

Smart Schools Investment Plan - 2016-17 Version (Original) - PittsfordCSD_SSBav1

SSIP Overview

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Institution ID

80000050008

1. Please enter the name of the person to contact regarding this submission.

Jeff Cimmerer

- 1a. Please enter their phone number for follow up questions.

585-267-1084

- 1b. Please enter their e-mail address for follow up contact.

jeff_cimmerer@pittsford.monroe.edu

2. Please indicate below whether this is the first submission, a new or supplemental submission or an amended submission of an approved Smart Schools Investment Plan.

First submission

3. All New York State public school districts are required to complete and submit a District Instructional Technology Plan survey to the New York State Education Department in compliance with Section 753 of the Education Law and per Part 100.12 of the Commissioner's Regulations. Districts that include investments in high-speed broadband or wireless connectivity and/or learning technology equipment or facilities as part of their Smart Schools Investment Plan must have a submitted and approved Instructional Technology Plan survey on file with the New York State Education Department.

By checking this box, you certify that the school district has an approved District Instructional Technology Plan survey on file with the New York State Education Department.

District Educational Technology Plan Submitted to SED and Approved

4. Pursuant to the requirements of the Smart Schools Bond Act, the planning process must include consultation with parents, teachers, students, community members, other stakeholders and any nonpublic schools located in the district.

By checking the boxes below, you are certifying that you have engaged with those required stakeholders. Each box must be checked prior to submitting your Smart Schools Investment Plan.

Parents

Teachers

Students

Community members

- 4a. If your district contains non-public schools, have you provided a timely opportunity for consultation with these stakeholders?

Yes

No

N/A

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5. **Certify that the following required steps have taken place by checking the boxes below: Each box must be checked prior to submitting your Smart Schools Investment Plan.**

- The district developed and the school board approved a preliminary Smart Schools Investment Plan.
- The preliminary plan was posted on the district website for at least 30 days. The district included an address to which any written comments on the plan should be sent.
- The school board conducted a hearing that enabled stakeholders to respond to the preliminary plan. This hearing may have occurred as part of a normal Board meeting, but adequate notice of the event must have been provided through local media and the district website for at least two weeks prior to the meeting.
- The district prepared a final plan for school board approval and such plan has been approved by the school board.
- The final proposed plan that has been submitted has been posted on the district's website.

5a. **Please upload the proposed Smart Schools Investment Plan (SSIP) that was posted on the district's website, along with any supporting materials. Note that this should be different than your recently submitted Educational Technology Survey. The Final SSIP, as approved by the School Board, should also be posted on the website and remain there during the course of the projects contained therein.**

ssiptemplate2_22_17_website_v1.pdf
 smart schools bond act_website_v12_24_17.pdf

5b. **Enter the webpage address where the final Smart Schools Investment Plan is posted. The Plan should remain posted for the life of the included projects.**

<https://www.pittsfordschools.org/Page/873>

6. **Please enter an estimate of the total number of students and staff that will benefit from this Smart Schools Investment Plan based on the cumulative projects submitted to date.**

5,701

7. **An LEA/School District may partner with one or more other LEA/School Districts to form a consortium to pool Smart Schools Bond Act funds for a project that meets all other Smart School Bond Act requirements. Each school district participating in the consortium will need to file an approved Smart Schools Investment Plan for the project and submit a signed Memorandum of Understanding that sets forth the details of the consortium including the roles of each respective district.**

- The district plans to participate in a consortium to partner with other school district(s) to implement a Smart Schools project.

8. **Please enter the name and 6-digit SED Code for each LEA/School District participating in the Consortium.**

Partner LEA/District	SED BEDS Code
(No Response)	(No Response)

9. **Please upload a signed Memorandum of Understanding with all of the participating Consortium partners.**

(No Response)

10. **Your district's Smart Schools Bond Act Allocation is:**

\$1,509,818

11. **Enter the budget sub-allocations by category that you are submitting for approval at this time. If you are not budgeting SSBA funds for a category, please enter 0 (zero.) If the value entered is \$0, you will not be required to complete that survey question.**

	Sub-Allocations
School Connectivity	440,073

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	Sub-Allocations
Connectivity Projects for Communities	0
Classroom Technology	0
Pre-Kindergarten Classrooms	0
Replace Transportable Classrooms	0
High-Tech Security Features	332,704
Totals:	772,777

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School Connectivity

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1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that:
 - sufficient infrastructure that meets the Federal Communications Commission’s 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or
 - is a planned use of a portion of Smart Schools Bond Act funds, or
 - is under development through another funding source.

Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:

 1. Specifically codified in a service contract with a provider, and
 2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.

Please describe how your district already meets or is planning to meet this standard within 12 months of plan submission.

As a partner with our local BOCES, we currently exceed the Federal Communications Commission minimum speed standard of 100 Mbps per 1,000 students in each school setting.

- 1a. If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.

