Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

SSIP Overview

Page Last Modified: 01/04/2018

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

    Demian Singleton

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

         5184566200

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

         singletond@guilderlandschools.net

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.**

    Supplemental 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

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 occured 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.

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

SSIP Overview

Page Last Modified: 01/04/2018

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.**

GCSDSSIPFinalDraft (2).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.**

http://www.guilderlandschools.org/district/newsarchive/1516/040816smartschools.cfm

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.**

5,400

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:**

$2,096,732

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	32,724
Connectivity Projects for Communities	0
Classroom Technology	498,723
Pre-Kindergarten Classrooms	0
Replace Transportable Classrooms	0
High-Tech Security Features	0
Totals:	**531,447**

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

School Connectivity

Page Last Modified: 12/29/2017

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.

   In the 2016-17 school year, Guilderland CSD upgraded its infrastructure to support numerous technology-centered learning initiatives. The upgrading and expansion of this infrastructure have been priorities for the district since 2010 . In order to support this effort and be in compliance with required minimum speed standards, The district has increased bandwidth to 500 Mbps. The district also plans to increase to 600 Mbps within 12 months Our wi-fi coverage is excellent in all the school facilities. We do, however, look forward to the upgrade of some wireless networks to more current protocols.

   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	4,909	490,900	490.9	500	600	Currently met

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 Guilderland Central School District Smart Bond Investment Plan will focus on the enhancement of classroom technology. Following is the budget in the preliminary plan proposed by the Smart Schools Investment Plan Committee and presented to the Board of Education for initial approval. Proposed projects have been aligned with one of the four main categories for SSBA funding
   Upgrades in connectivity described here will support the district's efforts to establish 1:1 learning opportunities for grades 6-12. Additionally, our ability to operate a digital media program will be enhanced. Significant improvements to our digital media system will be made by purchasing new equipment to upgrade antiquated equipment (analog) to digital systems. This will afford all students greater opportunity to create, produce, and share contemporary products to the entire school community and beyond. Our student news program will also benefit from this project. Purchase of related servers, switches, and uninterrupted power supplies will also be made to ensure that adequate infrastructure is able to support such projects.

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

School Connectivity

Page Last Modified: 12/29/2017

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?)**

The Guilderland Central School District has and will continue to, establish a fully-connected learning environment for all learners. To this extent, we will maintain a robust infrastructure as the foundation for connection of district-provided devices (Chromebooks, iPads, laptops) and student-owned devices. Our goal is a 1:1 environment whereby students and teachers are able to connect at any point, to engage students and maximize learning. We have established a Google Apps for Education (GAFE) which has greatly enhanced efficiency in learning, collaboration, and the curation of content and information. Additionally, remote connectivity with experts in the field, universities, authors, other schools, and classes, etc. will extend learning experiences well beyond the walls of our classrooms.

The proposed project will ensure that all technology-enhanced learning activities (Classroom Learning Technologies) and opportunities can be facilitated without delay or obstruction caused by inadequate connectivity and infrastructure. Our implementation of a 1:1 model will also ensure equity in access and maximization of technology-enhanced learning applications. Related, our improved digital media production capabilities will greatly enrich technology-based communications and 21st century projects. Upgrades to our digital media systems, as described, will afford all students expanded opportunities to share media projects with their school community and beyond. School-wide communications through our Student News programs will also be enhanced. Such opportunities maximize student engagement and creativity. The broadcast of media productions to a broader audience is a tremendous motivator for students. Additionally, digital media systems will be used by our student Technology Help Desk (FCAST) top create video tutorials for teachers and peers. This will serve as an invaluable resource while transitioning to a 1:1 environment., Improved school connectivity via the components and systems described below will enable effective use of classroom learning technologies.

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.

   The district has worked closely with a consultant to evaluate wireless connectivity in all sites and locations. Although we are very near full saturation, we look forward to achieving full saturation whereby access points are installed in all classrooms and common learning spaces. Additionally, we wish to upgrade to current standards and wireless protocols where necessary. Such upgrades have been outlined in SSIP! and will be essential for planned upgrades to classroom technology as described in the SSIP.

