



FAYETTE COUNTY PUBLIC SCHOOLS

December 4, 2014

Mr. Hiren Desai, Associate Commissioner  
Administration & Support  
Kentucky Department of Education  
Capital Plaza Tower  
500 Mero Street  
Frankfort, KY 40601

**Re: FAYETTE COUNTY – Proposed New High School at 1970 Winchester Road**

Dear Mr. Desai:

We are writing in response to your letter of October 13, 2014, related to the Design Development submittal for the new high school project. We would like to clarify several points about the area of the building as designed and inform you of actions taken in the interest of the project.

Your letter states that the 702 KAR 4:180 Model Space Program extrapolated for an 1800-student high school shall be 272,160 SF maximum. You also correctly state that the Design Development submittal for the new FCPS high school includes a building area of 285,790 SF, a difference of 13,630 SF. But, the 4:180 Model does not include an auxiliary gym, while the new FCPS high school contains a 9,860 SF practice gym. This fact was communicated to KDE by the architect early in the review process, in written responses dated September 12 and in a review meeting on September 19. By removing the auxiliary gym and its 9,860 SF contribution from the argument, the proposed building has a total area of 275,930 SF, or 3,725 SF less than the Bryan Station High School building which was approved by KDE in 2004. That 3,725 SF represents an overage of 1.4%.

To share some perspective on the reasons for our variance from the regulation, district leadership envisions that the instructional program for this high school requires a 21<sup>st</sup> Century facility designed with flexible and collaborative spaces, and organized into interdisciplinary 'smaller learning communities'. [Please see the attached written rationale describing the 21<sup>st</sup> Century High School Design Concepts incorporated in the current facility design.] This vision generates some conflicts with the 20 plus-year-old, traditional model described in 702 KAR 4:170 and 4:180; but we maintain that those conflicts do not make the vision wrong. The Design Development plans submitted by Tate Hill Jacobs/Perkins + Will, have been obtained through a zero-based, additive process that 'right-sized' the total space to reflect: the design capacity; the instructional functions; the combination of flexible and collaborative spaces; and the higher level of performance expected of a building to remain occupant-friendly and useful for the next 30 years.

**AN EQUAL OPPORTUNITY SCHOOL DISTRICT**

Board of Education: John Price, Chair • Melissa Bacon, Vice Chair • Amanda Ferguson • Douglas Barnett • Daryl Love

Superintendent Tom Shelton, Ph.D.

701 East Main Street, Lexington, Kentucky 40502 • Phone: 859.381.4100 • [www.fcps.net](http://www.fcps.net)

We understand the value of a 'rule-of-thumb' model, or a best practice method to use as a guide along the path to reach the right ballpark. We do not understand how or why a 'rule-of-thumb' should be used to produce such a precise result as 272,160 SF, and no more. An area cap, or maximum square footage limit, only makes sense if it is used by the state to determine the maximum construction cost to be funded by SFCC, leaving the remainder to be covered by local funds. The original BG-1 Project Application page 2 included SFCC Cash and Bond as only 12% of the funds to support this project.

In consideration of the issues described above, and based on your recommendation, we presented the following items to our Board for their approval at the November action meeting:

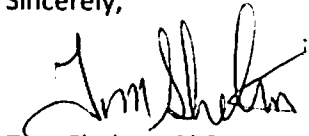
1. Request of an Official Waiver from the Kentucky Board of Education for a variance from the maximum building area Model Space Program for high schools contained in the Kentucky Schools Facilities Planning Manual 702 KAR 4:180, for this particular project only.
2. Revised BG-1 Project Application to document the increases in property acquisition, building area and total project cost that have occurred since the original BG-1 was approved.

Both items were approved by the Board on November 24. Copies of the written actions are enclosed.

The design of the new building continues as the consultants prepare the construction documents. The project schedule calls for the bid advertisement in March and construction to begin in June 2015. We plan to occupy the building in August 2017.

