SOUTH COUNTRY CENTRAL SCHOOL DISTRICT
BOARD OF EDUCATION
PUBLIC HEARING

CENTRAL OFFICE

WEDNESDAY, MARCH 23, 2016

A. Call to Order
   Pledge of Allegiance

B. Emergency Evacuation Procedures
   Smoke Free School District

C. Public Commentary- Smart Schools Bond Act Final Plan

D. Adjournment

SMART SCHOOLS INVESTMENT PLAN
SOUTH COUNTRY CENTRAL SCHOOL DISTRICT
FINAL PLAN SUBMISSION – MARCH, 2016

Overview

The Smart Schools Bond Act was passed in the 2014-15 Enacted Budget and approved by the voters in a statewide referendum held during the 2014 General Election on Tuesday, November 4, 2014. The Smart Schools Bond Act (SSBA) authorized the issuance of $2 billion of general obligation bonds to finance improved educational technology and infrastructure to improve learning and opportunity for students throughout the State. As part of the application process, a district must develop a Smart Schools Act Investment Plan that is subject to Board of Education approval. Below is the South Country Central School District's Smart Schools Investment Act final submission plan; included are only the sections where the district will pursue funding, based on the criteria. The following sections denote the district's proposed technology, infrastructure initiatives and long-term plans, per the Smart Schools Bond Act.

School Connectivity

The district's technology initiative, includes high-speed broadband and/or wireless connectivity project upgrades throughout school buildings; the Smart Bond Act allows funding for these projects. The district will attempt to replace 160 Ethernet switches (currently 5-10 years old) with new switches that will increase throughput. Additionally, the district is looking to replace the existing 1G fiber between IDF and MDF closets with 10G fiber. This will require, in addition to new switches, SFP modules and a cable contractor to install the fiber lines. The district will also install redundant fiber lines between school buildings, requiring additional SFP modules and the local ISP to enable the "dark fiber."

Additionally, The SSBA will help provide funding for Chromebooks, Inter-Networking, and interactive whiteboards - all of which are mentioned in the district's technology plan. These tools will allow teachers to significantly integrate 1:1 computing, collaborative learning, flipped classrooms, use of technology as a pedagogical tool to prepare students for Standards Based Assessments and Common Core. Furthermore, the presence of such devices allows students access to learn on a global level, given the resources and material(s) available through the internet. Such exposure to state of the art equipment and technology prepares students for the global job market and higher learning opportunities not available otherwise.

As required by the SSBA, the district will look to improve its connectivity speed based on total enrollment. In addition to replacing 160 outdated switches with state of the art switches (discussed within 'Classroom Learning Technology'), the district will install 10G cabling between and within the buildings will allow for greater connectivity than the minimum standard. The district purchased a router capable of attaining speeds higher than the minimum requirement - at this point the ISP must activate the extra bandwidth, once the infrastructure is in place.

The district quantified this demand by surveying the internet and district plans/initiatives. Furthermore, the technology department conducted walk-throughs independently and with licensed contractors to understand the scope of the Wi-Fi necessary districtwide. Additionally, the technology department investigated wiring contractors and their capabilities. The district solicited proposals for Wi-Fi buildout from several vendors, with input from a district committee. Part of the evaluation included, meeting state-testing requirements, 1:1 student computing programs, ability for the creation of other Wi-Fi networks, the ability to add devices to the network, and ease/flexibility of management. Based on the input, the district evaluated the proposals accordingly and selected the vendor best suited to provide the optimal solution for the district. The upgrade is currently underway, and has been completed as of March 2016.

The estimated cost for these initiatives is $110,000, which includes funding for hardware, installation and professional development/training (VMWare, Cisco).

Classroom Learning Technology

As a precondition to any purchase of devices using a Smart Schools allocation, a district must increase the number of school buildings that meet or exceed the Federal Communications Commission minimum speed standard of 100 Mbps per 1,000 students. To this end, the district will replace approximately 160 outdated switches with state of the art switches, increase bandwidth between building closets, buildings and increase the maximum through-put between the building and ISP. The district will utilize 10G cabling between and within the buildings, which will allow for greater connectivity than the minimum standard. As mentioned previously, the district purchased a router capable of attaining speeds higher than the minimum requirement and must increase bandwidth from the ISP, once the infrastructure is in place. The district looks to complete all the necessary upgrades by the end of the school year.