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
01-08-02-06-7-999BA1

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

   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.

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

School Connectivity

Page Last Modified: 12/29/2017

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

Name	License Number
Daniel D. Woodside	28237

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	1,309
Outside Plant Costs	(No Response)
School Internal Connections and Components	31,415
Professional Services	(No Response)
Testing	(No Response)
Other Upfront Costs	(No Response)
Other Costs	(No Response)
Totals:	**32,724**

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	8TB 2-Bay NAS Server	1	490	490
Network/Access Costs	2200VA Uninteruptable Power Supply	1	757	757
Network/Access Costs	8 Port Network Switch	1	62	62
Connections/Components	VSGi Installation with orientation - with on-site product review provided by the installation engineer	1	28,805	28,805
Connections/Components	Commissioning (System Performance)- Technicians will complete full configuration of hardware and software required for use of digital media production capabilities. This will be completed in 2 spaces in district where such hardware and software are	2	1,305	2,610

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

School Connectivity

Page Last Modified: 12/29/2017

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	available			

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Community Connectivity (Broadband and Wireless)

Page Last Modified: 12/18/2017

1. **Describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in the community.**

   (No Response)

2. **Please describe how the proposed project(s) will promote student achievement and increase student and/or staff access to the Internet in a manner that enhances student learning and/or instruction outside of the school day and/or school building.**

   (No Response)

3. **Community connectivity projects must comply with all the necessary local building codes and regulations (building and related permits are not required prior to plan submission).**

   ☐   I certify that we will comply with all the necessary local building codes and regulations.

4. **Please describe the physical location of the proposed investment.**

   (No Response)

5. **Please provide the initial list of partners participating in the Community Connectivity Broadband Project, along with their Federal Tax Identification (Employer Identification) number.**

Project Partners	Federal ID #
(No Response)	(No Response)

6. If you are submitting an allocation for **Community 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	(No Response)
Outside Plant Costs	(No Response)
Tower Costs	(No Response)
Customer Premises Equipment	(No Response)
Professional Services	(No Response)
Testing	(No Response)
Other Upfront Costs	(No Response)
Other Costs	(No Response)
Totals:	**0**

7. **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.

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Community Connectivity (Broadband and Wireless)

Page Last Modified: 12/18/2017

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Classroom Learning Technology

Page Last Modified: 01/04/2018

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.

    The Guilderland Central School District already has the capacity to meet the FCC standard as described. In the 2016-17 school year, Guilderland CSD upgraded its infrastructure to support numerous technology-centered learning initiatives. The upgrading and expansion of this infrastructure have been priorities for the district since 2010 . In order to support this effort and be in compliance with required minimum speed standards, The district has increased bandwidth to 500 Mbps. The district also plans to increase to 600 Mbps within 12 months Our wi-fi coverage is excellent in all the school facilities. We do, however, look forward to the upgrade of some wireless networks to more current protocols.

    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	4,909	490,900	490.9	500	600	Currently met

3. **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.

    To meet the demands for internet access, the district has installed wireless access points in most classrooms and common areas. Final installations through Smart Schools will achieve full saturation throughout the district. Using the per person capacity of the rooms we will base the number of access points per room by the maximum capacity of the room divide by 30. The district will follow the FCC internet guidelines, of 100 Mbps per 1000 students, contracting through BOCES for a minimum internet bandwidth connection speed as described previously.

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Classroom Learning Technology

Page Last Modified: 01/04/2018

4. **All New York State public school districts are required to complete and submit an 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 educational technology purchases 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 are certifying that the school district has an approved Instructional Technology Plan survey on file with the New York State Education Department.

5. **Describe the devices you intend to purchase and their compatibility with existing or planned platforms or systems. Specifically address the adequacy of each facility's electrical, HVAC and other infrastructure necessary to install and support the operation of the planned technology.**

Guilderland CSD has developed a strategic replacement and expansion plan related to technology purchases using SSIP and other funds. The purchases planned using these funds are compatible with existing platforms and directly support current and planned instructional initiatives. Some of the devices will replace existing older devices and others will allow for the expansion of new technology into grades where it has not been deployment has been slow. Additional Chromebooks will be purchased to support the district's on-going initiative to move to a 1:1 environment in grades 3-12 and to replace older generations and/or obsolete devices. As new devices are purchased, some of the current devices will be re-deployed to other grade levels or areas.