In closing, we urge you and your team to help us remove any obstacles that may remain in order to obtain KDE approval of the plans. Commissioner Holliday has been an outspoken advocate for 21<sup>st</sup> C skills and innovation and we have moved this project forward with that vision in mind. Dr. Holliday has encouraged districts to seek waivers based on innovative approaches and we feel certain that he and his team would support the minor variations from existing regulation that our design plans represent. Please provide a response and guidance at your earliest convenience as this is an extremely important project for the students of Fayette County Public Schools. Thank you.

Sincerely,



Tom Shelton, PhD  
Superintendent  
Fayette County Public Schools

c: Lu Young, FCPS Chief Academic Officer  
Mary Wright, FCPS Chief Operating Officer  
Bill Wallace, FCPS Facility Design & Construction  
Susan Hill, Tate Hill Jacobs Architects  
Greg Dunbar, Manager, KDE District Facilities Branch  
Terry Holliday, Commissioner, KDE  
David Cook, KDE Director of Innovation and Partner Engagement

## **21<sup>st</sup> Century High School Design Concept**

**December 2014**

**From Lu Young, EdD, FCPS Chief Academic Officer**

In order to understand the notion of 21<sup>st</sup> century school design, it is important to take a look back to see where we have been. American schools of the 19<sup>th</sup> and 20<sup>th</sup> centuries were designed to accomplish the goals of most public schools across the country in what is often referred to as a 'factory model.' Students entered high school at ninth or tenth grade and moved annually, often in a linear fashion, through the school from subject area department to department. Learning primarily took place in individual classrooms with one teacher to a group of students who almost always sat in desks in rows. The only students who would typically come and go during the school day were those who took classes at an area vocational school. Because of significant advances in learning technology along with emerging research around the science of learning (neuroscience) and a state and national emphasis on preparing all graduates to be college- and career-ready, we must re-conceptualize high school design to better meet the demands of 21<sup>st</sup> century schools and learners.

**FLEXIBLE GROUPING:** The modern high school experience has the potential to be radically different from the desk-filled, departmentalized classroom experience of the past. Learning spaces must be flexible, providing for a variety of grouping patterns from large group (multiple classes of students at a time), to small group, to one-to-one intervention support, to individualized learning. In order to provide for such variety, 21<sup>st</sup> century high schools need to incorporate flexibility that may include creative design concepts like movable walls, a learning commons rather than a library/media center, flexible furnishings that convert desks into tables and tables into modular work spaces, and the incorporation of outdoor areas to extend learning beyond the exterior school walls. Easily monitored spaces where students can work individually without being 'in' a classroom encourage personalized learning while providing for appropriate supervision. Students and teachers need ubiquitous access to reliable wireless networks.

To further support the flexibility described here, we are moving forward with the design of our new high school built on the premise that most teachers will not 'own' individual classrooms. Much like a college model, courses will be assigned to teachers as driven by student schedules

### **AN EQUAL OPPORTUNITY SCHOOL DISTRICT**

Board of Education: John Price, Chair • Melissa Bacon, Vice Chair • Amanda Ferguson • Douglas Barnett • Daryl Love

Superintendent Tom Shelton, Ph.D.

701 East Main Street, Lexington, Kentucky 40502 • Phone: 859.381.4100 • [www.fcps.net](http://www.fcps.net)

Mailing Address: 1126 Russell Cave Rd., Lexington, Kentucky 40505

and teachers will move to where the students are. To highlight and support the expectation of common teacher planning, teachers will share office/work space conducive to individual work as well as collaboration. This open assignment of classroom space allows school administrators to consider a large variety of master schedule options that may include modular scheduling, 4 x 4 block scheduling, or individualized scheduling similar to that of a college or university.

