

Morris Central School

Smart Schools Investment Plan

Total Smart Schools Bond Act Allocation- \$529,156

Smart Schools Bond Act (SSBA)

The Smart Schools Bond Act of 2014 was passed in the 2014-15 New York State Enacted Budget and approved by voters in a statewide referendum held during the 2014 General Election. The Smart Schools Bond Act 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.

The purpose of the Smart Schools Bond Act is to improve learning and opportunity for public and nonpublic school students by funding capital projects to:

- 1) Install high-speed broadband or wireless internet connectivity for schools and communities;
- 2) Acquire learning technology equipment or facilities, including but not limited to interactive whiteboards, computer servers, and desktop, laptop and table computers;
- 3) Construct, enhance, and modernize educational facilities to accommodate pre-kindergarten programs and to provide instructional space to replace classroom trailers; and/or
- 4) Install high-tech security features in school buildings and on school campuses, including but not limited to video surveillance, emergency notification systems, and physical access controls.

Demonstration of Need

Once the announcement of the Smart Schools Bond Act was made, the Morris Central School District commenced a process to develop the needs of the school district, both short term and long term needs. The following steps were followed to help develop this plan of needs:

- 1) The District's current Technology Plan was reviewed and updated to highlight current needs. The plan highlights three items that the District will focus on. They are:
 - a. Only approximately 80% of the district's instructional space has wireless coverage;
 - b. A wish to increase 1:1 devices to provide greater student access to technology;
 - c. The need to enhance the district's network cabling;
- 2) As part of the state required 2015 Building Condition Survey (BCS), the District contracted with ECC Technologies to conduct a Security Assessment Report. This was completed during the summer of 2015 with the report submitted to the District in October of 2015. This report was reviewed with key stakeholders of the district and

then reviewed by the Board of Education at its November, 2015 school board meeting. Some of the highlights of the report were:

- a. A need to update the security systems including updated surveillance equipment, possible intrusion detection system, new visitor sign-in system and the re-configuration of the Visitor Entrance;
 - b. To automate the lockdown system, integration of the PA system with the telephone system to allow for mass notifications, installation of security blue lights in certain areas in and around the building and installation of panic buttons in all classrooms and in other parts of the building;
 - c. The installation of a new VoIP telephone system, voice mail, unified communication and associated IP telephones for all locations and expand the Wireless network to the entire campus. The current telephone system does not allow teachers in classrooms to place outside calls, including to 911 in case of an emergency. The current system also only allows an all-call to be made from one phone. The district also has very limited cell-phone service so a quality phone system is imperative;
 - d. The installation of category 6A cabling for all new cabling outlet locations, adding cable management to the three Telecommunication rooms, the addition of new switches with layer 3 routing capabilities, to implement a higher speed backbone (10g) between the Telecommunication rooms and the server room, and increase the exterior coverage by adding exterior Wireless Access points. It is also recommended to ground all Telecom racks and equipment and to install air conditioning in Telecom rooms to ensure equipment doesn't overheat;
 - e. The addition and replacement of emergency interior and exterior lighting;
 - f. To add a chain link fence around the perimeter of the bus garage parking lot where buses are parked.
- 3) In December of 2015, the District's Crisis Management Committee met and reviewed the Safety Audit. As a committee, a list of recommendations was made which prioritized needs.
 - 4) Working in conjunction with Bernier Carr Associates who completed the District's Building Condition Survey, a team of district employees developed a Five-Year Facilities Plan to help address the needs of the District. This plan was reviewed by the Board of Education at its February, 2016 meeting.
 - 5) The school district utilized the school's Shared Decision Making team as the committee to review Building Condition Survey, Technology Plan, Security Audit and Five-Year Facilities Plan to develop a list of needs which the school's Smart Schools Bond allocation could be used for. This committee is comprised of school faculty/staff, parents, students and community members.

Technological Infrastructure

Through the development of the District's Technology Plan, it was determined that the District exceeds the Federal Communications Commission minimum speed standard of 100 Mbps per 1,000 students with 1 Gbps (1,000 Mbps) for a student population of 388.

The District's current enterprise-grade Wi-Fi network has sufficient bandwidth to meet the projected user demand. The Wi-Fi network in place utilizes Gigabit connections between each access point and network switch. The access points all support Dual-Band (802.11a/b/g/n, 2.4Ghz/5Ghz) and are powered via POE. The network backbone connecting Wi-Fi AP's utilizes Gigabit connections between each switch. The physical network is primarily composed of CAT5E and CAT6 cabling, with a fiber backbone.