Other planned projects will enhance common and school-wide technology applications. A Digital Broadcast systems will be upgraded at the middle level to improve digital and media productions programs.

Page Last Modified: 01/04/2018

6. **Describe how the proposed technology purchases will:**
   > **enhance differentiated instruction;**
   > **expand student learning inside and outside the classroom;**
   > **benefit students with disabilities and English language learners; and**
   > **contribute to the reduction of other learning gaps that have been identified within the district.**

   The expectation is that districts will place a priority on addressing the needs of students who struggle to succeed in a rigorous curriculum. Responses in this section should specifically address this concern and align with the district's Instructional Technology Plan (in particular Question 2 of E. Curriculum and Instruction: "Does the district's instructional technology plan address the needs of students with disabilities to ensure equitable access to instruction, materials and assessments?" and Question 3 of the same section: "Does the district's instructional technology plan address the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum?"

   The proposed purchases will maximize learning opportunities for students at all levels. All projects are closely aligned with the district's technology plan. Teachers from all areas and programs will benefit from the 1:1 learning environment, a priority for the district initiated several years ago. Such efforts ensure that all students regardless of need, socioeconomic status, ability level, or language preference will have equal access to digital tools and resources. As more students are included in a 1:1 learning environment, the district's ability to provide 24-7 learning opportunities and wraparound support increases greatly. The continuum and consistency in the use of digital tools and learning management systems will also be greatly improved. ENL students utilize devices to supplement classroom learning and to be part of technology-delivered tools and resources. Students with disabilities use devices and assistive technologies to ensure they have access to an appropriate education. Depending on their need, these students may be provided with e-textbooks, Chromebooks and/or iPads for communication, FM Systems to amplify sound, timers and self-monitoring software to increase on-task behavior. Students with disabilities and English Language Learners will also benefit from those opportunities listed above but will also have the added benefit of technology that can more easily and readily adapt information and teaching to their particular needs. For example, if a student needs a passage read aloud he/she will not need to wait for an adult to be available and will be able to hear the passage as many times as necessary. ENL students will be able to access content in their native language to more easily assist them with interpretation of difficult concepts that have yet to be mastered. Technology will allow a student's education to truly be personalized.

   Specialized purchases will ensure that students with divergent interests will be served well (e.g., Robotics). Additionally, enhancements to school-wide systems and spaces will provide new models, spaces, and media for large- and small-group instruction. Digital broadcast systems and upgraded large-group and common instructional spaces will allow for extensive integration of programs and provide new opportunities to connect with experts in the field and/or global audiences.

   All proposed improvements to instructional technologies will be made possible and supported by replacement and/or upgrade to our rapidly aging servers. Transition to a virtualized server environment will ensure that our computer network has the capacity and power to complete complex tasks with ease.

7. **Where appropriate, describe how the proposed technology purchases will enhance ongoing communication with parents and other stakeholders and help the district facilitate technology-based regional partnerships, including distance learning and other efforts.**

   The Guilderland CSD has engaged parents in ongoing technology-based communications through Google Apps for Education. All students have active and secured email accounts and most participate routinely in virtual learning environments or managed learning systems such as Google Classroom. The expansion of a 1:1 program as described, will provide greater, if not unlimited, access for parents to such "digital classrooms." Furthermore, all communications from teacher to student and parent will be paperless.

   Guilderland has an ongoing commitment to involve parents and other community members in all aspects of our school community. We regularly host parent workshops to inform stakeholders about curriculum, STEM initiatives, student presentations, etc., etc. Improvements in large groups instruction spaces and digital broadcast systems will greatly enhance our efforts to engage community members and parents.