**LEARNING STYLES:** In addition to providing flexibility for varying group sizes and contexts, 21<sup>st</sup> century high schools must also provide for varying learning styles. Because of recent advances in brain research, educators are capitalizing on the importance of teaching to different learning styles, yet they often run into barriers to meeting the needs of learners who learn best by doing rather than seeing and/or hearing. Next-generation learning innovations include an emphasis on project- and problem-based learning that often requires large, open spaces for prototyping, production, and events like maker fairs, science fairs, and other learning challenges. These innovative approaches to student learning are highly engaging and relevant, but they come with increased demand for storage, electricity, wireless access, noise control, and viewing audiences than would be needed in a traditional classroom environment.

**INTERDISCIPLINARY “SMALLER LEARNING COMMUNITIES”:** Another emerging trend that has implications for the 21<sup>st</sup> century high school design is the research-based trend to break large, comprehensive high schools into smaller learning communities, often referred to as ‘houses,’ ‘academies,’ or ‘teams.’ This design consideration calls planners to move away from departmentalized classroom groupings (science wing, English department, etc.) in favor of thinking first about logical groupings of students and their ‘traffic patterns’ throughout the school. This kind of structure relies on interdisciplinary wings or pods with access to distributed media, distributed administration spaces, distributed science labs, and multipurpose spaces that can be accessed by individual teachers or groups of teachers.

The new Fayette County high school will house the district’s Carter G. Woodson Academy as a stand-alone smaller learning community. Carter G. Woodson students are boys in 6<sup>th</sup> through 12<sup>th</sup> grade who take their core courses and many of their electives within the Academy. By co-existing with the new comprehensive high school, Carter G. Woodson scholars will also have access to additional electives offerings as well as the chance for acceleration. Carter G. Woodson educators and their comprehensive high school colleagues will share common spaces such as the main gym, auxiliary gym, cafeteria, and outdoor facilities.

*From Tresine Loqsdon, FCPS Energy and Sustainability Curriculum Coordinator*

**SUSTAINABLE DESIGN and THE BUILDING AS “LIVING LAB”:** Living Laboratories represent a new paradigm for how public high schools promote student success and serve their community. Fayette County Public Schools embraces the forward-thinking best practice of utilizing our new high school facility (interior classrooms, large group gathering and outdoor classroom space) as Living Labs to merge our 21<sup>st</sup> Century approach to teaching and learning (academics) with campus facility management as a means to provide our students with real-world skills and meet both our environmental literacy and building performance sustainability goals. Unique to FCPS, we have a Sustainability Curriculum Coordinator and Energy Engineer whose synergy with our

students and staff generate broad participation toward the attainment of our school and district sustainability and environmental literacy goals and will provide the critical structure and support necessary to imbed our Living Lab into everyday operations and instruction.

The opportunity for adopting a Living Laboratory in our new high school is vast. Most K-12 schools do not consider facilities operations and improvement strategies to be experiential learning opportunities, but they are! Sustainability-focused curriculum projects are often employed only by staff and students in environmental classes or clubs. We have an existing model at Wellington Elementary and Locust Trace Agriscience Center that we will build upon to develop Kentucky's first robust Living Lab program on a 9-12 campus. We have a clear vision of how our Living Lab will maximize all students' learning experiences and yield benefits to FCPS's "bottom line" as a vehicle for 21<sup>st</sup> Century learning by facilitating experiential learning, improving relevance of sustainability curricula and reducing our carbon footprint.

The following six elements will be key components for our successful adoption of a Living Lab.

