEW SF	RENO SF	NEW SF	RENO SF
TOTAL Instructional NET (SF)					2,050	2,550	-	-
TOTAL Non-Instructional NET (SF)					-	-	3,550	2,867
TOTAL NET (SF)					2,050	2,550	3,550	2,867
GROSSING FACTOR					0.5			
TOTAL GROSS (SF)					1,025	1,275	1,775	1,434
TOTAL GROSS (SF)					3,075	3,825	5,325	4,301
DESCRIPTION ITEM					COST PER SQUARE FOOT			
COST/SF					\$ 400	\$ 285	\$ 400	\$ 285
BUILDING COSTS (SUBTOTAL)					\$1,230,000	\$1,090,125	\$2,130,000	\$1,225,643
SITE & UTILITY COSTS (ALLOWANCE)					\$ 350,000	\$ 25,000	\$ 250,000	\$ 125,000
SPECIAL CONDITIONS (ALLOWANCE for HAZ MAT, KIT EQUIP, STAGE RIG)					\$ 25,000	\$ 25,000	\$ 130,000	\$ 155,000
DESIGN CONTINGENCY					5%			
					\$ 80,250	\$ 57,006	\$ 125,500	\$ 75,282
GENERAL CONDITIONS (O/P)					10%			
					\$ 168,525	\$ 119,713	\$ 263,550	\$ 158,092
ESCALATION (2 YEARS)					6%			
					\$ 111,227	\$ 79,011	\$ 173,943	\$ 104,341
CONTINGENCY					10%			
					\$ 196,500	\$ 139,586	\$ 307,299	\$ 184,336
SOFT COSTS					10%			
					\$ 216,150	\$ 153,544	\$ 338,029	\$ 202,769
FURNITURE & EQUIPMENT (ALLOWANCE)					1.5%			
					\$ 35,665	\$ 25,335	\$ 55,775	\$ 33,457
TOTAL COSTS BY CATEGORY					\$2,413,317	\$1,714,319	\$3,774,096	\$2,263,920
TOTAL COST (*)					\$10,165,653			
(*) EXCLUDES (MAINTENANCE WORK, GENERATOR, ETC...)								

COMMUNITY PARK UPPER SCHOOL (3-5) ES



COMMUNITY PARK UPPER SCHOOL (3-5) ES TARGET CAPACITY

PRINCETON - COMMUNITY PARK		
TARGET CAPACITY (3-5)		
Instructional Space	Rooms	Capacity @.9
Classrooms (GR 3)	6	108
Classrooms (GR 4/5)	12	238
GE Subtotal	18	346
SCSE Subtotal	3	32
TOTAL CAPACITY	21	378
TARGET ENROLLMENT		328
DEFICIT / (Surplus)		(50)

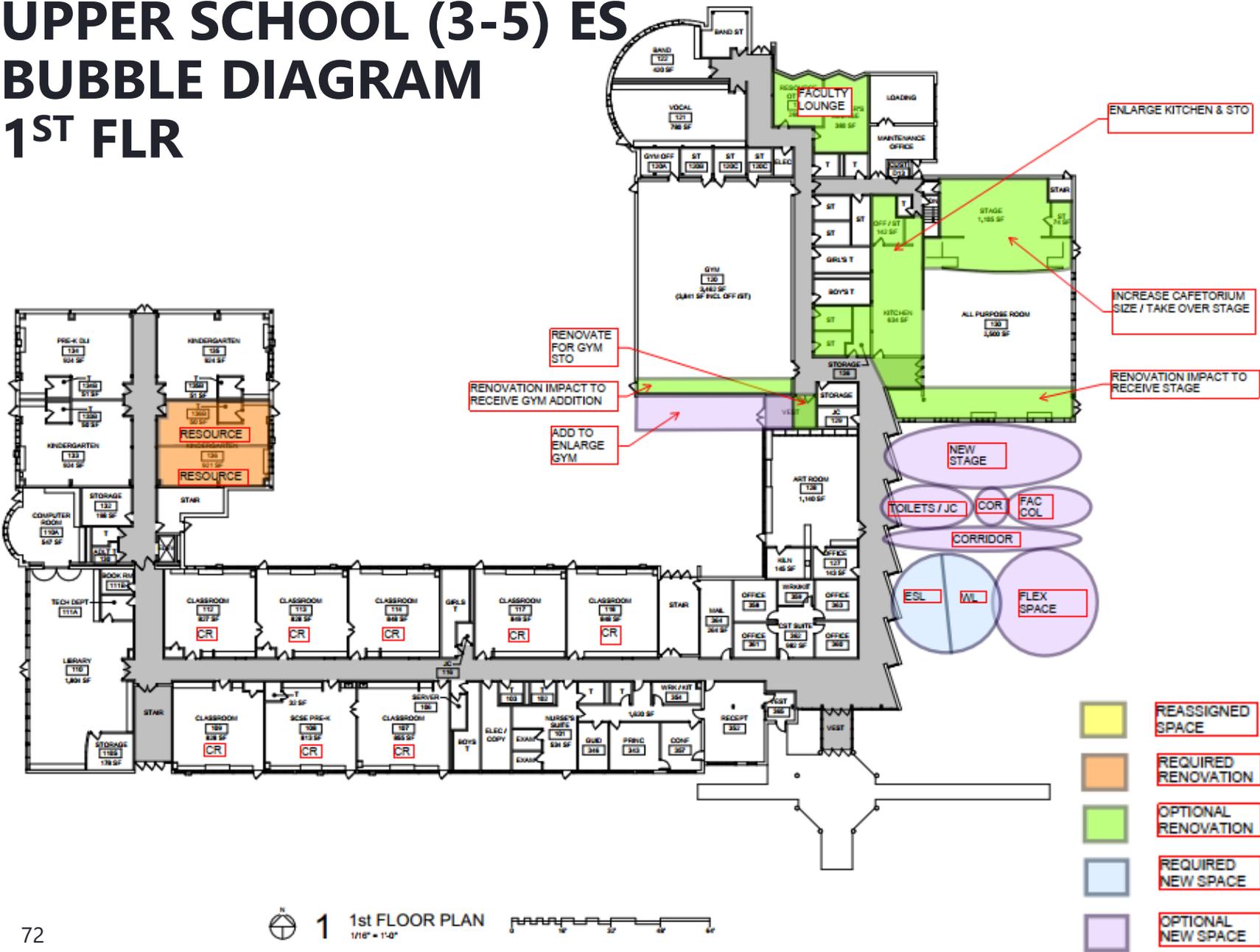
COMMUNITY PARK UPPER SCHOOL (3-5) ES INSTRUCTIONAL SPACE NEEDS

PRINCETON - COMMUNITY PARK									
Instructional Space	Model		Spaces		Required		Optional		Remarks
	# Rms	SF (min)	Exist	New	NEW SF	RENO SF	NEW SF	RENO SF	
Grade 3	6	850	6						Reuse Existing Rooms 107,108,109, 112, 113, 114
Grades 4&5	12	850	12						Reuse Existing Rooms 117, 118, 205, 208, 209, 210, 211, 212, 215, 216, 219, 237
SCSE	3	850	3						Reassign (3) PK/K to SCSE #133,134,135
Total CR	21		21	0					
RES	3	400	2			994			Renovate K #136 into (2) Resource Rooms & Reuse Rm#214
AIS	2	400	2						Reuse Rm #220 & 221
ESL/WL	2	400		2	800				New addition - one larger room with divider (2*400=800sf) - First Floor
SPEECH	2	400	2	1		840			Renovate #204 & 206 into equal speech rooms
OTPT	1	400	1						Reassign Room #236 OTPT
TOTAL SGI	10		7	3					
TOTAL Instructional NET (SF)					800	1,834	0	0	