By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. Connectivity Speed Calculator (Required)

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	5,701	570,100	570.1	1000	1000	Current

3. Describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in school buildings.

The Pittsford Central School District plans to use the SSBA funds to replace our current core and edge switches, which are nearing end of life. The upgrade will increase bandwidth available to instructional spaces, including large group rooms, cafeterias, and gymnasiums that may be utilized for computer based testing. Wireless access points and computers will both move from 100 megabit connections to a gigabit connection. This will enable the district to make use of upgraded Cat 6E cables that were installed recently under a capital project. Our current environment is at capacity with only one Power over Ethernet plus (PoE+) switch per closet. Increased numbers of PoE+ switches will allow for further growth of our wireless infrastructure to meet the demand for bandwidth in classrooms as there is an increase usage of Internet services for our students. With these funds, we believe it’s our responsibility to provide a stable infrastructure that removes current impediments and promotes the use of technology integration to improve the instructional out comes for our students.

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4. Describe the linkage between the district's District Instructional Technology Plan and the proposed projects. (There should be a link between your response to this question and your response to Question 1 in Part E. Curriculum and Instruction "What are the district's plans to use digital connectivity and technology to improve teaching and learning?")

Stakeholders in the Pittsford Central Schools believes that it is our obligation to provide our students with technology-rich learning environments where new and emerging technologies are integrated into curriculum and applied to instruction by well-trained teachers. We want to enable our teachers and students to be able to access information, provide diverse learning and teaching experiences and establish connections beyond our school communities. To do that, we are looking to continue to add wireless capabilities to allow for growing our online learning, blended learning, videoconferencing opportunities and providing areas for computer based testing. In addition, we are working to accommodate the learning needs of all students through the principles of universal design for learning. Technology allows us to differentiate to meet the needs of all students. By providing a stable infrastructure, we can provide additional opportunities for differentiation. We hope that with a consistent and robust infrastructure, we will be able to avoid potential roadblocks (network congestion, buffering issues, etc.) for teachers that make it difficult to embed the technology within their lessons. For additional information, please reference our Tech Quest 7 plan on our website at: <http://www.pittsfordschools.org/departments.cfm?subpage=363>

5. If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.

Please describe how you have quantified this demand and how you plan to meet this demand.

Originally, when we started the process of providing wireless access points in each of our 11 buildings, we worked with a number of vendors to complete a proof of concept. The Meridian Technology Group and Aruba Technologies were able to design and stand up a proof of concept using the Aruba platform. In addition, they were able to provide us with a software solution that could be used to help find areas of need, such as coverage and density. When purchased with district funding, Meridian and Aruba were able to certify that the access points that were chosen would be able to support a client density of up to 60 devices hitting each access point at a time. While density was a concern, so was coverage. Utilizing Aruba Airwave software, we are able to fine tune areas through a number of checks and balances (heat maps and wireless health reports) to determine where there are gaps. However, due to our lack of PoE+ switches, we are not always able to add an additional access point to an area to fill that gap. With that, we are looking to utilize the investment plan to ensure that the school district network can accommodate the density and to fill in the gaps of coverage that we are seeing during the school day with the number of devices that touch the network. Based on a room by room walk through during the 2017 school year, we have identified large group instruction areas, gymnasiums, common space learning space areas, and possible large group testing areas which still need additional coverage.

6. As indicated on Page 5 of the guidance, the Office of Facilities Planning will have to conduct a preliminary review of all capital projects, including connectivity projects.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
26-14-01-06-7-999-BA2

7. Certain high-tech security and connectivity infrastructure projects may be eligible for an expedited review process as determined by the Office of Facilities Planning.

Was your project deemed eligible for streamlined review?

Yes

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7a. Districts that choose the Streamlined Review Process will be required to certify that they have reviewed all installations with their licensed architect or engineer of record and provide that person's name and license number. The licensed professional must review the products and proposed method of installation prior to implementation and review the work during and after completion in order to affirm that the work was code-compliant, if requested.

I certify that I have reviewed all installations with a licensed architect or engineer of record.

8. Include the name and license number of the architect or engineer of record.

Name	License Number
Gian-Paul Piane	25315

9. If you are submitting an allocation for School Connectivity complete this table.

Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Network/Access Costs	364,453
Outside Plant Costs	0
School Internal Connections and Components	75,620
Professional Services	0
Testing	0
Other Upfront Costs	0
Other Costs	0
Totals:	440,073

10. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be eligible for tax-exempt financing to be reimbursed through the SSBA. Sufficient detail must be provided so that we can verify this is the case. If you have any questions, please contact us directly through smartschools@nysed.gov.
NOTE: Wireless Access Points should be included in this category, not under Classroom Educational Technology, except those that will be loaned/purchased for nonpublic schools.
 Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Network/Access Costs	Catalyst4500E 7 slot chassis for 48Gbps/slot, fan, no ps	1	3,218	3,218
Network/Access Costs	SN7C-24X7X4 Catalyst4500E 7 slot chassis for 48Gbps	1	9,274	9,274
Network/Access Costs	Catalyst 4500 E-Series Supervisor 8-E	1	9,198	9,198
Network/Access Costs	Catalyst 4500 E-Series Redundant	1	9,198	9,198