- Engaging the right campus and community stakeholders- successful integration of a Living Lab hinges on the active involvement of students, staff, district personnel and community partners
- Building credibility through engagement and data- FCPS has recently acquired live energy monitoring software that is being actively incorporated into student-driven STEAM initiatives through standards-based curriculum. Students in our new high school will document energy and utility savings through active engagement with the software.
- Integrating Living Lab into the curriculum- FCPS is developing ways to connect standards to Living Lab learning projects, i.e., calculating annual daylighting at various locations on campus, building shell R-value, localized stormwater runoff, or HVAC system efficiency.
- Leveraging existing technology for project-based learning- FCPS is developing Green Building Monitoring software that will provide unprecedented opportunities for students to analyze data to promote and feature their campus sustainability projects and goals
- Building partnerships with industry- we will build on our existing Living Lab model that includes active participation from engineers and industry representatives to train students and staff on system operations
- Opening our Living Lab to the community- our new high school will serve as a learning model for local community members as well as state and national partners which will help drive student engagement in environmental literacy and campus operations through tours, a web presence and workshops

By creating a Living Lab hands-on high school environment, we will prepare students with the analytical, interpersonal, and technical skills required to succeed in a variety of careers from conventional green jobs to engineering. Our Living Lab high school will instill in students the desire and ability to think critically about daunting sustainability challenges both locally and globally.

**APPROVAL OF A WAIVER REQUEST OF 702 KAR 4:180**  
**RELATED TO THE TOTAL BUILDING AREA OF THE**  
**NEW HIGH SCHOOL ON WINCHESTER ROAD**  
**(1970 WINCHESTER ROAD)**  
**BG 14-159**

**BACKGROUND AND RATIONALE:** The construction of a new 1,800-student high school to be located on a new 65-acre site located at 1970 Winchester Road is listed as priority 1a.5 on FCPS's 2013 District Facility Plan. Tate Hill Jacobs Architects and Perkins + Will have produced Design Development Documents describing the construction a new high school totaling approximately 285,790 SF to serve 1,800 students. The building program is the result of several months of discussions among the design team, the building committee and small user groups to describe the instructional vision for, and to determine the exact form of, the 21<sup>st</sup> Century high school required of this project. KDE has withheld approval of the building area citing the Model Space Program for 1,500 students contained in 702 KAR 4:180, Table 304.7.3. Using 126 SF/student and an allowance of 120% of the Total Gross Area, KDE calculates that the maximum permissible building area for 1,800 students in the new high school shall be 272,160 SF. As indicated above the proposed new high school plan has 285,790 SF, of which 9,860 SF is an auxiliary gymnasium which the 4:180 model does not have. Removing the auxiliary gym and its 9,860 SF contribution from the argument, the proposed building would total 275,930 SF. This Total exceeds the limit by 3,770 SF (1.4%), or is 3,725 SF less than the new Bryan Station High School building approved by KDE in 2004.

KDE's position is final. In his letter dated October 13, 2014, Hiren Desai, KDE's Associate Commissioner in the Office of Administration and Support states that the current Design Documents are not approvable, and that a "possible resolution maybe for the district to request an official waiver (through KDE) from the Kentucky Board of Education for this particular project." In order to remove this potential obstacle out of the path of the new high school's progress, the approval of this waiver request is recommended

**STAFF CONTACT:** William R. Wallace, AIA, Director, Facility Design & Construction @ 381.3824

**REFERENCE:** 702 KAR 4:160

**RECOMMENDATION:** A motion is in order to:

"Approve the waiver request to the Kentucky Board of Education (via KDE) relative to 702 KAR 4:180 to allow the new high school to exceed the Model Space Program extrapolated for 1,800 students of 272,160 SF, removing the obstacle to KDE approval of the Design Development Documents prepared by Tate Hill Jacobs Architects and Perkins + Will, for the construction of the New High School at 1970 Winchester Road), with the understanding that if such a waiver is granted it would be for this project only and would not allow the district to bypass future project approvals of the Kentucky Department of Education, District Facilities Branch, per the provisions of 702 KAR 4:160."