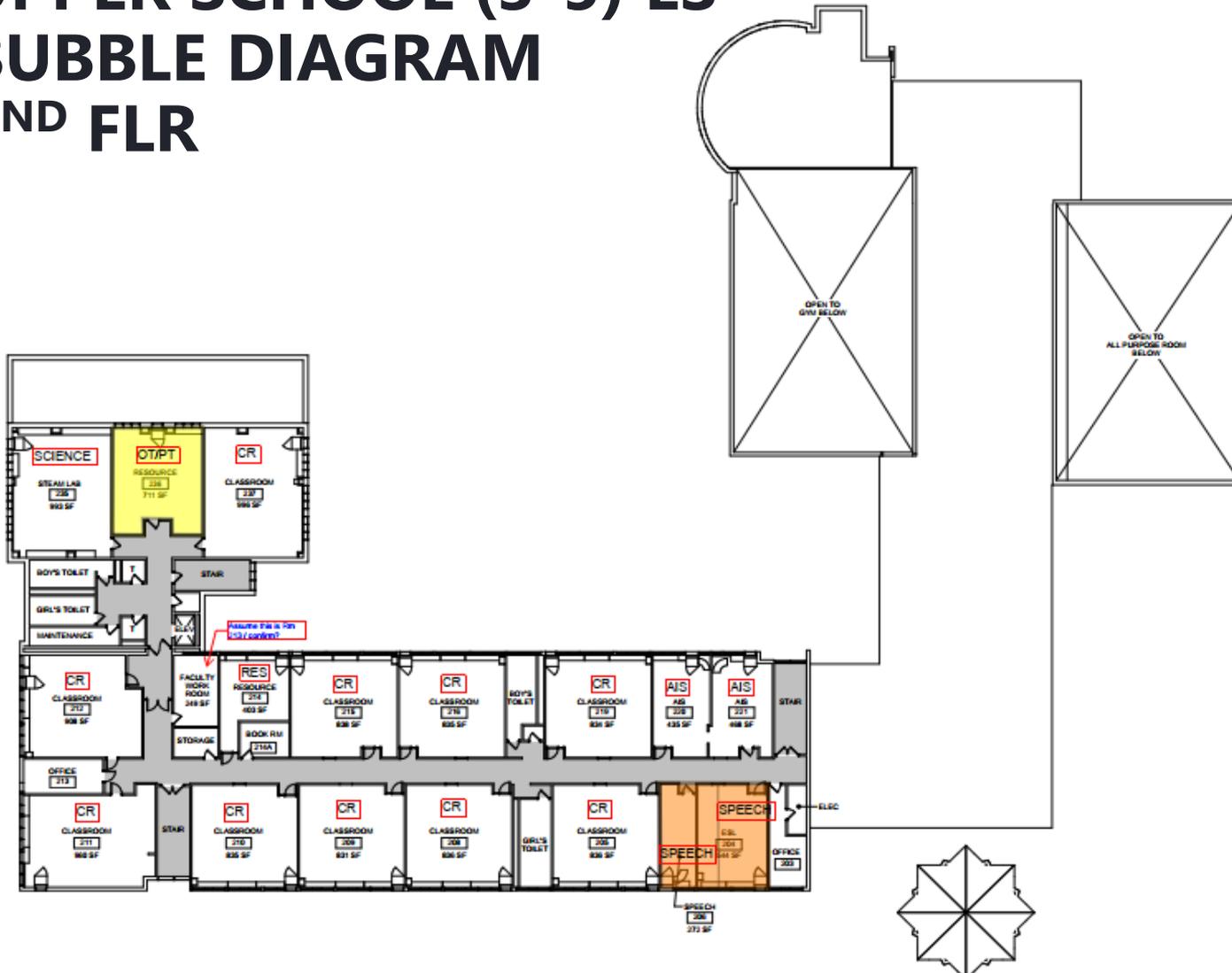
COMMUNITY PARK - UPPER SCHOOL (3-5) ES NON-INSTRUCTIONAL SPACE NEEDS

PRINCETON - COMMUNITY PARK									
Non-Instructional Space	Model		Spaces		Required		Optional		Remarks
	# Rms	SF (min)	Exist	New	NEW SF	RENO SF	NEW SF	RENO SF	
Science	1	950	993						Reuse Rm #235 Steam Rm
Art	1	1,250	1,285						Reuse Rm #128 / Kiln Rm
Music - Vocal	1	1,000	780						Reuse Rm #121
Music - Ensemble	1	600	602						Reuse Rm #122 + Sto Rm / Does PPS need this space for PK-2 model?
Media Center (Book, Tech, Sto)	1	2,500	2,168						Reuse Rm #110, 111B, 111A, 110S
Computer (Part of MC)			547						Reuse Rm #110A
Flex/Entry Space	1	1,000		1			1,000		
Gang Toilets	1	400		1			400		Consider New Toilets by Entry as Part of Addition
Faculty Collaboration		600		1			600		Consider New Room as Part of Addition
Cafetorium	1	3,000	2,500					1,852	Café Undersized / Renovate Stage & Storage into Cafetorium #130 Space / Renovate end of Café to accept Stage Addition
Stage	1	1,000	1,234	1			1,250		Exg Stage Undersized / Build New Stage and Storage Adjacent to Cafetorium Space
Kitchen	1	1,000	834	1				1,257	Exg Kit Undersized / Enlarge Kitchen / Reno Storage #136 / Off / Corridor Space
Kitchen Storage	1	200	142	1				202	Reno (2) Small Sto Rms into Kit Sto
Toilets & Bldg Storage	3		1,197						Reuse Existing Toilets 1st & 2nd Floors
Gym		4,000	3,462						Reuse Existing Rm #120 / Gym is undersized
Gym Storage/Office		250	386						Reuse Existing Rm #120a, 120b, 120c, 120d
Gym Addition w/ Sto				1			600	310	Expand Gym and Storage to Upsize Gym to FES / Renovate end of Gym to accept Gym Addition
Main Office	1	1,000	1,620						Reuse Existing
CST	1	1,000	982						Reuse Existing
Guidance	1								Reuse Existing In Main Office
Nurse's Suite	1	600	588						Reuse Existing
Faculty Work	1	360	249						Reuse Existing Rm 2nd Floor
Mail Room	1		264						Reuse Existing
Fac Lounge	1	600	380	1				640	Renovate Teachers Lounge and OT/PT Rm #124 To Faculty Lounge
IT	1	140							Reuse Existing Off #203
Faculty Office	1	200	249						Reuse Existing Exg Rm #213
Community Office	1	140							Reuse Existing Rm#127
TOTAL Non-Instructional NET (SF)					0	0	3,850	4,261	

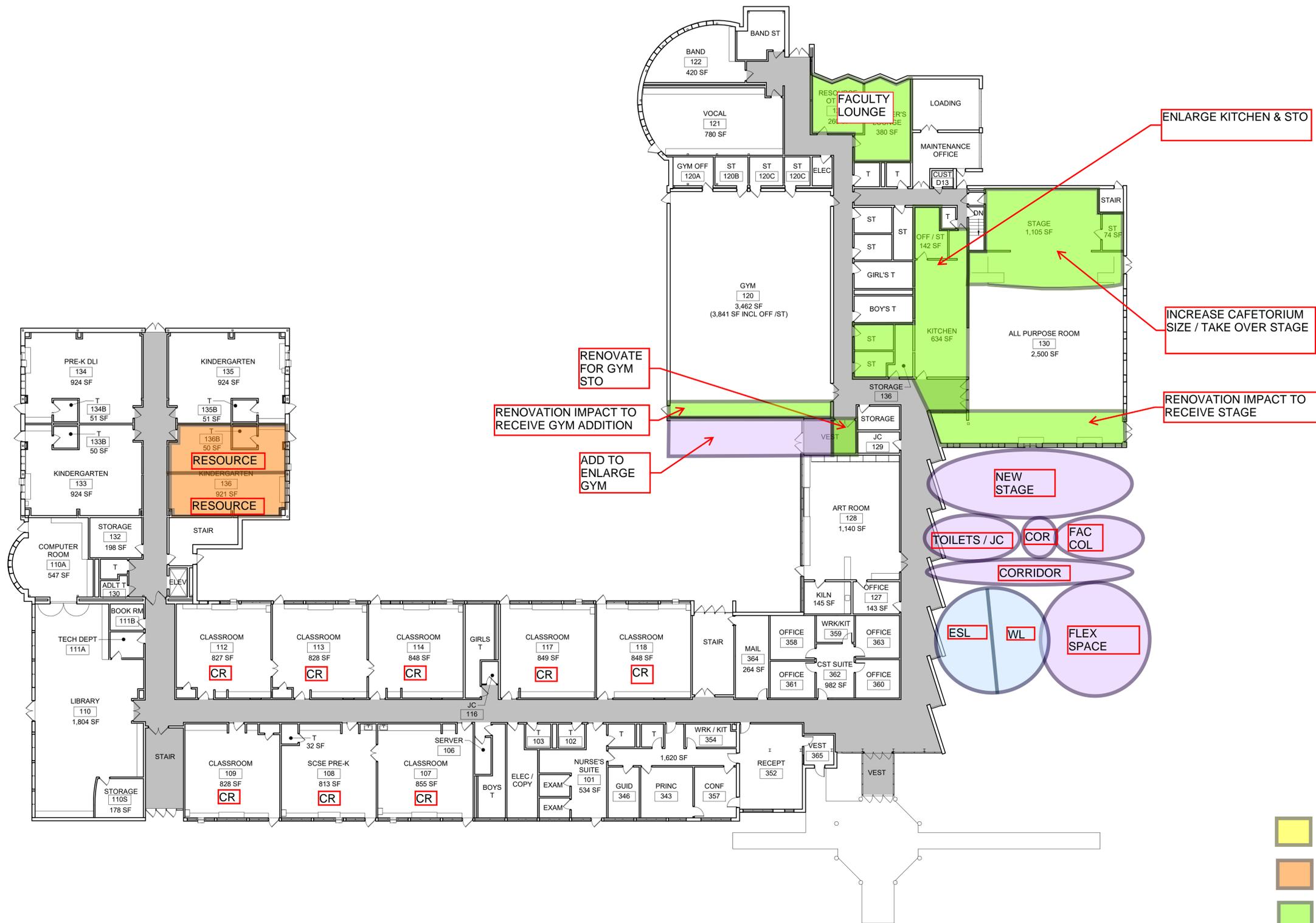
COMMUNITY PARK UPPER SCHOOL (3-5) ES BUBBLE DIAGRAM 1ST FLR

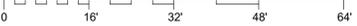


COMMUNITY PARK UPPER SCHOOL (3-5) ES BUBBLE DIAGRAM 2ND FLR



- REASSIGNED SPACE
- REQUIRED RENOVATION
- OPTIONAL RENOVATION
- REQUIRED NEW SPACE
- OPTIONAL NEW SPACE

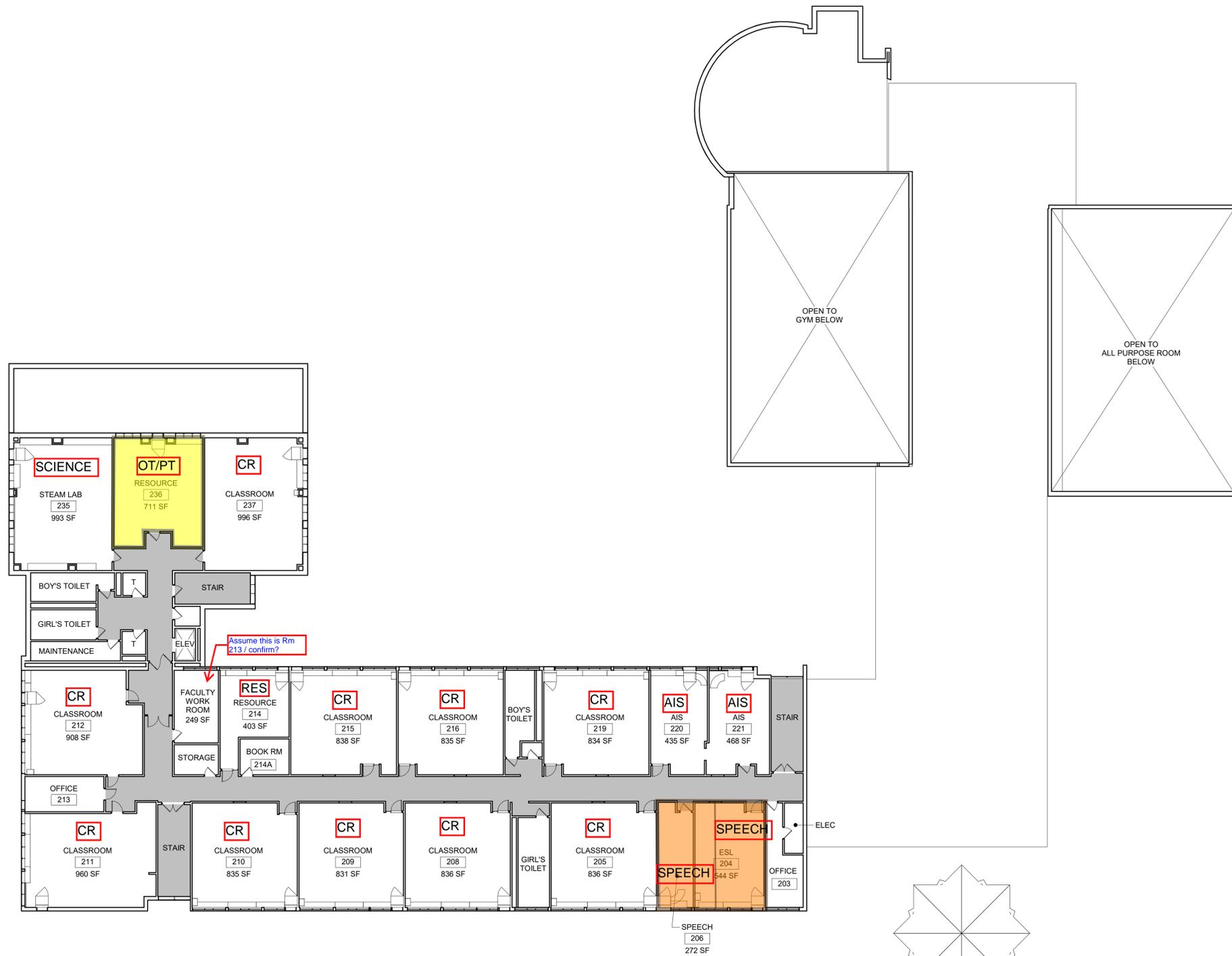



1 1st FLOOR PLAN
 1/16" = 1'-0"


- REASSIGNED SPACE
- REQUIRED RENOVATION
- OPTIONAL RENOVATION
- REQUIRED NEW SPACE
- OPTIONAL NEW SPACE

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1 2nd FLOOR PLAN
 1/16" = 1'-0"