With respect to WiFi access, the District identified and quantified this demand by surveying the internet and district plans/initiatives. The technology department conducted walk-throughs independently, and with licensed contractors to understand the scope of the Wi-Fi necessary districtwide. The technology department also investigated wiring contractors, their capabilities, and pricing. The district solicited proposals for Wi-Fi buildout from several vendors, with input from a district committee, the Technology Department, Business Office, and Building Principals/Staff. Part of the evaluation included: meeting state-testing requirements, 1:1 student computing programs, ability for the creation of other Wi-Fi networks, the ability to add devices to the network, and ease/flexibility of management. Based on the input, the district evaluated the proposals accordingly and selected the vendor best suited to provide the optimal solution for the district. The upgrade is currently underway, funded through e-Rate, and has been completed as of March 2016.

As part of the technology initiative, also highlighted in the Technology Plan, the district intends to purchase the following devices, which are compatible with the existing and forthcoming platform:

- Interactive Whiteboards – these devices will be deployed within district classrooms for enhanced classroom instruction, and greater engagement among district students. Interactive Whiteboards will allow for greater access to material from the internet, enhanced learning techniques, additional technological interfaces and content, and the ability to deliver differentiated instruction in an efficient and diverse manner. Interactive Whiteboards will run on the district's platform, once wiring is complete.

- SMART Tables – these device tables will engage PreK–2 learners, including students with special needs, in active discussions, problem-solving and small group collaboration activities. Its design makes it ideal for active classrooms and its stable pedestal-base enables wheel chair access. One SMART Table supports up to 40 simultaneous touches, enabling eight students to collaborate on lessons at the same time. It also supports simple, intuitive gestures like rotate, toss and zoom. SMART Tables will be able to run on the district's existing platform and wireless network.

- Google Chromebooks - these machines will be distributed to all district teachers and students for mobile computing purposes. Chromebooks are designed to work with Google Apps for Education (GAFE). The uses include homework assignments, collaboration, digital classroom, flipped classroom, decentralized learning, and research, and the purchases will include touchscreen and non-touchscreen devices. The district maintains a Google domain and Microsoft Office through a web portal (centrally managed) that is integrated with Active Directory. As such, Google Chromebooks will be able on the wireless platform and servers in place. Chromebooks are capable of running all web-based software owned by the district.

- Desktop Computers - The district intends to purchase HP desktop computers running Microsoft Windows Operating System. These desktop computers are necessary for controlling the classroom environment, e.g. projectors, printers, digital overhead cameras, interactive whiteboards, speakers and classroom lessons. The district's planned desktop computer purchases will run Google Chrome (compatibility with Google domain), Microsoft Windows (compatible with file system and Active Directory), email system/server. The district maintains three domain controllers and several servers that handle all desktop functions currently in place.

- Switches - The district intends to replace switches at all buildings (within closets) and the Network Operations Center (NOC). The Ethernet switches are the core of the network, they connect all cabling and networking through network switches. The district will purchase new Cisco switches replacing the current Cisco switches in place as part of the technology infrastructure. New switch purchases will support all Ethernet standards for switching and routing.

These technologies will improve and promote learning standards in numerous capacities, and with students of varying needs. In times of higher learning standards, it is imperative that teachers are equipped with the necessary resources to meet the needs of their students. Differentiation in the classroom involves tailoring instruction to meet the varied levels of readiness, learning needs, and student interest. We will use technology as an effective tool to

engage learners who demonstrate varied learning needs. The use of technology, specifically Wi-Fi access in schools, Interactive Whiteboards, SMART Tables, Chromebooks, Smart Tables, 3-D printers, zSpace, and/or Interactive Whiteboards will aid in enhancing our teachers' ability to differentiate instruction. Students grow and develop at different rates, they learn in different ways and at different speeds. We will use technology to make it possible to pace lessons appropriately for each student's learning level in a specific content area. Furthermore, technology will be used to promote learning in the multiple intelligences and afford students the opportunity to engage in adaptive testing regularly. Teachers will be able to obtain data on students' performance instantly, increasing their ability to adjust lesson plans and instruction in a timely matter, preventing potential student learning gaps. The utilization of 21st century technology will allow us to unlock all students' creative potential.

