

T.C. WILLIAMS: KING STREET CAMPUS

3330 King Street Alexandria, VA 22302

Year Built: 2007	Current School Floor Area: 461,147 sq ft	Current Lot Size: 19.88 acres
Zoning: R20	Floor Area Permitted by Zoning: 547,000	Floor to Area Ratio: .51 per DSUP
Classroom Count: 169	Ed Spec Capacity @ 86% Efficiency: 2,928	Projected Utilization (2022): 125%
Space Adequacy:	Alignment:	Current Efficiency:
Exceeds Space Requirements: classrooms are greater than 110% of space requirements	38 classrooms - 23%	<p>ACPS Target Efficiency: 86% Generally this rate means rooms are used seven out of eight periods each day. See the "Schedule Efficiency" section for additional detail.</p> <p>A-Day Schedule Average: 77% The average efficiency for A-Day is based on the following class periods: 1, 3, 5, and 7.</p> <p>B-Day Schedule Average: 78% The average efficiency for B-Day is based on the following class periods: 1, 2, 4, and 6.</p>
Satisfactory: classrooms are between 90% to 110% of space requirements outlined in the Ed Spec	20 classrooms - 12%	
Borderline: classrooms are between 80% to 89% of space requirements	75 classrooms - 44%	
Inadequate: classrooms are between 70% to 79% of space requirements	10 classrooms - 6%	
Very Inadequate: classrooms are within less than 69% of space requirements	26 classrooms - 15%	

Student Counts:

	FY 2017 Enrollment	FY 2022 Projected
Student Count	2943	3654
Capacity	2928	2928
Utilization Rate (Student Count / Capacity)	101%	125%

Utilization Rate Categories:

Enrollment as % of Capacity	Definition
< 89	Underutilized
90 - 110%	Ideally Utilized
> 111 %	Over Capacity

BACKGROUND

T.C. Williams, Alexandria's only public high school, is a comprehensive high school comprised of two campuses: the Minnie Howard Campus and the King Street Campus. In September 2016, T.C. Williams High School had a total enrollment of 3,754 students across both campuses.

The Minnie Howard Campus serves grade 9, and the King Street Campus serves grades 10 – 12 and grade 9 students who participate in the International Academy program. Some 9th grade students from Minnie Howard travel to the King Street Campus during school hours on ACPS provided buses to attend specific class offerings, often in the afternoon.

The King Street Campus was built in 1965 and modernized in 2007 with a new facility at its present site. The modernized building is a state-of-the-art facility that provides smaller learning communities, as well as flexible academic space capable of meeting the evolving secondary school curriculum requirements. In fall 2008, the second phase of the campus modernization project was completed and included an artificial turf sports field, renovated stadium, new athletic track, new playing field, new bus driveway, and a two-story parking garage. The project received a LEED Gold rating.

ACADEMIC PROGRAM

The academic program at T.C. Williams High School includes 188 courses in reading, language arts, mathematics, social studies, and science, as well as fine arts, performing arts, physical education, and health. The school also offers the following special academic programs:

- Academy of Finance
- Advanced Placement/Honors/Dual Enrollment
- AVID
- International Academy
- Special Education/Inclusion Program
- STEM Academy
- Career and Technical Programs

The King Street and Minnie Howard campuses operate as one high school. The King Street campus serves all 10th-12th grade students and all 9th-12th grade students enrolled in the International Academy. The King Street campus serves 9th grade students from the Minnie Howard campus in instances where a course is not offered at the Minnie Howard campus. Over one-third of the Minnie Howard enrollment in 2016-2017 school year took one or multiple courses at the King Street campus, at some point during the day, typically during the afternoon. These students are provided transportation from the Minnie Howard campus to the King Street campus.

ENROLLMENT AND UTILIZATION

The King Street Campus had a September 2016 enrollment of 2,943 students. The calculated capacity of the King Street Campus is 2,928 students based on an 86% efficiency rate, yielding a utilization rate (enrollment vs. capacity) of 101% in September 2016. Enrollment projections indicate the King Street Campus school population will increase to 3,654 by the year 2022, resulting in a utilization of 125% at the King Street Campus, which equates to a gap of 726 seats if seeking 100% utilization. ACPS considers ideal utilization as a range of 90% to 110%.