- REASSIGNED SPACE
- REQUIRED RENOVATION
- OPTIONAL RENOVATION
- REQUIRED NEW SPACE
- OPTIONAL NEW SPACE

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COMMUNITY PARK UPPER SCHOOL (3-5) ES ORDER OF MAGNITUDE COST

					Required		Optional	
SUMMARY TABLE (SF)					NEW SF	RENO SF	NEW SF	RENO SF
TOTAL Instructional NET (SF)					800	1,834	0	0
TOTAL Non-Instructional NET (SF)					0	0	3,850	4,261
TOTAL NET (SF)					800	1,834	3,850	4,261
GROSSING FACTOR	0.5				400	917	1,925	2,131
TOTAL GROSS (SF)					1,200	2,751	5,775	6,392
DESCRIPTION ITEM	%	COST PER SQUARE FOOT						
COST/SF					\$ 400	\$ 285	\$ 400	\$ 285
BUILDING COSTS (SUBTOTAL)					\$ 480,000	\$ 784,035	\$ 2,310,000	\$ 1,821,578
SITE & UTILITY COSTS (ALLOWANCE)					\$ 200,000	\$ 100,000	\$ 350,000	\$ 100,000
SPECIAL CONDITIONS (ALLOWANCE for HAZ MAT, KIT EQUIP, STAGE RIG)					\$ 25,000	\$ 25,000	\$ 130,000	\$ 155,000
DESIGN CONTINGENCY	5%				\$ 35,250	\$ 45,452	\$ 139,500	\$ 103,829
GENERAL CONDITIONS (O/P)	10%				\$ 74,025	\$ 95,449	\$ 292,950	\$ 218,041
ESCALATION (2 YEARS)	6%				\$ 48,857	\$ 62,996	\$ 193,347	\$ 143,907
CONTINGENCY	10%				\$ 86,313	\$ 111,293	\$ 341,580	\$ 254,235
SOFT COSTS	10%				\$ 94,944	\$ 122,422	\$ 375,738	\$ 279,659
FURNITURE & EQUIPMENT (ALLOWANCE)	1.5%				\$ 15,666	\$ 20,200	\$ 61,997	\$ 46,144
TOTAL COSTS BY CATEGORY					\$ 1,060,055	\$ 1,366,847	\$ 4,195,111	\$ 3,122,392
TOTAL COST (*)					\$9,744,405			
(*) EXCLUDES (MAINTENANCE WORK, GENERATOR, ETC...)								

RIVERSIDE LOWER SCHOOL (PK-2) ES



RIVERSIDE LOWER SCHOOL (PK-2) ES TARGET CAPACITY

PRINCETON - RIVERSIDE		
TARGET CAPACITY (PK-2)		
Instructional Space	Rooms	Capacity @.9
PKSE	2	22
PK	2	27
K	7	113
1st	7	113
2nd	7	126
GE Subtotal	25	401
SCSE Subtotal	3	32
TOTAL CAPACITY	28	434
TARGET ENROLLMENT		385
DEFICIT / (Surplus)		(49)

RIVERSIDE LOWER SCHOOL (PK-2) ES INSTRUCTIONAL SPACE NEEDS

PRINCETON - RIVERSIDE									
Instructional Space	Model		Spaces		Required		Optional		Remarks
	# Rms	SF (min)	Exist	New	NEW SF	RENO SF	NEW SF	RENO SF	
PKSE	2	950	2						Reassign Rm #1 & 2 PKSE / Toilets Exist
PK	2	950	2						Reassign Rm #3 & 4 PK / Toilets Exist
K	7	950	4	3	2,850				Reassign Rm #13, 14, 17 & 18 for K / Toilets Exist
1	7	850	7						Reuse Rm #19, 20, 21, 25, 29, 30, 38
2	7	850	5	2	1,700				Reuse Rm #40, 42, 44, 47, 51 / (2) New CR
SCSE	3	850	2	1	850				Reuse Rm #26, 41 / (1) New SCSE w/ Toilet
Total CR	28		22	6					
RES	3	400	3						Reuse Rm #22, 46, 52
AIS	2	400	2						Reuse Rm #43, 45
ESL/WL	2	400	2						Reuse Rm #12, Reassign Rm #7 Former Band
SPEECH	2	400	2			380			Reuse Rm #49, 54 Renovate Storage Rm 54A to be part of Speech
OTPT	1		1						Reuse Rm #50
TOTAL SGI	10		10	0					
TOTAL Instructional NET (SF)					5,400	380	0	0	

RIVERSIDE – LOWER SCHOOL (PK-2) ES NON-INSTRUCTIONAL SPACE NEEDS

PRINCETON – RIVERSIDE									
Non-Instructional Space	Model		Spaces		Required		Optional		Remarks
	# Rms	SF (min)	Exist	New	NEW SF	RENO SF	NEW SF	RENO SF	
Science	1	950	924					924	Sci Rm #10 Renovate into PK-2 Enrichment
Art	1	1,250	1,233						Reuse Rm #34, Sto & Kiln
Music – Vocal	1	1,000	1,138						Reuse Rm #9 & Sto #9a
Music – Ensemble	1	600	717						Reassign Band Rm #7 to wL / Reassign Office #8 to Faculty Collaboration
Media Center	1	2,500	2,357						Reuse Rm MC #35 & 35c & Sto
Flex/Entry Space		1,000		1				1,000	Consider as Part of New Addition
Gang Toilets		400		1	400				Consider New Toilets in Addition
Faculty Collaboration		600							Reassign Off #8 for Faculty Collaboration 224sf
Cafetorium	1	3,000	2,487					1,000	Exg Café undersized / Expand Café by Renovating (2) Sto 126sf & Stage 405sf + 343sf for tie into Café for Stage
Stage & Storage	1	1,000	657	1				1,000	Exg Stage Undersized / Build New Stage onto Exg Café
Kitchen	1	1,000	533					1,000	Exg Kit Undersized / Expand Kitchen to include Adj Sto Rms and Corridor
Kitchen & Café Storage		200	289	3				650	Add New Sto Adjacent to Café, Kitchen, & Corridor
Gym		4,000	3,775						Reuse Exg Rm #56 / Gym is Slightly Undersized
Storage/Office		250	411						Reuse Exg Rm #56a, 56b, 56c, 56d
Toilets & Bldg Storage	2		1,165						Reuse Existing Toilets
Main Office	1	1,000	1,280						Reuse Exg Rm #57, 57a, 57b, 57c
CST	1	1,000	839						Reuse Exg Rm #36, 36a, 36b, 36e, 36d
Guidance			289						Reuse Exg Rm #24
Nurse's Suite	1	600	556						Reuse Exg Rm #57d, 57e, 57f, 57g
Faculty Work	1	360	235						Reuse Exg Rm #48
Fac Lounge	1	600	637						Reuse Staff Room #33
IT (shared)	1	125	88						Confirm Location in Rm #54a
Community Office	1	150		1				150	Consider incorporating this are as part of the Stage Addition
TOTAL Non-Instructional NET (SF)					400	0	2,800	2,924	

RIVERSIDE LOWER SCHOOL (PK-2) ES ORDER OF MAGNITUDE COST

					Required		Optional	
SUMMARY TABLE (SF)					NEW SF	RENO SF	NEW SF	RENO SF
TOTAL Instructional NET (SF)					5,400	380	0	0
TOTAL Non-Instructional NET (SF)					400	0	2,800	2,924
TOTAL NET (SF)					5,800	380	2,800	2,924
GROSSING FACTOR	0.5				2,900	190	1,400	1,462
TOTAL GROSS (SF)					8,700	570	4,200	4,386
DESCRIPTION ITEM	%				COST PER SQUARE FOOT			
COST/SF					\$ 400	\$ 285	\$ 400	\$ 285
BUILDING COSTS (SUBTOTAL)					\$ 3,480,000	\$ 162,450	\$ 1,680,000	\$ 1,250,010
SITE & UTILITY COSTS (ALLOWANCE)					\$ 350,000	\$ 25,000	\$ 250,000	\$ 125,000
SPECIAL CONDITIONS (ALLOWANCE for HAZ MAT, KIT EQUIP, STAGE RIG)					\$ 25,000	\$ 25,000	\$ 130,000	\$ 155,000
DESIGN CONTINGENCY	5%				\$ 192,750	\$ 10,623	\$ 103,000	\$ 76,501
GENERAL CONDITIONS (O/P)	10%				\$ 404,775	\$ 22,307	\$ 216,300	\$ 160,651
ESCALATION (2 YEARS)	6%				\$ 267,152	\$ 14,723	\$ 142,758	\$ 106,030
CONTINGENCY	10%				\$ 471,968	\$ 26,010	\$ 252,206	\$ 187,319
SOFT COSTS	10%				\$ 519,164	\$ 28,611	\$ 277,426	\$ 206,051
FURNITURE & EQUIPMENT (ALLOWANCE)	1.5%				\$ 85,662	\$ 4,721	\$ 45,775	\$ 33,998
TOTAL COSTS BY CATEGORY					\$ 5,796,471	\$ 319,445	\$ 3,097,466	\$ 2,300,560
TOTAL COST (*)					\$11,513,941			
(*) EXCLUDES (MAINTENANCE WORK, GENERATOR, ETC...)								

LITTLEBROOK UPPER SCHOOL (3-5) ES



LITTLEBROOK UPPER SCHOOL (3-5) ES TARGET CAPACITY

PRINCETON - LITTLEBROOK		
TARGET CAPACITY (3-5)		
Instructional Space	Rooms	Capacity @.9
Classrooms (GR 3)	7	126
Classrooms (GR 4/5)	14	277
GE Subtotal	21	403
SCSE Subtotal	3	32
TOTAL CAPACITY	24	436
TARGET ENROLLMENT		390
DEFICIT / (Surplus)		(46)

LITTLEBROOK UPPER SCHOOL (3-5) ES INSTRUCTIONAL SPACE NEEDS

PRINCETON - LITTLEBROOK									
Instructional Space	Model		Spaces		Required		Optional		Remarks
	# Rms	SF (min)	Exist	New	NEW SF	RENO SF	NEW SF	RENO SF	
Grade 3	7	850	7						Reassign #8,9,10,11,12,13,15
Grades 4&5	14	850	11	3	2,550	2,632		1,973	Renovate #16 & 17 for CR, Reassign #28,30,31,32,33,34,35,36,39,41 + (3) New CR + Renovate 28 & 31 to provide storage room
SCSE	3	850	3			920			Reassign #23, #21, Renovate #16 for SCSE
Total CR	24		21	3					
RES	3	400	3						Reassign #24, 29, 37
AIS	2	400	2						Reuse #14, 25
ESL/WL	2	400	2			1,000			Renovate #16 & 17 for ESL and WL
SPEECH	2	400	2			385			Reassign #19 & Renovate 40 & 42 to Speech
OTPT	1	400	0	1	400				(1) New OTPT Room in Addition
TOTAL SGI	10		9	1					
TOTAL Instructional NET (SF)					2,950	4,937	0	1,973	

1. REDUCE CAFETORIUM SIZE
2. ENLARGE STAGE & STO
3. ENLARGE KITCHEN & STO
4. ADD COMMUNITY OFFICE
5. ADD FLEXIBLE SPACE
6. ADD SPACE FOR GUIDANCE AS REQ'D
7. ADD IT SPACE IF REQ'D