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	Supervisor 8-E			
Network/Access Costs	Catalyst 4500 E-Series 48-Port 10/100/1000 Non-Blocking	1	3,218	3,218
Network/Access Costs	Catalyst 4500 E-Series 12-Port 10GbE (SFP+)	1	12,418	12,418
Network/Access Costs	Catalyst 4500 E-Series 12-Port 10GbE (SFP+) Spare	1	12,418	12,418
Network/Access Costs	Catalyst 4500 4200W AC dual input Power Supply (Data + PoE)	1	1,378	1,378
Network/Access Costs	Catalyst 4500 4200W AC dual input Power Supply (Data + PoE)	1	1,378	1,378
Network/Access Costs	Paper IP to Ent Services License	1	4,598	4,598
Network/Access Costs	Catalyst 2960-X 48 GigE PoE 740W, 2 x 10G SFP+, LAN Base K12	79	3,677	290,538
Connections/Components	Catalyst 2960-X FlexStack Plus Stacking Module	79	549	43,426
Connections/Components	Catalyst 2960-X FlexStack Plus Stacking Module optional	35	549	19,239
Connections/Components	Cisco Bladeswitch 3M stack cable	31	138	4,278
Connections/Components	10GBASE-LRM SFP Module	6	457	2,746
Connections/Components	10GBASE-ER SFP Module	1	4,600	4,600
Connections/Components	10GBASE-LR SFP Module, Enterprise-Class	1	874	874
Connections/Components	10GBASE-SR SFP Module	1	457	457
Network/Access Costs	ASA 5512-X with SW, 6GE Data, 1GE Mgmt, AC, 3DES/AES	2	1,837	3,675
Network/Access Costs	SNTC-8X5XNBD ASA 5512-X with SW,	2	1,006	2,012
Network/Access Costs	ASA 5512-X Sec. Plus Lic. w/ HA, Sec Ctxt, more VLAN + Conns	2	460	920
Network/Access Costs	ASA 5512-X -- ASA 5555-X Rail Kit	2	230	460
Network/Access Costs	Cisco AnyConnect 25 User Plus Perpetual License	1	483	483
Network/Access Costs	SW APP SUPP + UPGR Cisco AnyConnect 25	1	69	69

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High-Tech Security Features

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1. Describe how you intend to use Smart Schools Bond Act funds to install high-tech security features in school buildings and on school campuses.

Pittsford Central School District plans to utilize the SSBA funding to upgrade our current Voice over IP (VoIP) phone solution that is currently in the District. When initially purchased in the early 2000's, there were few security features that PCSD could utilize during emergency situations. With newer equipment, we will be able to allow security to communicate directly with locations immediately and simultaneously via a visual only (text) or voice message. In addition, these phones will allow us to provide us with a dedicated button on the phone that will open a speaker phone conference call directly with the Security Department, Nurses' Offices, or other critical areas in an emergency situation. With this upgraded system, all stakeholders can be reachable at all times. We would also like to tie the new system in to our public address system in case a building wide notification must be made. Also, we would like to pursue utilizing the VoIP solution to tie into our magnetic exterior door locks.

Equipment that will be purchased will enhance 911 call survivability during fiber network/Internet outages by providing a back-up to copper lines so that communications can continue to emergency command, dispatch, and control. Specifically, this would be a failover system that allows calls to continue to the police and fire department resources.

2. All plans and specifications for the erection, repair, enlargement or remodeling of school buildings in any public school district in the State must be reviewed and approved by the Commissioner. Districts that plan capital projects using their Smart Schools Bond Act funds will undergo a Preliminary Review Process by the Office of Facilities Planning.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
26-14-01-06-7-999-BA2

3. Was your project deemed eligible for streamlined Review?

- Yes
- No

- 3a. Districts with streamlined projects must certify that they have reviewed all installations with their licensed architect or engineer of record, and provide that person's name and license number. The licensed professional must review the products and proposed method of installation prior to implementation and review the work during and after completion in order to affirm that the work was code-compliant, if requested.

By checking this box, you certify that the district has reviewed all installations with a licensed architect or engineer of record.

4. Include the name and license number of the architect or engineer of record.

Name	License Number
Gian-Paul Plane	25315

5. If you have made an allocation for High-Tech Security Features, complete this table.

Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Capital-Intensive Security Project (Standard Review)	0
Electronic Security System	332,704
Entry Control System	0
Approved Door Hardening Project	0
Other Costs	

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High-Tech Security Features

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	Sub-Allocation
	0
Totals:	332,704

6. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.

Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Electronic Security System	Cisco ATA 190	11.00	162	1,782
Electronic Security System	Cisco CP - 8841 -K9	975.00	278	271,148
Electronic Security System	Cisco C-4331- No-T1 Survivable/failover phone gateway for 911 calls to enhance and back up security communications during external network failures (without T-1 connectivity, leverages plain old telephone lines, POTS lines)	6.00	5,301	31,806
Electronic Security System	Cisco C-4331- T1 Survivable/failover phone gateway for 911 calls to enhance and back up security communications during external network failures (with T-1 connectivity)	4.00	6,992	27,968