KEY FINDINGS

SUMMARY

The design of the King Street Campus was informed by older standards. ACPS has since developed Educational Specifications (Ed Specs) which were approved by the School Board in January 2017 and are reflective of current program and practices and represent ACPS's ideal 21st century high school.

Only 35% of classrooms meet or exceed the 2017 board approved educational adequacy benchmarks. The remaining 65% of classrooms are smaller than the prescribed minimum size requirements set in the Ed Specs. Additionally, based on the 2016-17 course schedule, the current use of classrooms averages below the ACPS benchmark efficiency rate of 86%.

EDUCATIONAL ADEQUACY

Educational adequacy is the measure of existing educational spaces in comparison to ACPS's desired space requirements and standards set forth in the 2017 School Board-approved high school Ed Specs. The educational adequacy assessment of the school also helps to calculate the capacity of the school.

Based upon the data collected, only 35% of classrooms at the King Street Campus meet or exceed the educational adequacy benchmarks for an ideal 21st century high school. Spaces that are non-conforming to the Ed Specs impact the potential capacity of the school and utilization of space.

Of 169 total teaching spaces, only 20 spaces fall within 10% of the space requirements set forth in the Ed Specs. Despite having more room, larger spaces can only hold up to the maximize class size; therefore the 38 spaces that exceed the size requirement hold the same number of students as a standard Ed Specs classroom, as Board policy caps the class size per teacher. The remaining 111 classrooms are undersized. Per the Ed Specs, spaces that are smaller by more than 10% of the standard classroom space should hold fewer students.

SCHEDULE EFFICIENCY

Schedule efficiency examines how classroom spaces are used throughout the school day. ACPS's Ed Specs strive for an 86% efficiency rate on a regular basis. Generally this rate means rooms are used seven out of eight periods a day and teachers utilize an alternative space such as a teacher collaboration suite for their planning period.

Analysis of course scheduling and room use based on the 2016-2017 schedule reveals that T.C. Williams' instructional spaces are used slightly less than the desired rate, as shown in the Current Efficiency box. Classroom efficiency is specific to each day's schedule and can vary annually. For the purposes of this analysis, only blocks 1 through 7 were considered, as these are the core academic blocks of the school day. T.C. Williams employs a Red/Blue block schedule, which impacts the instruction within a classroom each day. A classroom may be utilized for four periods during Red Day and only three periods during Blue Day, depending on the scheduling need. Specialty classrooms, such as for culinary courses, impact the efficiency as they may not be needed for every block. The day-to-day utilization of a classroom impacts the average schedule efficiency for that day. The average efficiency of classrooms at the King Street Campus during a Red Day schedule is 77% while the average efficiency during a Blue Day schedule is 78% based on the 2016-2017 schedule. Opportunities to improve schedule efficiency should be explored.

T.C. WILLIAMS: MINNIE HOWARD CAMPUS

3801 West Braddock Road, Alexandria, VA 22302

Year Built: 1954	Current School Floor Area: 130,435 sq ft	Floor Area Permitted by Zoning 146,623 sq ft
Zoning: R12 (031.02-02-05) POS	Lot Size (acres): 6.6 5.4 For fields adjacent to the school	Floor to Area Ratio: 0.51 Not Applicable for POS
Classroom Count: 47	Ed Spec Capacity @ 86% Efficiency: 859	Projected Utilization (2022): 122%
Space Adequacy: Exceeds Space Requirements: classrooms are greater than 110% of space requirements 1 classroom - 2%	Alignment: Satisfactory: classrooms are within 10% +/- of the Ed Spec space requirements 7 classrooms - 15%	Current Efficiency: ACPS Target Efficiency: 86% Generally this rate means rooms are used seven out of eight periods each day. See the "Schedule Efficiency" section for additional detail. A-Day Schedule Average: 70% The average efficiency for A-Day is based on the following class periods: 1, 3, 5, and 7. B-Day Schedule Average: 66% The average efficiency for B-Day is based on the following class periods: 1, 2, 4, and 6.
Borderline: classrooms are between 80% to 89% of space requirements 5 classrooms - 11%	Inadequate: classrooms are between 70% to 79% of space requirements 23 classrooms - 49%	
Very Inadequate: classrooms are within less than 69% of space requirements 11 classrooms - 23%		