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Classroom Learning Technology

Page Last Modified: 01/04/2018

8. **Describe the district's plan to provide professional development to ensure that administrators, teachers and staff can employ the technology purchased to enhance instruction successfully.**

   Note: This response should be aligned and expanded upon in accordance with your district's response to Question 1 of F. Professional Development of your Instructional Technology Plan: "Please provide a summary of professional development offered to teachers and staff, for the time period covered by this plan, to support technology to enhance teaching and learning. Please include topics, audience and method of delivery within your summary."

   The Guilderland CSD has a robust professional development plan and program. Our Coordinator for Instructional Technology spearheads planning for professional development on technology applications. She chairs the district' Technology Cabinet which includes Technology Teacher Leaders from all schools. The Teacher Leaders often turnkey professional development/training opportunities in their respective schools. They also serve as instructional coaches whereby one-on-one training is provided directly to teachers. The collaborative and teacher-led model employed by Guilderland has ensured that all teachers have access to direct, ongoing, and embedded PD.

   Additionally, Guilderland has served the entire Capital Region by hosting the Capital Region Google Summit featuring the EdTech team. By hosting, we are able to provide direct and intensive training on some of the most current and exciting instructional technology application. This two-day conference hosted at Guilderland High School has drawn hundreds of attendees from throughout the northeast. Guilderland teachers are often, featured presenters. Google Apps for Education highlighted, but a wide variety of technology-enhance applications are shared during this event. Problem-based learning, digital portfolios, learning management systems, and an array of other topics are presented. Dozens of Guilderland teachers have attended each year.

   Additionally, teachers in Guilderland participate in robust and active summer curriculum programs. In 2016, over 80 summer curriculum projects will be supported by the district. These opportunities are often focused on instructional technologies. The uninterrupted time and opportunity to collaborate with others ensure that technologies are deeply tied to curriculum and enhanced learning.

   In the Guilderland Central School District, our approach to professional development is to make certain that all educators have the best possible skills, content knowledge, and preparation for teaching. The needs of learners in the twenty-first century demand innovative, progressive, and cutting-edge instruction. As such, the quality of our professional development programs is influenced by a variety of factors. The National Staff Development Council recognizes these variables as the essential standards for professional development in education. The standards are Context (learning communities, leadership, and resources), Process (data-driven, evaluation, research-based, design, learning and collaboration), content (Equity, quality teaching, family involvement) Quality professional development is a dynamic and fluid process. If appropriate structures are in place (context), a variety of best practices (processes) are used, and appropriate.

   PD focus areas include, but are not limited to:

   K-2 Teachers Professional development occurs in the building on Google Apps, eDoctrina, Typing Agent, Chromebooks, iPads, iOs applications, and other apps that will support small group and differentiated instruction. -Provided by Coordinator for Instructional Technology, teacher leaders, and conferences.

   3-6 Teachers Professional development to support Google Apps, eDoctrina, digital portfolios, Chromebooks, Typing Agent, and other apps that will support small group and differentiated instruction. Teachers will also be offered opportunities to learn how to use coding and 3D printing to support Google Apps, eDoctrina, digital portfolios, Chromebooks, Typing Agent, and other apps that will support small group and differentiated instruction. Teachers will also be offered opportunities to learn how to use coding and 3D printing to enhance instruction. -Provided by Coordinator for Instructional Technology, teacher leaders, and conferences.

   7-8 Teachers Professional development to support Google Apps, Chromebooks, best practices for 1:1 learning, eDoctrina, and other apps that will support small group and differentiated instruction. -Provided by Coordinator for Instructional Technology, teacher leaders, Instructional Administrators, and conferences.

   9-12 Teachers Professional development to support Google Apps, Chromebooks, best practices for 1:1 learning, e-school and other apps that will support small group and differentiated instruction. -Provided by Coordinator for Instructional Technology, teacher leaders, Instructional Administrators, and conferences.

   Administrators Professional Development to support Google Apps, 1:1 learning, eDoctrina, SchoolTool, IEPDirect, organizational tools, and other data reports and other elevant apps. - Provided by Assistant Superintendent for Curriculum and Instruction, Coordinator for Instructional Technology, Coordinator for Data and Information, and others.