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

UPPER SCHOOL (3-5) - ES
02/16/2021
LITTLEBROOK - 1ST FLOOR DIAGRAM

PRINCETON SCHOOL DISTRICT
PS&S PROJECT #: 040190011

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LITTLEBROOK UPPER SCHOOL (3-5) ES ORDER OF MAGNITUDE COST

					Required		Optional		
SUMMARY TABLE					NEW SF	RENO SF	NEW SF	RENO SF	
TOTAL Instructional NET (SF)					2,950	4,937	-	1,973	
TOTAL Non-Instructional NET (SF)					-	-	1,808	7,300	
TOTAL NET (SF)					2,950	4,937	1,808	9,273	
GROSSING FACTOR					0.5				
TOTAL GROSS (SF)					1,475	2,469	904	4,637	
TOTAL GROSS (SF)					4,425	7,406	2,712	13,910	
DESCRIPTION ITEM					COST PER SQUARE FOOT				
%					\$ 400	\$ 285	\$ 400	\$ 285	
COST/SF					\$ 400	\$ 285	\$ 400	\$ 285	
BUILDING COSTS (SUBTOTAL)					\$ 1,770,000	\$ 2,110,568	\$ 1,084,800	\$ 3,964,208	
SITE & UTILITY COSTS (ALLOWANCE)					\$ 200,000	\$ 100,000	\$ 350,000	\$ 100,000	
SPECIAL CONDITIONS (ALLOWANCE for HAZ MAT, KIT EQUIP, STAGE RIG)					\$ 25,000	\$ 25,000	\$ 30,000	\$ 255,000	
DESIGN CONTINGENCY					5%	\$ 99,750	\$ 111,778	\$ 73,240	\$ 215,960
GENERAL CONDITIONS (O/P)					10%	\$ 209,475	\$ 234,735	\$ 153,804	\$ 453,517
ESCALATION (2 YEARS)					6%	\$ 138,254	\$ 154,925	\$ 101,511	\$ 299,321
CONTINGENCY					10%	\$ 244,248	\$ 273,701	\$ 179,335	\$ 528,801
SOFT COSTS					10%	\$ 268,673	\$ 301,071	\$ 197,269	\$ 581,681
FURNITURE & EQUIPMENT (ALLOWANCE)					1.5%	\$ 44,331	\$ 49,677	\$ 32,549	\$ 95,977
TOTAL COSTS BY CATEGORY						\$ 2,999,730	\$ 3,361,453	\$ 2,202,509	\$ 6,494,464
TOTAL COST (*)						\$15,058,156			
(*) EXCLUDES (MAINTENANCE WORK, GENERATOR, ETC...)									

ELEMENTARY SCHOOLS ORDER OF MAGNITUDE COST SUMMARY TABLE

COST SUMMARY TABLE						
LOCATION	SCHOOL TYPE	Required		Optional		EST. TOTAL COST
		NEW	RENO	NEW	RENO	
Johnson Park - (Lower School)	(PK-2)	\$ 2,413,317	\$ 1,714,319	\$ 3,774,096	\$ 2,263,920	\$ 10,165,653
Community Park - (Upper School)	(3-5)	\$ 1,060,055	\$ 1,366,847	\$ 4,195,111	\$ 3,122,392	\$ 9,744,405
Riverside - (Lower School)	(PK-2)	\$ 5,796,471	\$ 319,445	\$ 3,097,466	\$ 2,300,560	\$ 11,513,941
Littlebrook - (Upper School)	(3-5)	\$ 2,999,730	\$ 3,361,453	\$ 2,202,509	\$ 6,494,464	\$ 15,058,156
SUB-TOTALS		\$ 12,269,572	\$ 6,762,064	\$ 13,269,181	\$ 14,181,336	\$ 46,482,154
SUB-TOTAL BY CATEGORY		\$19,031,636		\$27,450,518		\$ 46,482,154

*Note – The cost to address deferred maintenance work is not included and should be evaluated prior to, or part of, pre-referendum.

SUMMARY TABLE ALL SCHOOLS ORDER OF MAGNITUDE COST

"ORDER OF MAGNITUDE COST" SUMMARY TABLE				
SCHOOL / LOCATION	ABBREVIATION	REQUIRED WORK	OPTIONAL WORK	ESTIMATED TOTALS
PRINCETON HIGH SCHOOL	PHS	\$24,584,310	\$0	\$24,584,310
PRINCETON UNITED MIDDLE SCHOOL	PUMS	\$20,142,736	\$1,289,358	\$21,432,094
JOHNSON PARK ES - (LOWER SCHOOL)	JP	\$4,127,636	\$6,038,017	\$10,165,653
COMMUNITY PARK ES - (UPPER SCHOOL)	CP	\$2,426,902	\$7,317,503	\$9,744,405
RIVERSIDE ES - (LOWER SCHOOL)	RS	\$6,115,916	\$5,398,025	\$11,513,941
LITTLEBROOK ES - (UPPER SCHOOL)	LB	\$6,361,183	\$8,696,973	\$15,058,156
TOTAL COST (*)		\$63,758,683	\$28,739,876	\$92,498,559

(*) - "ORDER OF MAGNITUDE COST ESTIMATE" EXCLUDES THE FOLLOWING WORK ITEMS:

- 1 - MAINTENANCE WORK ITEMS BY SCHOOL
- 2 - EMERGENCY GENERATORS BY SCHOOL IF REQUIRED
- 3 - RELOCATION OF THE TECHNOLOGY OFFICES FROM THE HS TO AN ALTERNATE LOCATION
- 4 - VALLEY ROAD RENOVATIONS AND ALTERATIONS

PART – 2

PRINCETON ELEMENTARY SCHOOLS

DISCUSSION & QUESTIONS

APPENDIX

SUPPORTING INFORMATION

PHS

PRINCETON - HIGH SCHOOL



INFORMATION

- Built +/- Early 1920's
 - Additions +/- 1970's & 2000's
 - Multi Level (5)
 - Site +/- 21.5 Acres
 - Parking +/-189
 - Footprint Size +/-169,239 sf
 - Building sf
 - Grd/Gym Lvl: 169,239 sf
 - 1st Flr: 98,200 sf
 - 2nd Flr: 76,105 sf
 - Total 343,544 sf (*)
- (*) Excludes Part. Basement and Referendum Work.

PRINCETON HS - CAPACITY



Ground & Gym Level

LEGEND

- GENERAL CLASSROOM
- SCIENCE
- TECH CLASSROOM
- SCSE
- RESOURCE
- ACAD SUPPORT
- SPECIALIZED INST / EXPL
- LARGE GROUP / NON-SCHEDULED
- ADMIN
- PE / HEALTH

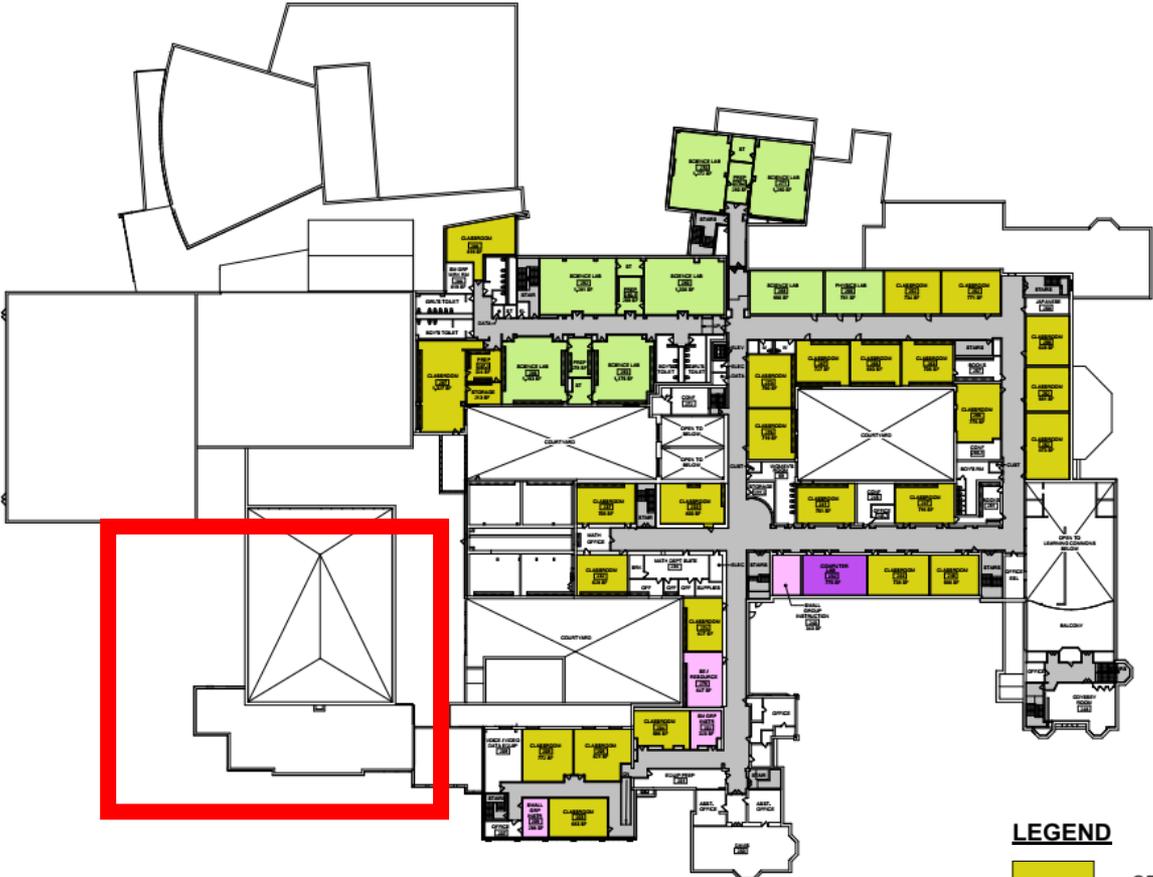
Red Box – Indicates Area of Referendum Work



First Floor Level

PRINCETON HS - CAPACITY

Second Floor Level



1 2ND FLOOR PLAN 7'-0" = 1"