The district seeks to implement Chromebooks (1:1) in grade 4 and 5 classrooms first. Following, we will phase in two grades per year, until we have provided students in grades 2 – 12 with a Chromebook. The aforementioned initiative will be instrumental in improving teaching and learning for our students inside as well as outside of the classroom. Teachers will utilize google classroom to increase student engagement and collaboration. Students learn best by collaborating with their peers. This initiative will enable students to share, critique, and provide feedback, enhancing their ability to learn. The sharing and collaboration does not end at dismissal of the school day as homework assignments will require students to stay engaged and collaborate from home on the google platform. Teachers will use Google Apps, Google Classroom, and Google Docs. In addition, teachers will learn and share Apps applicable to their content area as a means of enhancing student learning opportunities in the classroom and outside of the school day. Lastly, we will utilize technology to equip after school program offerings with the resources to accelerate learning, specifically for those performing below grade level.

The adoption of 21st century technology will ensure that students who are in need of equitable access do indeed have it. The district takes great pride in ensuring that the inclusion of technology are included within a student's IEP in order to address each individual child's learning targets. To that end, given the varied learning needs of Students with disabilities as well as English Language Learners, the purchase of additional technology resources will be used to personalize education. For example, English Language Learners will be able to utilize the text to voice feature during instructional time as a support toward vocabulary/academic language development. Additional technology resources will ensure equitable distribution and that access to technology equipment are available for students. Furthermore, we will establish provisions for assistive technology to ensure access and participation in the general curriculum for Students with disabilities as well as English Language Learners. In addition, our teachers will utilize varied apps that will aid in improving academic language, communication, and language acquisition to support personalization of learning.

As mentioned earlier, our technology purchases will enhance teachers' ability to differentiate instruction, reducing/closing students' learning gaps. The 1:1 initiative will level the playing field for some of our secondary students who do not have access to technology in their home. Our soon to be 21st century technology classrooms will promote high levels of interactivity, increase student engagement, and make data available quickly in order for teachers to intervene before a student's leaning "crack" becomes a "gap." Furthermore, we will use

additional technology to provide blended learning opportunities for students in after school programs to supplement the needs of students, reducing the learning gap.

Given the nature of the technology initiatives and implementations, it is important to inform and engage parents of the district's progress, before and after. To that end, Chromebooks purchased for each teacher and student, will allow parents will have a real time view into the coursework that their students are working on and completing. Parents will also see the students working on their projects online. Teachers will be able to post assignments online, and parents will have access to viewing project due dates, and their nature. When mobile devices of this nature are given to students and teachers, the learning does not stop when the child leaves the classroom. Learning can now continue past the physical location of the classroom and into the home, regardless of day or time. Students may have continuous access to Chromebooks and Google Chrome at any time, to participate in distance learning opportunities.

In order to successfully roll out the technologies and initiatives, significant professional development and training is necessary for the desired results. As such, the district will utilize Title IIA money for the purposes of professional development, and will begin using its allocation toward professional development focusing on Chromebook use in classrooms, use of technology (and methods) in instruction, and parent engagement with student technologies. Additionally, BOCES holds technology seminars and conferences that teachers, administrators and staff continue to attend. Contracted agencies provide knowledge transfer and professional development to users as part of their agreements, and the district plans on utilizing any available opportunities from such vendors. Annually, the district allocates general fund monies for conferences and workshops; administration will begin to focus PD monies on technology purchased through the SSBA. The district's recently settled teacher's contract calls for increased professional development hours, which will allow for additional PD time offered to the unit, which will primarily focus on instructional uses of mobile devices and interactive whiteboards. This will be a recurring, annual investment as we understand the technology further.