Further improvements to the District's network would include:

- Implementation of newer Access Points (802.11AH/AC compatible);
- Implementation of a 10GB/e backbone w/10GB/e switching;
- Extension of wireless network coverage to Athletic fields/Bus garage.

Classroom Technology Purchases

Over the past several years, the District has had a technology plan that called for Smartboards in all classrooms in the District, the creation of computer labs for students in PK-12th grade, installation of computers in the library and the purchase of laptop computer carts that can be used by all classroom teachers. All teachers also have laptop computers for administrative and educational purposes. Through a yearly purchase plan and use of IPAs, the District has accomplished these goals and has been able to replace equipment as needed. During the 2014-2015 school year, the District also started a 1:1 personal device plan for students and teachers in grade 5-12. In the first year, students and teachers in grades 5 through 8 were provided personal iPads. This roll-out will include one more grade each year until the goal is met for all students and teachers in 5-12 to possess a personal iPad for use at school and home. As part of the Technology Plan, the District plans to continue the 1:1 iPad initiative and increase the wireless network.

Professional Development

Early in the plan to improve technology in the District, Morris paid a stipend to a full-time teacher to act as the District Technology Coordinator who not only helped with the actual technology, but also in the provision of professional development to teachers and staff. With the current phase-in of 1:1 personal devices for all students and teachers in grades 5-12, the Technology Coordinator's position was moved to an 80% position in September of 2014. As part of this position's responsibilities, professional development is to be provided both during the summer and after-school. The Technology Coordinator also works directly in classrooms with teachers and students on ways to enhance the use of iPads and other technology as instructional tools.

The District has worked closely with the SUNY Oneonta's teacher preparation program for several years to ensure that the teachers and administrators of the district receive quality professional development in technology, but also to ensure that students from the teacher preparation program are immersed in classes that use various forms of educational technology

to enhance instruction. In the 2012-2013 school year, the District worked with SUNY Oneonta and won a grant which provided a number of laptop computers and iPads. The premise of the grant was to provide student teachers enriched experiences with the immersion of technology in the classroom.

In January of 2016, the District reached out to Dean Jan Bowers from the SUNY Oneonta teacher preparation program for advice on innovative uses and best practices of pedagogy and educational technology that may facilitate the effective implementation of the district's Professional Development Plan and continuous growth for teachers. Doctor Elaine Lawrence, chair of the Educational Technology Department contacted the District and plans are in place to collaborate with the college for professional development in the area of technology.

Technical Support

The District currently contracts through ONC BOCES for Desktop Support two days/week. This person provides assistance in the installation, configuration and maintenance of the technology in the district. As stated before, we also employ a Technology Coordinator who spends 80% of his day providing support to the faculty, staff and students in the area of technology. Lastly, the District has a Technology Specialist on retainer which helps support the overall network.

Sustainability

Over the past several years, the District has had the vision and technology plan in place to enhance and maintain the district's technology. Through the use of BOCES IPAs and good planning, the District will be able to provide the students and staff of the district with the needed technological tools to be prepared for the future. Our plan is to use a small portion of our SMART Bond allocation to help sustain the technology that we have.

Preliminary Smart Bond Investment Plan

The Morris Central School District Smart Bond Investment Plan will focus on the enhancement of the District's security and the infrastructure to ensure that these security elements are possible. Following is the budget in the preliminary plan proposed by the Smart Schools Investment Plan Committee and approved by the Board of Education.

Security Enhancement Features:

- ✓ Upgrade video surveillance system- \$65,200
- ✓ Upgrade visitor's entrance and new sign-in system- \$22,000
- ✓ Additional door access controls- \$9,000
- ✓ Provide enhancements for the lock-down, lock-out procedures- \$62,800
- ✓ Provide new VOIP phone system- \$57,600
- ✓ Night and Site Lighting- \$35,300
- ✓ Fencing for bus garage- \$15,000

- Total- \$266,900

Technology Enhancement Features:

- ✓ Wireless network improvements- \$27,000
- ✓ Network upgrades (POE switches), add UPS and single mode fiber MDF to IDF, & new network ports- \$56,982
- ✓ Addition of proper rack and grounding- \$3,000
- ✓ Provide dedicated AC to server rooms- \$40,000
- ✓ Cat. 6A cable & cable management- \$60,900
 - Total- \$187,882

Annual Sustainability:

- ✓ Projected cost to replace purchased hardware- \$50,000 over five years
- ✓ Projected equipment repair to purchased technology- \$24,374 over five years
 - Total- \$74,274

Any questions or comments should be directed to:

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