Red Box –
Indicates Area of
Referendum
Work

LEGEND

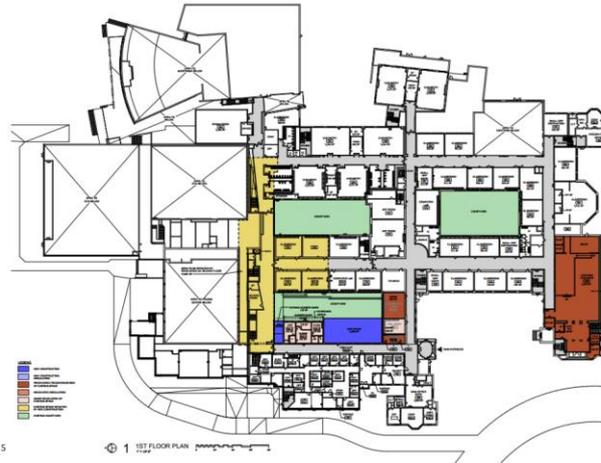
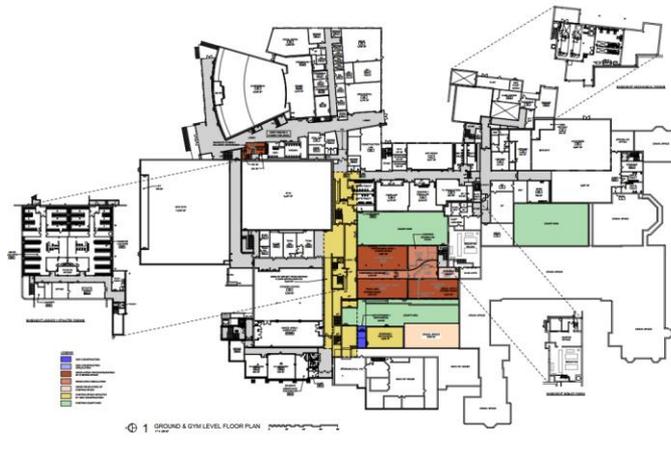
	GENERAL CLASSROOM		ACAD SUPPORT
	SCIENCE		SPECIALIZED INST / EXPL
	TECH CLASSROOM		LARGE GROUP / NON-SCHEDULED
	SCSE		ADMIN
	RESOURCE		PE / HEALTH

PRINCETON HS OPTION 1 (ELIMINATED)

PRINCETON HS – PROPOSED GROUND FLOOR

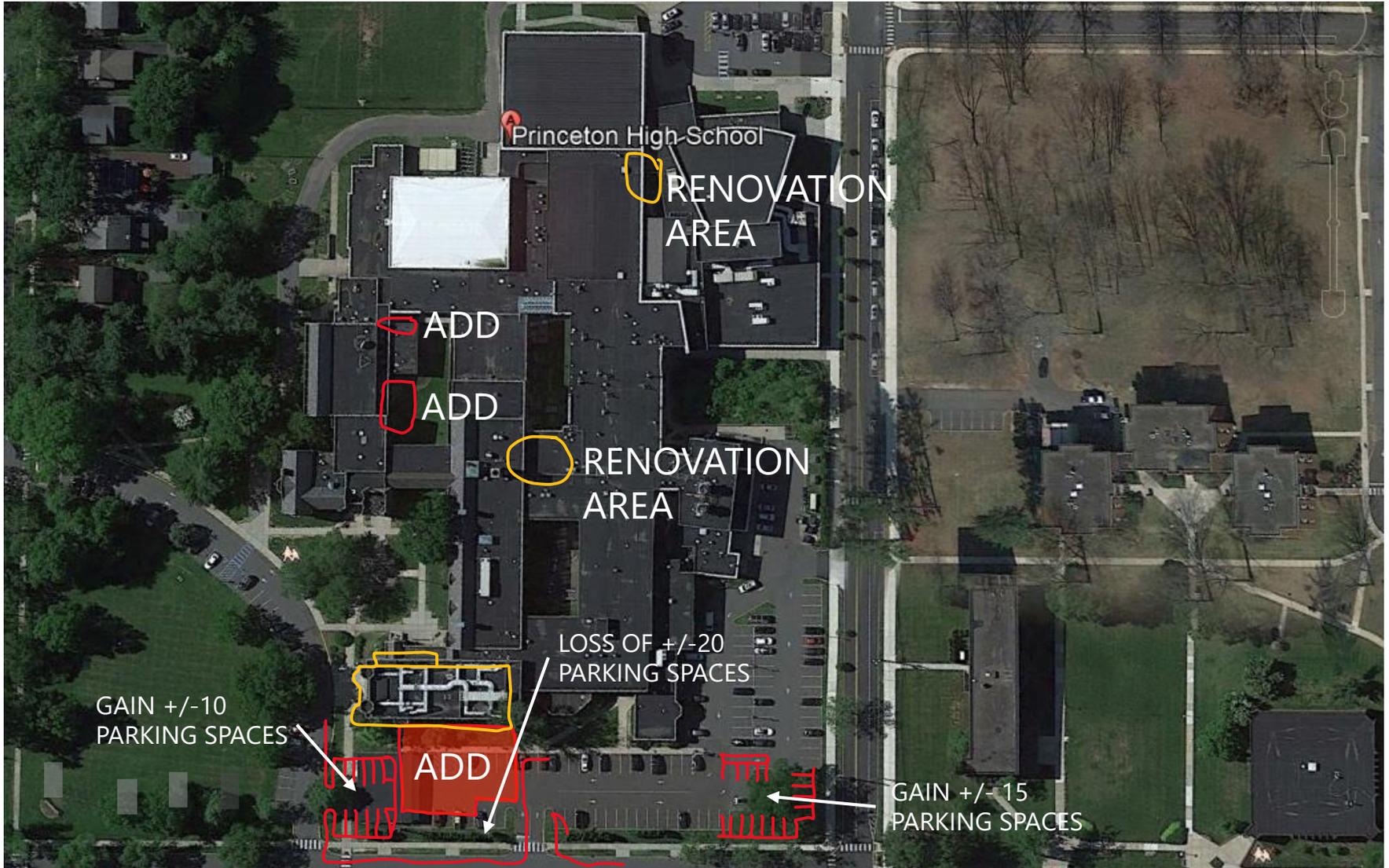
PRINCETON HS – PROPOSED 1ST FLOOR

PRINCETON HS – PROPOSED 2ND FLOOR



- Option 1 comprehensively addressed the space needs and operational deficiencies of the existing PHS building.
- However, implementing Option 1 would require disruption to operations, complex phasing, scope, scale and high overall cost, leading the WG to move towards a more practical solution (Option 2).