As part of the Smart Schools Bond Act, private and parochial schools within district borders must receive part of the allocation to provide appropriate technology (or infrastructure) to their students. The district's technology department will provide the appropriate technology, and will provide the appropriate hardware on an annual basis, or as needed based on enrollment and the guidelines established by the SSBA. This includes purchased hardware through the SSBA (and not any existing hardware), and may include desktop computers, monitors, printers, projectors and servers. The district will contact the non-public school in the district for their current enrollment, and purchase the appropriate number of Chromebooks for usage within the school, or equivalent devices. Within the enrollment and budget amounts include an allocation(s) for our non-public school; approximately $125,000 for Chromebooks, or equivalent.

With respect to sustainability, the district plans to re-allocate and increase funding in our technology and central data processing codes. The Business Office and Technology department engaged in discussions with third-party vendors regarding increasing staff and technicians to perform maintenance, replacements and system upgrades. As the district is required to maintain a detailed inventory form, we will look to periodically update its inventory lists to reflect the proper additions and perform the necessary deletions of materials that may be obsolete, non-

functioning or impede the functionality of the network. Furthermore, the district negotiated a modified rate with our Internet Service Provider and will continue to do so, should bandwidth increase past the recommended levels. The district currently contracts with an IT Solutions firm, and intends to retain the relationship for troubleshooting, device maintenance, establishing wireless points, network support, strategic planning consultation, training and technology purposes. Continuous training, supported through the General Fund and Title IIA funds will increase with the rollout of devices and will include teachers, administrators, TA's and clerical staff (where necessary) so to understand proper use and maintenance of mobile and desktop devices. Annually, the district will visit and update the technology plan accordingly to include long-term goals with respect to device maintenance and upgrades, to maintain a forward-thinking learning environment.

The district is required to maintain an inventory list of all capitalized items per Generally Accepted Accounting Principle (GAAP) and audit requirements. The district submits the inventory list annually to a third-party inventory firm for valuation, and a five-year on-site assessment takes place to account for all listed devices. The district is proactive in maintaining this list and will continue to do so, as required, and for internal control purposes as devices from the Smart Bond project are deployed. In addition, in-house building technology aides and contracted technology specialists within buildings will oversee device usage and maintenance, and replace, where necessary.

The estimated cost for these initiatives is $3,183,250, which includes funding for 40 interactive whiteboards, 40 SMART Tables, 4,950 Chromebooks, 600 desktop computers, 160 Ethernet enabled switches, necessary installation and hardware, and professional development/training (VMWare, Cisco).

High-Tech Security

A component of the Smart Schools Bond act calls for funding to install high-tech security features in school buildings and on school campuses. The district's Technology and Buildings and Grounds departments identified security upgrades that would improve student and staff safety, that may also benefit law enforcement and district emergency planning.

The district will look to replace existing video surveillance servers with state-of the art servers, software upgrades, Scholarchip door entry accessibility, and improved functionality of the door-access server, installation of panic switches ("hot buttons"), wireless FOB's, and integration of camera server and door access server to allow for access specific surveillance. The district will also install additional door swipes and cameras at the district's new Community Center and the addition of a server and software for remote monitoring via wireless devices.

The estimated cost for these initiatives is include purchase of servers, software, project engineering, training, physical hardware, mounting brackets, wiring, cameras, wireless tablets, panic buttons, door access swipes, and FOB's. These upgrades are not considered a capital improvement, and is not be eligible for Streamlined Review by the Office of Facilities Planning.

Conclusion

The district's initial proposal calls for an investment of $3,613,250 from the district's Smart Schools Bond Act allocation of $4,480,887. The district solicited input from numerous stakeholders, including staff, students, administrators, parents, and community members through meetings, planning committees, assessments, development of other plans and constant communication regarding the district's needs. Identified are the district's intended uses of the Smart Schools Bond Act monies that satisfy the district and State's vision and investment of financing in educational technology and infrastructure, in order to provide students access to the latest technology and connectivity needed to succeed and compete in the global economy.