Student Counts:

	FY 2017 Enrollment	FY 2022 Projected
Student Count	811	1044
Capacity	859	859
Utilization Rate (Student Count / Capacity)	94%	122%

Utilization Rate Categories:

Enrollment as % of Capacity	Definition
< 89	Underutilized
90 - 110%	Ideally Utilized
> 111 %	Over Capacity

BACKGROUND

T.C. Williams, Alexandria's only public high school, is a comprehensive high school comprised of two campuses: the Minnie Howard Campus and the King Street Campus. In September 2016, T.C. Williams High School had a

total enrollment of 3,754 students across both campuses. The Minnie Howard Campus serves grade 9 and the King Street Campus serves grades 10 – 12. A portion of 9th grade students travel to the King Street Campus during school hours on ACPS provided buses to attend specific class offerings.

The Minnie Howard School building was originally constructed in 1954 as an elementary school. There was a major classroom and gymnasium addition in 1969 when it was converted to a middle school. The facility served as the central administrative offices from 1981 to 1993, when it was again renovated and became the 9th grade center. ACPS has had several plans to modernize the campus in recent CIPs and is currently looking to assess the feasibility of the site for a new high school building.

ACADEMIC PROGRAM

The academic program at T.C. Williams High School includes 188 courses in reading, language arts, mathematics, social studies, and science, as well as fine arts, performing arts, physical education, and health. The school also offers the following special academic programs:

- Academy of Finance
- Advanced Placement/Honors
- AVID
- English Learners
- Special Education/Inclusion Program
- STEM Academy
- Career and Technical Programs

The Minnie Howard campus serves all 9th grade students except for those enrolled in the International Academy. The Minnie Howard campus does not provide all of the advanced courses 9th grade students may be eligible to take. Over one-third of the Minnie Howard enrollment in 2016-2017 school year attended the King Street campus for courses not offered at Minnie Howard at some point during the day, typically during the afternoon. These students are provided transportation from the Minnie Howard campus to the King Street campus.

ENROLLMENT AND UTILIZATION

The Minnie Howard Campus had a September 2016 enrollment of 811 students. The estimated capacity of the Campus is 859, yielding a utilization rate (enrollment vs. capacity) of 94%. Enrollment projections indicate the Minnie Howard school population will increase to 1,044 students by the year 2022, resulting in a utilization of 122%, which equates to a gap of 185 seats if seeking 100% utilization. ACPS considers ideal utilization as a range of 90 to 110%.

KEY FINDINGS

EDUCATIONAL ADEQUACY

Educational adequacy is the measure of existing educational spaces in comparison to ACPS's desired space

requirements and standards set forth in the 2017 School Board-approved high school Ed Specs. The educational adequacy assessment of the school helps to calculate its capacity, and is specific to square footage measurements.

Only 17% of classrooms meet or exceed the 2017 board approved educational adequacy benchmarks. The remaining 83% of classrooms are smaller than the sizes identified as adequate in the Ed Specs. Additionally, based on the 2016-2017 course schedule, the current use of classrooms averages below the ACPS benchmark efficiency rate of 86%.

SCHEDULE EFFICIENCY

Schedule efficiency examines how spaces are used throughout the school day. ACPS's Ed Specs strive for an 86% efficiency rate of classroom use on a regular basis. Generally this rate means teachers use their assigned rooms seven out of eight periods a day and utilize an alternative space, such as a teacher collaboration suite for their planning period.