PRINCETON HIGH SCHOOL AERIAL

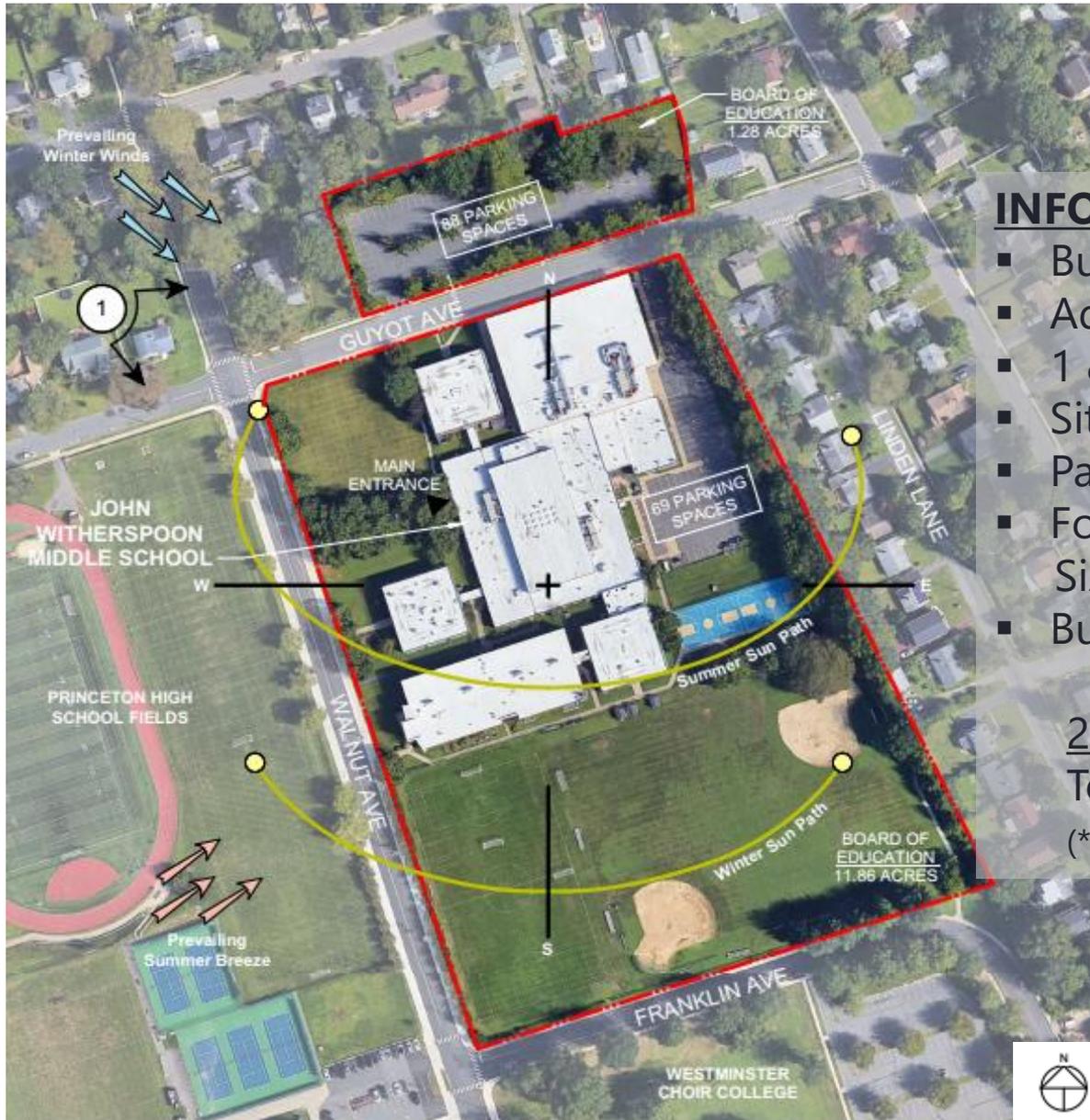


APPENDIX

SUPPORTING INFORMATION

PUMS

PUMS – AERIAL SITE PLAN



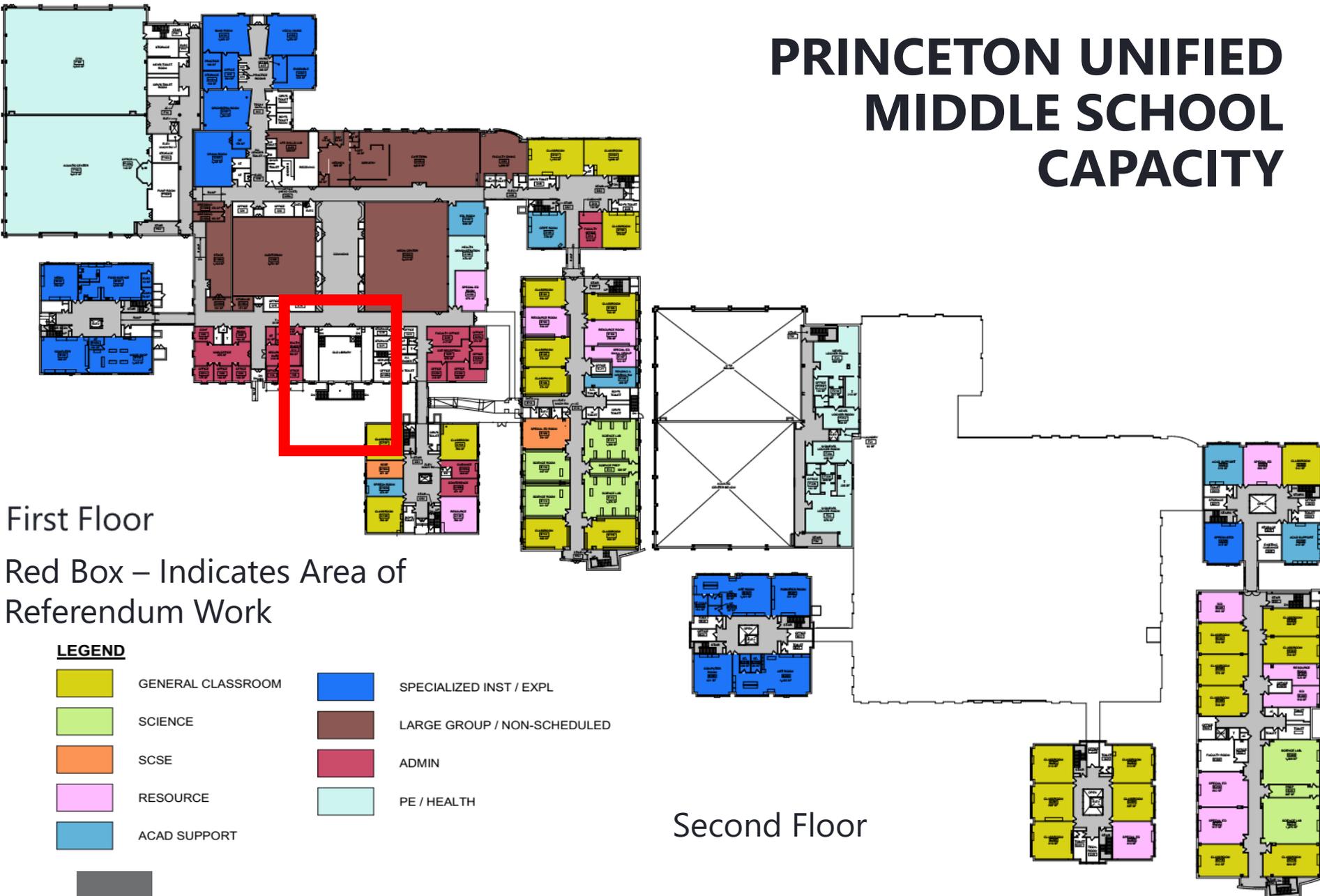
INFORMATION

- Built +/- 1960's
 - Additions +/- 2000's
 - 1 & 2 Story
 - Site +/- 13.14 Acres
 - Parking +/- 157
 - Footprint
Size +/- 119,673 sf
 - Building sf

1st Flr:	119,673 sf
2nd Flr:	49,980 sf
Total:	169,653 sf (*)
- (*) Excludes Part. Basement



PRINCETON UNIFIED MIDDLE SCHOOL CAPACITY



First Floor

Red Box – Indicates Area of
Referendum Work

LEGEND

- | | | | |
|--|-------------------|---|-----------------------------|
|  | GENERAL CLASSROOM |  | SPECIALIZED INST / EXPL |
|  | SCIENCE |  | LARGE GROUP / NON-SCHEDULED |
|  | SCSE |  | ADMIN |
|  | RESOURCE |  | PE / HEALTH |
|  | ACAD SUPPORT | | |

Second Floor

PUMS - CORE SPACE REVIEW

MIDDLE SCHOOL - CORE SPACE EVALUATION

School	Gym & Sto & Lk Rms (SF)		Cafeteria (SF)		Kitchen (SF)	Stage (SF)	Total Allowance (SF)
FES - Allowance	9,900		5,600		1,500	1,000	18,000
PUMS - Actual	13,090	(1)	4,023	(2)	1,009	1,299	19,418
Difference	3,190		(1,577)		(491)	299	1,418

(1) Gym Lk Rms are shared with Aquatic Center

(2) Cafe includes Servery approx. 769sf & Cafe excludes adjacent Faculty Dining 1,099sf

FES – NJDOE Facility Efficiency Standards

PUMS – AERIAL



Guyot Ave

Franklin Ave

Walnut Ave

ADD

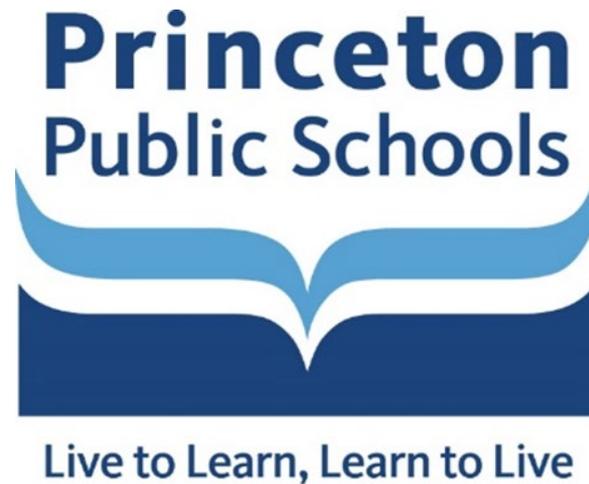
ADD

OUTDOOR
LEARNING

Optional
New Parking
(+/-36 spaces)

Princeton School Facilities Plan

Updated Enrollment Projections & Elementary Scenario Considerations
Working Group Meeting
November 19, 2020

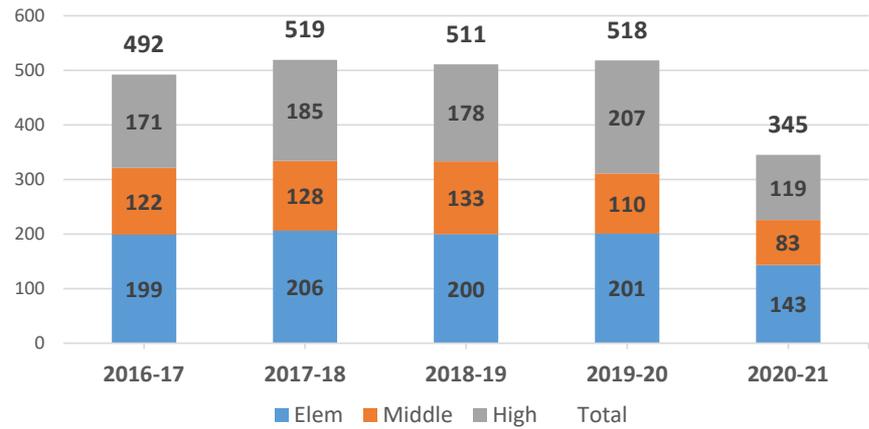


UPDATED ENROLLMENT PROJECTIONS

Impacts of COVID-19 on 2020-21 Enrollment

- Significant decrease in recently steady rates of in-migration
- Coupled with significant level of transfers out of the system – 62% more than the average “student churn” of the last three years
 - University disruption
 - PPS hybrid learning model

New to District Students
Grades 1-12 (Not Including Cranbury 9th Graders)



Transfers Out 2020-21

	Other Public Schools	Home-school	Out of State or Country	Private Schools	Charter School	TOTAL
Community Park	6	11	22	15		54
Johnson Park	5	3	17	6		31
Littlebrook	10	4	24	17	13	68
Riverside		7	28	10		45
Elementary Total	21	25	91	48	13	198
PUMS	17	5	33	11	5	71
PHS	2	6	44	27		79
District Total	40	36	168	86	18	546

Source: Princeton Public Schools

Enrollment History

School Year	Births 5-Years Previous	K	1	2	3	4	5	6	7	8	9	10	11	12	PK	K-12 Total	PK-12 Total	K-5 Total	6-8 Total	9-12 Total
2009-10	248	195	242	184	201	233	210	208	236	216	353	365	344	351	52	3,338	3,390	1,265	660	1,413
2010-11	228	197	205	248	165	217	238	221	213	238	354	366	358	344	40	3,364	3,404	1,270	672	1,422
2011-12	230	182	202	216	230	161	230	251	238	230	319	347	343	358	32	3,307	3,339	1,221	719	1,367
2012-13	251	191	184	198	209	240	177	231	265	242	375	368	353	347	60	3,380	3,440	1,199	738	1,443
2013-14	230	198	181	194	197	210	238	180	231	275	379	376	360	335	43	3,354	3,397	1,218	686	1,450
2014-15	241	208	211	212	197	199	237	247	208	253	404	379	375	353	53	3,483	3,536	1,264	708	1,511
2015-16	239	195	207	211	195	189	197	243	260	219	400	415	383	369	52	3,483	3,535	1,194	722	1,567
2016-17	180	215	220	223	207	222	195	224	257	281	358	411	421	381	56	3,615	3,671	1,282	762	1,571
2017-18	210	214	230	235	223	237	231	219	246	260	413	365	407	415	59	3,695	3,754	1,370	725	1,600
2018-19	174	198	230	231	223	242	247	261	231	264	387	428	349	409	56	3,700	3,756	1,371	756	1,573
2019-20	196	197	208	248	239	237	263	262	270	246	390	422	421	357	95	3,760	3,855	1,392	778	1,590
2020-21	200	148	193	201	236	237	243	270	259	283	349	388	418	437	91	3,662	3,753	1,258	812	1,592

- Significant decline in Kindergarten class – likely mix of delayed entry, private and home schooling
- Slightly down across most grades, but youngest grades especially