9. **Districts must contact the SUNY/CUNY teacher preparation program that supplies the largest number of the district's new teachers to request advice on innovative uses and best practices at the intersection of pedagogy and educational technology.**

   ☑ By checking this box, you certify that you have contacted the SUNY/CUNY teacher preparation program that supplies the largest number of your new teachers to request advice on these issues.

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Classroom Learning Technology

Page Last Modified: 01/04/2018

9a. **Please enter the name of the SUNY or CUNY Institution that you contacted.**

SUNY Albany

9b. **Enter the primary Institution phone number.**

(518) 442-4007

9c. **Enter the name of the contact person with whom you consulted and/or will be collaborating with on innovative uses of technology and best practices.**

Dr. Jianwei Zhang

10. **A district whose Smart Schools Investment Plan proposes the purchase of technology devices and other hardware must account for nonpublic schools in the district.**

Are there nonpublic schools within your school district?

☑ Yes
☐ No

10a. **Describe your plan to loan purchased hardware to nonpublic schools within your district. The plan should use your district's nonpublic per-student loan amount calculated below, within the framework of the guidance. Please enter the date by which nonpublic schools must request classroom technology items. Also, specify in your response the devices that the nonpublic schools have requested, as well as in the in the Budget and the Expenditure Table at the end of the page.**

Guilderland CSD has consulted directly with representatives from the nonpublic school within the district. The principal of the school was invited to join the district's Smart Schools Investment Plan Advisory Committee. The SSIP created with input from this committee includes appropriate funds for the nonpublic school. They have requested Chromebooks. Requests from the nonpublic school will be made prior to the August 1, 2018 deadline. Loaned Devices will need to be requested by August 1 of each year. The District will be spending $12765 which is more than the calculated allocation of $12078.

10b. **A final Smart Schools Investment Plan cannot be approved until school authorities have adopted regulations specifying the date by which requests from nonpublic schools for the purchase and loan of Smart Schools Bond Act classroom technology must be received by the district.**

☑ By checking this box, you certify that you have such a plan and associated regulations in place that have been made public.

11. Nonpublic Classroom Technology Loan Calculator
The Smart Schools Bond Act provides that any Classroom Learning Technology purchases made using Smart Schools funds shall be lent, upon request, to nonpublic schools in the district. However, no school district shall be required to loan technology in amounts greater than the total obtained and spent on technology pursuant to the Smart Schools Bond Act and the value of such loan may not exceed the total of $250 multiplied by the nonpublic school enrollment in the base year at the time of enactment.
See: http://www.p12.nysed.gov/mgtserv/smart_schools/docs/Smart_Schools_Bond_Act_Guidance_04.27.15_Final.pdf.

	1. Classroom Technology Sub-allocation	2. Public Enrollment (2014-15)	3. Nonpublic Enrollment (2014-15)	4. Sum of Public and Nonpublic Enrollment	5. Total Per Pupil Sub-allocation	6. Total Nonpublic Loan Amount
Calculated Nonpublic Loan Amount	498,723	4,909	122	5,031	99	12,078

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Classroom Learning Technology

Page Last Modified: 01/04/2018

12. **To ensure the sustainability of technology purchases made with Smart Schools funds, districts must demonstrate a long-term plan to maintain and replace technology purchases supported by Smart Schools Bond Act funds. This sustainability plan shall demonstrate a district's capacity to support recurring costs of use that are ineligible for Smart Schools Bond Act funding such as device maintenance, technical support, Internet and wireless fees, maintenance of hotspots, staff professional development, building maintenance and the replacement of incidental items. Further, such a sustainability plan shall include a long-term plan for the replacement of purchased devices and equipment at the end of their useful life with other funding sources.**

☑   By checking this box, you certify that the district has a sustainability plan as described above.

13. **Districts must ensure that devices purchased with Smart Schools Bond funds will be distributed, prepared for use, maintained and supported appropriately. Districts must maintain detailed device inventories in accordance with generally accepted accounting principles.**

☑   By checking this box, you certify that the district has a distribution and inventory management plan and system in place.