Analysis of the 2016-2017 course scheduling and room use reveals that T.C. Williams: Minnie Howard Campus' instructional spaces are used less than the desired rate, as shown in the Current Efficiency box. As is the case with the King Street campus, classroom efficiency is specific to each day's schedule and can vary annually. For the purposes of this analysis, only blocks 1 through 7 were considered, as these are the core academic blocks of the school day. T.C. Williams employs a Red/Blue block schedule, which impacts the instruction within a classroom each day. A classroom may be utilized for four periods during Red Day and only three periods during Blue Day, depending on the scheduling need. Specialty classrooms impact the efficiency as they may not be needed for every block. The day-to-day utilization of a classroom impacts the average schedule efficiency for that day. The average efficiency of classrooms at the King Street Campus during a Red Day schedule is 70% while the average efficiency during a Blue Day schedule is 66%, based on the 2016-2017 course schedule. Opportunities to improve schedule efficiency should be explored.

RECOMMENDATIONS

The capacity of T.C. Williams High School's two campuses cannot meet the projected growth in enrollment, nor do the majority of classrooms meet the minimum recommended size requirements per the Ed Specs. Options to provide additional student capacity at one or both campuses or a new site should be explored. Work group members and stakeholders emphasized their desire that short-term recommendations, often identified as an early priority, do not become long-term recommendations for the Division. Rather, short-term recommendations should serve a specific purpose for a given timeframe. Based on the analysis of the data collected and meetings with the work group and stakeholders, the following recommendations for the King Street and Minnie Howard Campuses are provided.

These recommendations are meant to serve as a guideline for future proposed Capital Improvement Program projects and should be re-evaluated based on need and feasibility at the time of implementation. Recommendations were made to align with City Strategic plan goals and ACPS 2020 Strategic Plan goals and should be implemented in alignment with these goals.

GROUP 1 — REQUIRED PLANNING

- Conduct further analysis of the master schedule and use of space at both campuses to explore ways to maximize existing space. The analysis should include studying how to increase the number of teacher collaboration suites and/or reconfiguring existing space to improve the enrollment capacity.
- Study the potential outcomes of a shifted schedule (e.g. multiple tracks of students with alternating start and end times).
- Study the possibility of transporting 10 – 12 grade students to the Minnie Howard Campus for classes to relieve capacity constraints at T.C. Williams.
- Conduct analysis to determine if either site can accommodate additional square footage to support more students. This analysis should include the impacts to shared and core spaces such as dining.
- Conduct an analysis of adjusting grade-level pairings throughout the Division (i.e., K-6, 7-9, 10-12).
- Study the combined use of both campuses. Determine how specialty classrooms can be efficiently used across both.
- Study/evaluate options for building additional capacity.
- New high school graduation requirements within the Commonwealth of Virginia are currently in development, known as the "Profile of a Virginia Graduate." The profile is the framework for the Virginia Board of Education's revision of graduation requirements, which will go into effect for freshmen entering high school in the fall of the 2018-19 (the graduating class of 2022). The requirements will likely affect the number of required program and support spaces, as well as the types of spaces needed for high school programs. Once the requirements are approved, the division should conduct an analysis of high school spaces to ensure instructional spaces are in alignment with the new high school program requirements.

GROUP 2 — SHORT TERM RECOMMENDATIONS

- Continue and expand partnerships with local entities, such as NOVA Community College, to increase off-campus learning opportunities.
- Determine how much capacity can be provided at off-campus locations to inform future utilization of T.C. Williams.
- Ensure that future programs and priorities for the Minnie Howard Campus are in alignment with the site's capacity analysis.
- If applicable, adjust the master schedule based on analysis.
- In order to maximize capacity at both campuses, explore how students can travel between the two without significantly adding to the Division's transportation costs or local traffic levels.
- Utilize relocatables to accommodate more students as enrollment increases.

GROUP 3 — INTERMEDIATE RECOMMENDATIONS

- If applicable, reassign grade-level pairings throughout the division based on analysis and ACPS priorities.
- Build additional capacity for T.C. Williams High School at the King Street Campus, at the Minnie Howard Campus, and/or at another location within the City.

GROUP 4 — LONG TERM RECOMMENDATIONS

EARLY CHILDHOOD EDUCATION (PRE-K)

BACKGROUND

ACPS Early Childhood Programs consist of three components: Virginia Preschool Initiative (VPI), Preschoolers Learning Together (PLT), and Early Childhood Special Education (ECSE). ACPS also has partnerships with local early care providers such as the Campagna Center, which provides Head Start and other programs. Some of these programs occur within ACPS schools and partner locations.