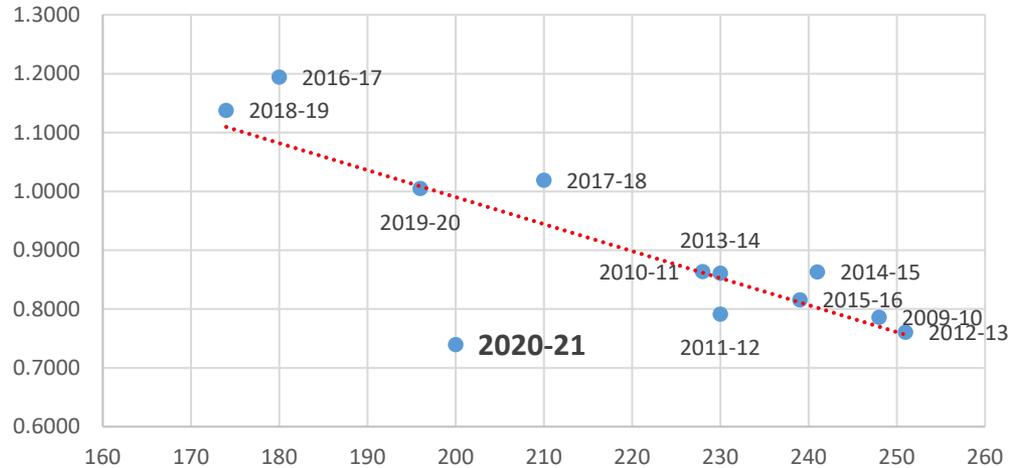
Persistency Ratios

2010-11 to 2020-21														
Year	B-K	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	Est. of Migration
2010-11	0.8640	1.0513	1.0248	0.8967	1.0796	1.0215	1.0524	1.0240	1.0085	1.6389	1.0368	0.9808	1.0000	1.7%
2011-12	0.7913	1.0254	1.0537	0.9274	0.9758	1.0599	1.0546	1.0769	1.0798	1.3403	0.9802	0.9372	1.0000	3.3%
2012-13	0.7610	1.0110	0.9802	0.9676	1.0435	1.0994	1.0043	1.0558	1.0168	1.6304	1.1536	1.0173	1.0117	2.2%
2013-14	0.8609	0.9476	1.0543	0.9949	1.0048	0.9917	1.0169	1.0000	1.0377	1.5661	1.0027	0.9783	0.9490	1.4%
2014-15	0.8631	1.0657	1.1713	1.0155	1.0102	1.1286	1.0378	1.1556	1.0952	1.4691	1.0000	0.9973	0.9806	8.5%
2015-16	0.8159	0.9952	1.0000	0.9198	0.9594	0.9899	1.0253	1.0526	1.0529	1.5810	1.0272	1.0106	0.9840	0.2%
2016-17	1.1944	1.1282	1.0773	0.9810	1.1385	1.0317	1.1371	1.0576	1.0808	1.6347	1.0275	1.0145	0.9948	7.1%
2017-18	1.0190	1.0698	1.0682	1.0000	1.1449	1.0405	1.1231	1.0982	1.0117	1.4698	1.0196	0.9903	0.9857	6.7%
2018-19	1.1379	1.0748	1.0043	0.9489	1.0852	1.0422	1.1299	1.0548	1.0732	1.4885	1.0363	0.9562	1.0049	4.8%
2019-20	1.0051	1.0505	1.0783	1.0346	1.0628	1.0868	1.0607	1.0345	1.0649	1.4773	1.0904	0.9836	1.0229	6.0%
2020-21	0.7400	0.9797	0.9663	0.9516	0.9916	1.0253	1.0266	0.9885	1.0481	1.4187	0.9949	0.9905	1.0380	0.1%
7-YR Avg	0.9679	1.0520	1.0522	0.9788	1.0561	1.0493	1.0772	1.0631	1.0610	1.5056	1.0280	0.9919	1.0016	
6-YR Avg	0.9854	1.0497	1.0324	0.9727	1.0637	1.0361	1.0838	1.0477	1.0553	1.5117	1.0327	0.9910	1.0051	
5-YR Avg	1.0193	1.0606	1.0389	0.9832	1.0846	1.0453	1.0955	1.0467	1.0557	1.4978	1.0337	0.9870	1.0093	
4-YR Avg	0.9755	1.0437	1.0293	0.9838	1.0711	1.0487	1.0851	1.0440	1.0495	1.4636	1.0353	0.9802	1.0129	
3-YR Avg	0.9610	1.0350	1.0163	0.9784	1.0465	1.0514	1.0724	1.0259	1.0621	1.4615	1.0405	0.9768	1.0219	

- Lowest in-migration rate of the last decade in 20-21
- Unusually low persistency ratios in early years
- COVID clearly had a direct impact on 2020-21 enrollment

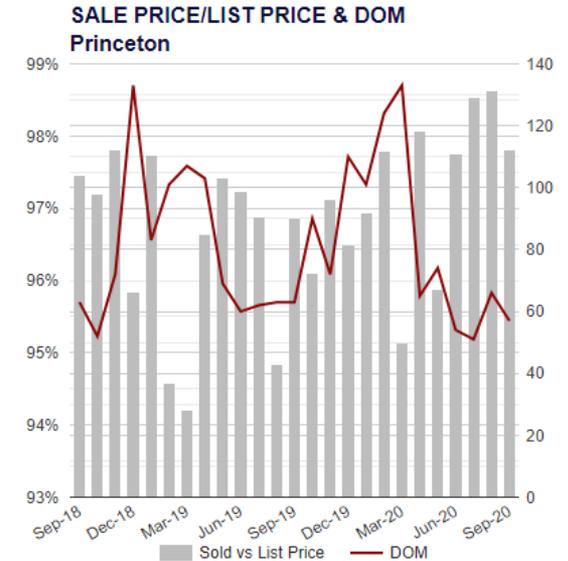
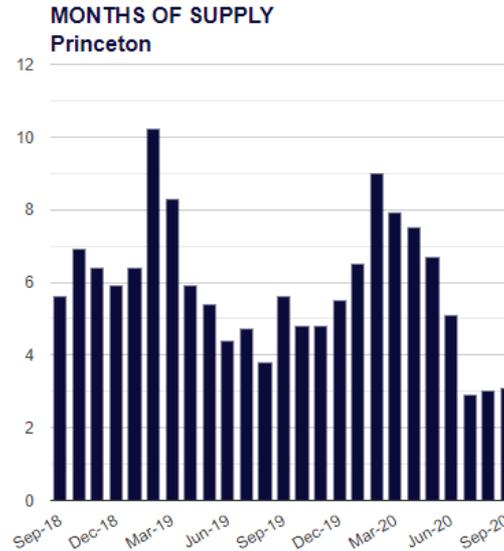
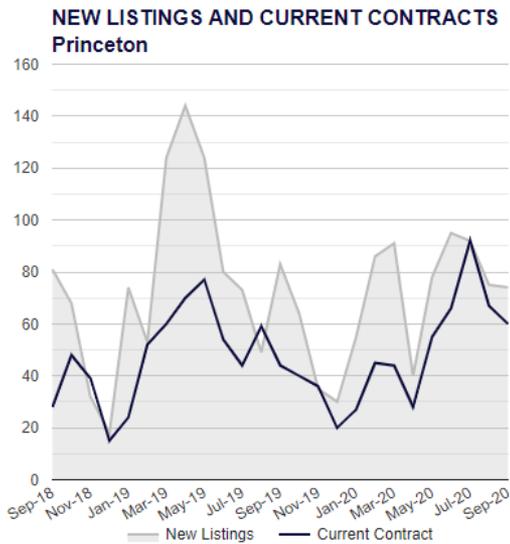
Birth to Kindergarten Ratio

Actual Births Compared to Associated Birth-K Ratio



- Reasonably reliable linear trend between births and Birth to K Ratio of five years later prior to 2020-21
- 2020-21 is an outlier
- According to trend, would have anticipated almost 90 more Kindergarteners this year
- Anticipate a return of some of these students next year (split between 1st grade and K), provided pandemic restrictions are lifted

Housing Market

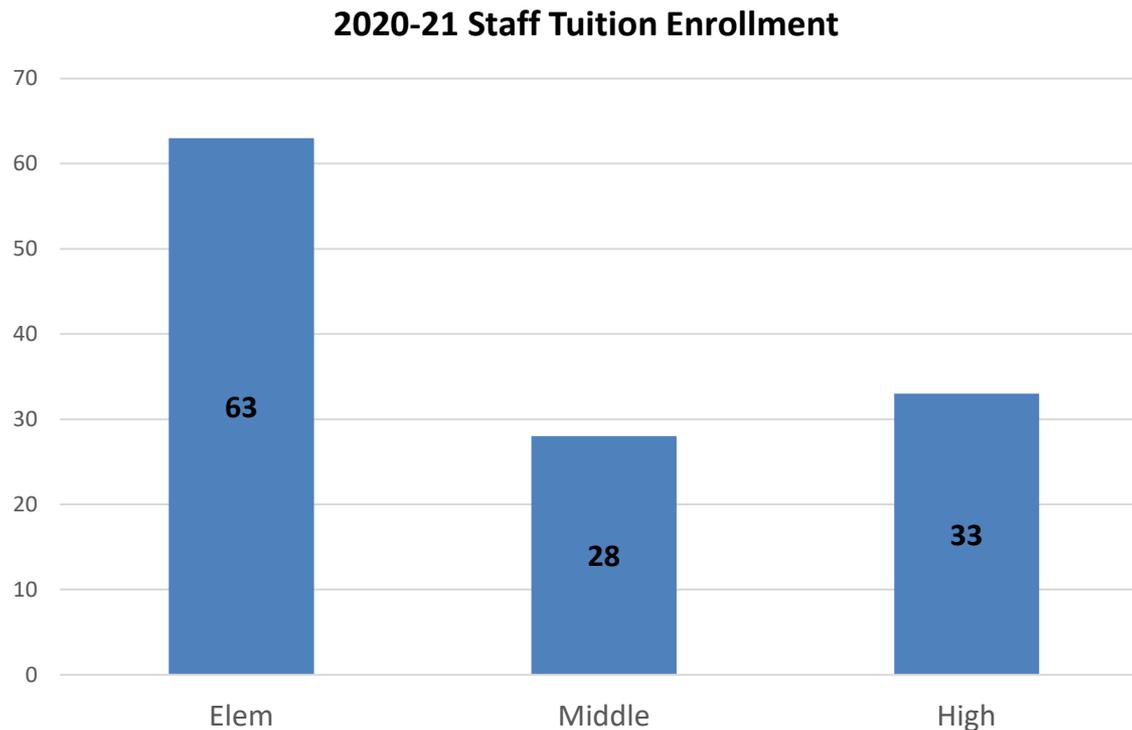


Source: The Long & Foster Market Minute – Princeton Housing Market, September 2020

- Indicators of a very strong residential market over the summer of 2020 – strong listings, low months of supply and days on market, and high sold to list price ratios
- **However, in-migration of students to PPS did not follow**
- Fair Share Housing agreement projects are reportedly by and large on track with development assumptions made in previous enrollment projections analysis

POLICY CHANGES

- Increasing tuition for students of new faculty and staff from \$3,200 per student to \$7,500 per student beginning July 1, 2021
- Anticipate slow attrition in the number of these tuitioned students, currently at 124 across the district



PROJECTIONS PRIMER

Cohort Survival Method

- Based on Cohort Survival Methodology - standard method for enrollment projections
- The Cohort Survival Methodology relies on **observed data from the recent past in order to predict the near future**
- Methodology works well for stable populations, including communities that are growing or declining at a steady rate
- Based on cohort “survival” as a grade matriculates
 - Survival rates account for the various external factors affecting enrollments, including housing characteristics, residential development, economic conditions, student transfers in and out of the system, and student mobility
- Changes in population, housing stock and tenure, and economic conditions help explain persistency ratios
- Changes in programming (e.g. dual language immersion program expansion) affect persistency ratios of individual schools