On a motion by Melissa Bacon, and seconded by Doug Burnett, the Board approves the waiver request to the Kentucky Board of Education (via KDE) relative to 702 KAR 4:180 to allow the new high school to exceed the Model Space Program extrapolated for 1,800 students of 272,160 SF, removing the obstacle to KDE approval of the Design Development Documents prepared by Tate Hill Jacobs Architects and Perkins + Will, for the construction of the New High School at 1970 Winchester Road), with the understanding that if such a waiver is granted it would be for this project only and would not allow the district to bypass future project approvals of the Kentucky Department of Education, District Facilities Branch, per the provisions of 702 KAR 4:160.

John A. Price  
John Price, Chair

Tom Shelton  
Tom Shelton, Superintendent

November 24, 2014

**APPROVAL OF REVISED BG-1 PROJECT APPLICATION FOR THE  
CONSTRUCTION OF THE NEW HIGH SCHOOL  
ON WINCHESTER ROAD  
(1970 WINCHESTER ROAD)  
BG 14-159**

**BACKGROUND AND RATIONALE:** The construction of a new 1,800-student high school to be located on a new site to be determined is listed as priority 1a.1 on FCPS's 2013 District Facility Plan. The Director of FCPS Facility Design & Construction has drafted a preliminary building program of approximately 285,790 SF that is consistent with other recent FCPS high school projects. Project cost estimates include: building construction and site development costs; design and financing fees; furnishings; surveys; and other miscellaneous costs. The project design must begin immediately in order to be ready for occupancy in August 2017.

**PROPOSAL:** Based on the rationale above, a revision to the BG-1 Project Application is required as follows:

	Initial BG-1 Total (12/13)	Proposed Revision BG-1
Total Construction Cost:	\$59,862,500	\$62,957,250
Architect/Engineer Fee:	\$2,719,489	\$2,863,575
Bond Discount:	\$1,299,615	\$1,391,392
Fiscal Agent Fee:	\$247,491	\$256,854
Contingencies:	\$2,993,125	\$3,147,863
Site Acquisition:	\$5,635,000	\$7,475,000
Furnishings/Equipment:	\$2,225,000	\$2,225,000
Furnishings/Computers:	\$375,000	\$375,000
HVAC Balancing	\$20,000	\$20,000
Technology Network Systems (KETS), telephone, etc.:	\$75,000	\$75,000
Surveys, Printing, Title Insurance, etc.:	\$75,000	\$75,000
Special Inspections:	\$283,594	\$294,422
<b>Total Estimated Cost:</b>	<b>\$76,810,814</b>	<b>\$81,166,358</b>

**FUNDING SOURCE:**

<u>Fund</u>	<u>Org. Code</u>	<u>Object Code</u>	<u>Balance</u>
Construction Fund Residuals	36	5210	\$4,390,378.36
Capital Outlay SFCC escrow 2013	31	8738	\$1.34
Capital Outlay Future Construction 2014	31	8735	\$27,417.67
Capital Outlay Construction	0003112	0450	\$712,761.00
Building Fund SFCC escrow 2013	32	8738	\$2,407,487.36
Building Fund Future Construction 2014	32	8735	\$996,840.20
Building Fund Contingency	0003212	0840	\$1,200,119.00
Local and SFCC bond	360	5110	\$71,421,351.07

**STAFF CONTACT:** William R. Wallace, AIA, Director, Facility Design & Construction @ 381.3824

**REFERENCE:** 702 KAR 4:160

November 24, 2014

**RECOMMENDATION:** A motion is in order to:

**\*Approve a revised BG-1 Project Application for the construction of a new 1,800-student high school to be located on 65 acres at 1970 Winchester Road in the amount of \$81,156,356.00 (Eighty-one Million, One Hundred Fifty-six Thousand, Three Hundred Fifty-six Dollars), subject to the approval of the Kentucky Department of Education, District Facilities Branch, per the provisions of 702 KAR 4:160.\***

On a motion by Melissa Bacon, and seconded by Doug Barnett, the Board approves a revised BG-1 Project Application for the construction of a new 1,800-student high school to be located on 65 acres at 1970 Winchester Road in the amount of \$81,156,356.00 (Eighty-one Million, One Hundred Fifty-six Thousand, Three Hundred Fifty-six Dollars), subject to the approval of the Kentucky Department of Education, District Facilities Branch, per the provisions of 702 KAR 4:160.