VPI is provided by a State grant and local funding. The purpose of VPI is to provide quality early childhood programs for children, whom the State of Virginia defines as “at-risk four-year olds.” VPI is a program designed for families who might not otherwise be able to access quality early childhood education opportunities.

PLT is a half-day preschool program offered to eligible children ages two years and six months thru four years (by September 30). This is an opportunity for developing children from the Alexandria community to be integrated into an early childhood special education (ECSE) classroom for the purpose of providing typical role models to students with disabilities.

ECSE provides special education services to students between the ages of two to five who are identified as having a developmental delay or disability.

Head Start is provided by a federal grant and local funding through partners. Head Start, similar to VPI, provides quality early childhood education for students who meet certain socioeconomic criteria.

The City of Alexandria has an Early Care and Education Workgroup (ECEW), which is a cross-sector workgroup made up of leaders from across ACPS, city agencies, partners, and the non-profit community. The group was convened to explore how Alexandria can build an early care and early childhood education system that is high quality, culturally and financially accessible, and comprehensive (including health, education, socio-emotional, family, and community support).

School	Table 1: 2016-2017 Pre-K in ACPS Elementary Schools				
	ACPS Enrollment	HeadStart/ Partner Enrollment	Total Enrollment	Ed Spec Pre-K Capacity	Ed Spec Pre-K Utilization
Charles Barrett	21	0	21	22	95%
Cora Kelly	3	36	39	45	88%
Jefferson - Houston	49	78	127	116	109%
John Adams	123	92	197	144	137%
Patrick Henry	96	60	156	124	126%
William Ramsay	32	0	32	29	110%
George Washington	0	41	41	45	91%
T.C. Williams	0	24	24	40	60%
Total	324	331	637	565	113%

As shown in Table 1, ACPS currently offers early childhood education spaces in six elementary schools, one of the middle schools and at the high school. The location of programs has been informed by available capacity. Please note that all enrollment numbers included in Table 1 are for school year 2016 - 2017.

Historically, division-wide pre-K student forecasts have not been calculated as part of student projections since ACPS is limited in the amount of space that can be offered. ACPS currently provides as much space as possible throughout the City for current programs.

The State of Virginia uses a formula to project the number of disadvantaged four-year olds, which determines the amount of VPI slots to fund for a given municipality. The formula multiplies total kindergarten enrollment by the division-wide free lunch percentage and subtracts the number of slots provided through Head Start. Using the State’s formula, ACPS estimates there are 746 disadvantaged four-year olds in the City of Alexandria. In 2017, there were 569 pre-school slots provided through VPI and Head Start, leaving a deficit of 177. Projections indicate the disadvantaged four-year old population will

increase to 790 by 2022, leaving a deficit of 209 if no additional slots are provided.

VISION FOR EARLY CHILDHOOD PROGRAMS

The City of Alexandria is committed to making pre-K accessible to all families with pre-K age students and understands that this will require ACPS and partner support. The LREFP work group sought to explore the best ways to provide the maximum amount of pre-K spaces throughout the division. Programs could be provided within existing elementary schools, at new centers, or a combination of both.

ACPS Ed Specs provide guidelines for classroom design. The standard for a pre-K room is the same for a kindergarten classroom due to the similar emphasis on play and programmatic needs in the two grade levels. The similar classroom configuration also allows for flexibility year-to-year as student enrollment and program needs change. At schools that house Head Start, classes can be held in standard pre-K or kindergarten classrooms, provided the classroom meets the licensing criteria.

ACPS developed Ed Specs for a pre-K center as part of the LREFP. The Ed Specs outline space recommendations for a pre-K classroom, and are used to evaluate current capacity within existing pre-K classrooms already being used by ACPS. There are other partners who provide pre-K throughout the City and utilize their own private facilities.

PRE-K WITHIN EXISTING ELEMENTARY SCHOOLS

Currently, ACPS elementary schools have limited capacity within existing, permanent classrooms to accommodate larger enrollments, whether pre-K or kindergarten, through grade five. For the current school year, no elementary school is being utilized at less than 90%, and nine are above 100% utilization. ACPS considers ideal utilization as a range of 90% to 110%. Elementary student enrollment is projected to grow over the next ten years by about 800 students, further constraining the use of existing classroom space for early childhood education without expansions or a new school. As additional elementary capacity is added and as enrollments are updated based on boundary changes, ACPS should explore additional opportunities to provide pre-K spaces within existing elementary schools.