PROJECTIONS PRIMER

Models

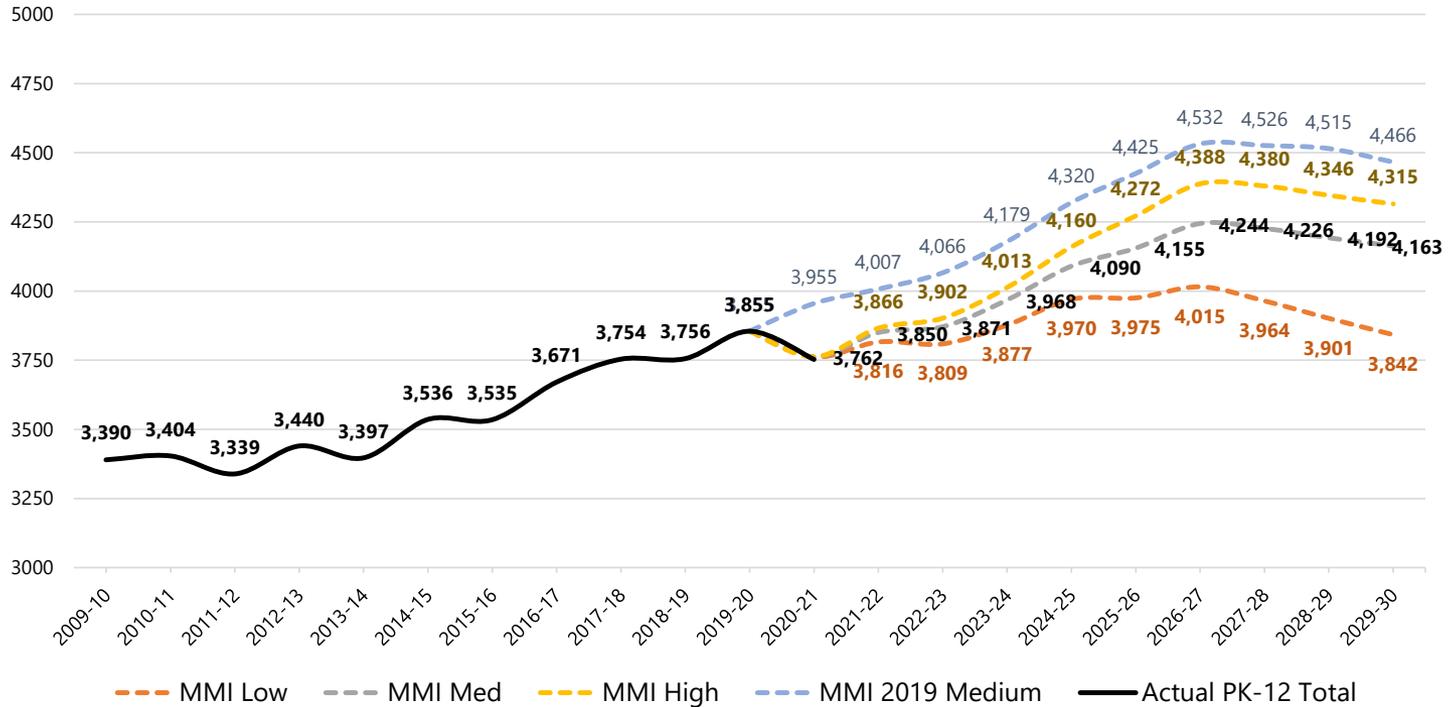
- Three projections models updated
 - Low model assumes lowest longer-term trends persist (6-year trend), low birth projections and 75% Fair Share Housing unit occupancy/ student generation by 2027
 - Medium model assumes more recent trends persist (5-year trend), medium birth projections and 90% of Fair Share Housing unit occupancy/ student generation by 2027
 - High model assumes highest of most recent trends persist (3-year trend), high birth projections and 100% Fair Share Housing unit occupancy/ student generation by 2027
- Student multipliers provided by Nassau Capital Advisors, based on Econsult Solutions, Inc. data, were phased into baseline projections

Assumptions

- That 80-90% of the “missing” Kindergarten cohort return next year 80% as 1st graders, and 20% as Kindergarteners
- PK increases to and remains at 100 students
- No changes to PPS programming or availability of private and other public school seats in region
- Phased construction of Fair Share Housing units through 2027 based on current property dispositions/ zoning and funding status

DISTRICTWIDE PROJECTIONS

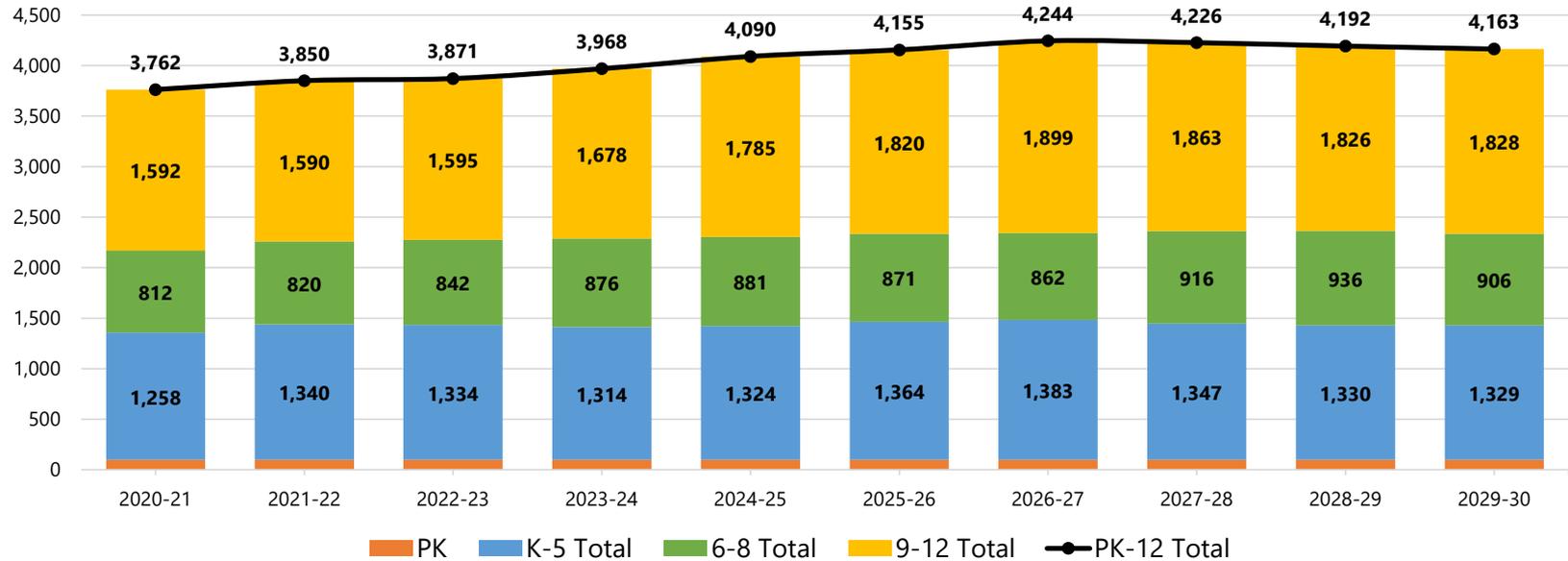
Princeton PK-12 Enrollment
Actual and Projected



- Lower than projected last year due to impacts of pandemic
- All models project overall growth in K-12 over the next five years, between 3 and 8%
- Medium and high models sustain early growth; whereas low model projects decline after 2026-27

DISTRICTWIDE PROJECTIONS

Princeton Public Projected PK-12 Enrollment
Medium Model



- Medium model best fits current data (assumes significant build out and occupancy of Fair Share Housing units)
- Projects 9% growth out four years with continued growth until 2026-17 before flattening off to a total of 11% increase out until 2029-30
- Most of that growth is felt in the middle and high school levels, due to some larger cohorts that have recently entered the system, and assumed resumption of in-migration

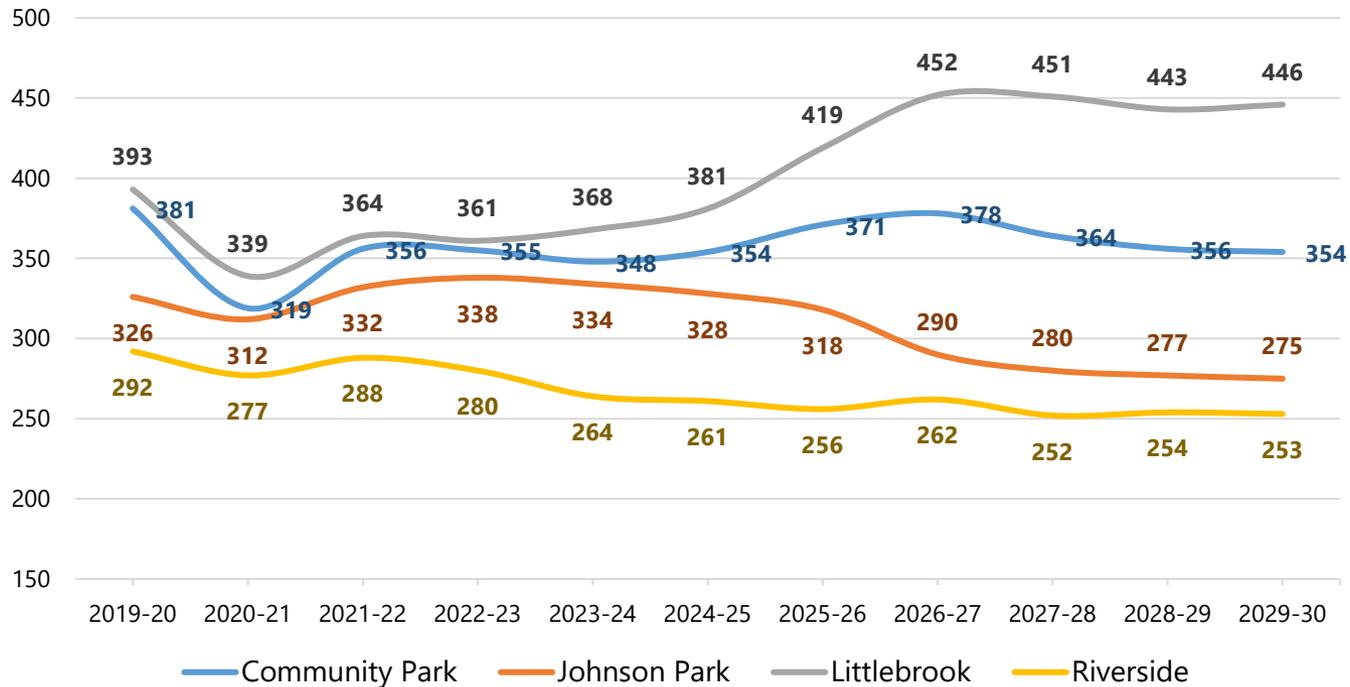
DETAILED DISTRICTWIDE MEDIUM PROJECTIONS

School Year	Births 5-Years Previous	K	1	2	3	4	5	6	7	8	9	10	11	12	PK	K-12 Total	PK-12 Total	K-5 Total	6-8 Total	9-12 Total
2019-20	196	197	208	248	239	237	263	262	270	246	390	422	421	357	95	3,760	3,855	1,392	778	1,590
2020-21	200	148	193	201	236	237	243	270	259	283	349	388	418	437	100	3,662	3,762	1,258	812	1,592
2021-22	201	220	217	201	198	256	248	265	280	275	419	370	379	422	100	3,750	3,850	1,340	820	1,590
2022-23	191	195	233	225	198	215	268	270	275	297	407	444	361	383	100	3,771	3,871	1,334	842	1,595
2023-24	177	184	211	246	225	219	229	296	284	296	442	434	435	367	100	3,868	3,968	1,314	876	1,678
2024-25	149	163	202	225	248	251	235	257	316	308	439	474	428	444	100	3,990	4,090	1,324	881	1,785
2025-26	183	203	178	214	227	275	267	262	272	337	450	469	466	435	100	4,055	4,155	1,364	871	1,820
2026-27	181	207	222	190	219	252	293	295	277	290	487	480	460	472	100	4,144	4,244	1,383	862	1,899
2027-28	178	205	220	231	190	237	264	317	307	292	412	518	470	463	100	4,126	4,226	1,347	916	1,863
2028-29	175	202	218	229	230	204	247	283	330	323	412	436	506	472	100	4,092	4,192	1,330	936	1,826
2029-30	172	201	216	226	227	246	213	264	295	347	458	436	426	508	100	4,063	4,163	1,329	906	1,828

Add PK-5 Total

ELEMENTARY (K-5) PROJECTIONS

Princeton Public Schools Projected K-5 Enrollment by School



- Due to the location of many Fair Share Housing units, Littlebrook projected to experience significant growth in the latter half of the projection horizon
- Assumes no changes to current attendance zones or current program offerings
- Does not account for 100 PK students