John D. Price  
John Price, Chair

Tom Shelton  
Tom Shelton, Superintendent

November 24, 2014



SCHOOL DISTRICT: Fayette County Initial: \_\_\_\_\_ Revised: X BG# 14-159  
 PROJECT NAME: New High School at 1970 Winchester Rd

## II. PROPOSED PLAN TO FINANCE APPLICATION

## A. Statement of Probable Costs:

1. Total Construction Cost	\$82,957,250.00
2. Architect/Engineer Fee	\$2,863,575.00
3. Construction Manager Fee	\$0.00
4. Bond Discount	\$1,391,392.00
5. Fiscal Agent Fee	\$256,854.00
6. Construction Contingencies	\$6,147,863.00
7. Site Acquisition	\$7,475,000.00
8. Equipment/Furnishings	\$2,225,000.00
9. Equipment/Computers	\$375,000.00
10. Technology Network Sys. (KETS)	\$75,000.00
11. Other* Surveys / Printing	\$75,000.00
12. Other* HVAC Balancing	\$20,000.00
13. Other* Asbestos Abatement	\$0.00
14. Other* Special Inspections	\$294,422.00
Total Project Cost	\$84,156,356.00

## B. Funds Available:

1. SFCC Cash Req.	\$2,407,488.70
2. SFCC Bond Req.	
3. SFCC Bond Sale	\$6,995,000.00
4. Local FSPK Bond Sale	\$64,426,351.07
5. Local Gen. Fund Bond Sale	
6. Cash - General Fund	
7. Cash - Capital Outlay	\$740,178.67
8. Cash - Building Fund	\$2,196,959.20
9. Cash - Inv. Earnings	
10. KETS	
11. KYTC Reimbursement	
12. Other* residuals 08-307,09-	\$4,390,378.36
13. Other* 152,09-339,10-259,	
14. Other* 11-108,10-261,07-27	
Total Funds Available	\$81,156,356.00

\*Define

\*Define

THE ABOVE INFORMATION IS A STATEMENT OF PROBABLE COST AND FUNDS AVAILABLE AND IS REQUIRED TO BE REVISED TO CORRESPOND TO ACTUAL BIDS RECEIVED PRIOR TO THE SIGNING OF CONSTRUCTION CONTRACTS.

**TO BE COMPLETED ON INITIAL & REVISED APPLICATION:** The signing of this financial document certifies the above stated funds are available and designated for this project during this fiscal year.

Jon Shelton Superintendent  
Mary H. Wright Finance Officer  
John D. Pucci Chairman

11/25/14 Date  
11/24/14 Date  
11/24/14 Date

NOTE: Any district anticipating the financing of this and/or other projects in a combined school revenue Bond should discuss the financing with the Director/Branch Manager, KDE - District Financial Management.

**TO BE COMPLETED ON INITIAL APPLICATION:**

This building project application is approved by the KDE - District Facilities Branch indicating compliance with current District Facility Plan or minor project under 702 KAR 4:180.

Comments: \_\_\_\_\_

Branch Manager, KDE - District Facilities Branch

Date \_\_\_\_\_

**TO BE COMPLETED ON INITIAL & REVISED APPLICATION:**

Tentative financial approval based upon information provided to this office in support of projected cost.

Comments: \_\_\_\_\_

KDE - District Financial Management

Date: \_\_\_\_\_

**TO BE COMPLETED ON INITIAL APPLICATION:**

This building project application is hereby approved according to the conditions outlined in the application. Proceed in accordance with the attached submittal checklist.

Comments: \_\_\_\_\_

KDE - District Support

Date: \_\_\_\_\_