FUTURE PRE-K SPACE

In addition to pre-K spaces within existing elementary schools, ACPS and its partners also desire to explore

additional space for pre-K through centers, increased school capacity or space available in the community. Anticipated outcomes of additional centers as a model to increase services offered to families and create equity between programs will need to be explored if a pre-K center is proposed in the future. The center currently being pursued at John Adams elementary school could serve as a good example for future decision-making.

ACPS developed Ed Specs with partner input to outline space recommendations for a potential future center; however, these specifications can be used as a reference for ACPS and its partners to develop adequate pre-K spaces in other facilities.

Any solution should promote joint professional development and collaboration of staff employed by ACPS and the Campagna Center (Head Start) and support the Early Care in Education Workgroup's mission of seamless points of entry for parents seeking services. Solutions should also promote joint program development and delivery within VPI, ECSE, and Head Start, while maintaining critical funding streams and other policy requirements needed for state and federal funding.

RECOMMENDATIONS

The capacity of pre-K spaces throughout Alexandria cannot serve the current or projected population of disadvantaged four-year olds. This reality is supported by the waitlists reported by partners. Because of this, access should be expanded to serve all families within the City. These recommendations are specific to pre-K within ACPS facilities. Options to provide additional pre-K capacity at individual sites and/or a new pre-K center should be explored to meet this vision. Work group members and stakeholders emphasized their desire that short-term recommendations do not become long-term solutions for the division. Rather, short-term recommendations should serve a specific purpose for a given timeframe. Based on the analysis of the data collected and meetings with the work group and stakeholders, the following considerations for early childhood spaces are recommended.

These recommendations are meant to serve as a guideline for future proposed Capital Improvement Program projects and should be re-evaluated based on need and feasibility at the time of implementation. Recommendations were made to align with City Strategic plan goals and ACPS 2020 Strategic Plan goals and should be implemented in alignment with these goals.

GROUP 1 — REQUIRED PLANNING

- Analyze the impact of new elementary schools, capacity projects, and redistricting for providing capacity at elementary schools, develop a potential distribution plan for early childhood classrooms.
- Study the available capacity within City-owned buildings for space conversion and potential co-location. If capacity exists, analyze whether spaces can be converted to meet Ed Spec standards.
- Study the availability of privately-owned buildings/institutions for space conversion and potential co-location. If capacity exists, analyze whether spaces can be converted to meet Ed Spec standards.
- Evaluate implementation of co-located pre-K center to be open in 2018 to determine if additional centers would be beneficial.
- Study the possibility of co-location on City-owned sites. Perform feasibility analysis to see if build out can occur to provide space.
- Analyze the potential for/impact of providing density increases to developers who accommodate additional building capacity within new developments. Determine if land use solutions (i.e.: parking incentives, increased density, etc.) can provide additional pre-K capacity.

GROUP 2 — SHORT TERM RECOMMENDATIONS

- Calculate pre-K projections annually
- Maintain and expand, where possible, current pre-K capacity at existing elementary schools strategically located in areas of highest need.
- Expand pre-K capacity with private partners.
- Determine the amount of additional capacity that private partners can provide.
- Promote multi-story and urban school models to optimize real estate and provide maximum pre-K spaces within elementary schools.
- Identify and analyze potential land acquisition, co-location, or leasing opportunities for pre-K .

GROUP 3 — INTERMEDIATE RECOMMENDATIONS

- Analyze the feasibility of previously identified sites for additional pre-K capacity that aligns with the Board-approved Ed Specs.
- Explore feasibility of additional pre-K centers as a model based on the School Board-approved Ed Specs and after review and analysis of the initial co-located pre-K center.

GROUP 4 — LONG TERM RECOMMENDATIONS

- Configure spaces within existing elementary schools to meet Ed Specs for early childhood and/or incorporate into design for future capital projects.