14. If you are submitting an allocation for **Classroom Learning Technology** 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
Interactive Whiteboards	0
Computer Servers	0
Desktop Computers	1,868
Laptop Computers	407,790
Tablet Computers	(No Response)
Other Costs	89,065
Totals:	**498,723**

15. **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.**
Please specify in the "Item to be Purchased" field which specific expenditures and items are planned to meet the district's nonpublic loan requirement, if applicable.
NOTE: Wireless Access Points that will be loaned/purchased for nonpublic schools should ONLY be included in this category, not under School Connectivity, where public school districts would list them.
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
Laptop Computers	Dell Chromebook 3189-11.6 inch-Celeron N3060 4GB Ram- 16GB SSD-En Mfg Part # 2NN30 UNSPSC: 43211503	1,145	345	395,025
Other Costs	Chrome OS white glove service	1,145	11	12,595
Other Costs	GOOGLE CHROME MANAGEMENT	1,145	23	26,335

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Classroom Learning Technology

Page Last Modified: 01/04/2018

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be Purchased	Quantity	Cost per Item	Total Cost
	CONSOLE LICENSE, EDUCATION			
Other Costs	Tricaster 410 Production System with Control Surface	1	15,000	15,000
Other Costs	70 inch monitor for control room	2	2,035	4,070
Other Costs	Articulating Wall Mount with 37	2	600	1,200
Other Costs	48 inch confidence monitor	1	555	555
Other Costs	Rolling Cart for Above monitor	1	741	741
Other Costs	22 inch monitors for PCs	3	125	375
Other Costs	Wireless Microphone System with Receiver, Lavalier Microphone, & Bodypack Transmitter	2	395	790
Other Costs	VideoMic Pro Boom Microphone with Micro Boompole and Windbuster Windshield Kit VSGI - Part#: Rode	1	371	371
Other Costs	Large Diaphragm Condensor Studio Microphone with Case & Shockmount for Voiceover	1	360	360
Other Costs	Supercardioid Handheld Condenser Microphone	1	230	230
Other Costs	Omnidirectional Push to Talk Gooseneck Microphone for Talkback System	1	148	148
Other Costs	Round Base Microphone Stand for Above	1	30	30
Other Costs	16 Channel Digital Mixing Console	1	1,111	1,111
Other Costs	8 biamped powered studio monitor	2	236	472
Other Costs	K240 Studio Headphone	2	75	150
Other Costs	4-Person Headset System with Batteries, Charger & Case VSGI - Part#: Eartec	1	780	780
Other Costs	8x8 HDMI Switcher with 4k Support, HDCP2.2	1	1,667	1,667
Other Costs	Progressive Scan 1080p Up-Conversion DVD Player B&H # PADVDS700 MFR #	1	50	50
Other Costs	Analog-SDI Mini Converter for DVD Player VSGI - Part#: Blackmagic Design	1	228	228

Classroom Learning Technology

Page Last Modified: 01/04/2018

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be Purchased	Quantity	Cost per Item	Total Cost
Other Costs	SDI-HDMI Converter for Confidence Monitor	1	105	105
Other Costs	HDMI over Twisted Pair Extender Kit for Teleprompter VSGI - Part#: Liberty	1	289	289
Other Costs	4KCAM Compact Handheld Streaming Camcorder with SDI output	3	2,271	6,813
Other Costs	Remote Lens Control for Above VSGI - Part#: JVC	3	400	1,200
Other Costs	VT-4000 Video Tripod System & Universal Tripod Dolly Kit	4	189	756
Other Costs	Tripod Utility Apron VSGI - Part#: Manfrotto	3	43	129
Other Costs	Hard Case with Foam Interior for Camera	3	133	399
Desktop Computers	Optiplex 5040 Small Form Factor PC with 3.4GHZ Intel i7Processor, Intel HD Graphics 530 Card, 8GB Ram, 500GB Hard Drive	2	934	1,868
Other Costs	Dell Firewire PCI Card	1	36	36
Other Costs	Video Editing Keyboard for Sony Vegas Pro	1	99	99
Other Costs	Shuttle Pro Multimedia Controller	1	100	100
Other Costs	Audio Editing Keyboard for Avid Pro Tools	1	99	99
Other Costs	Optical Trackball Mouse	2	31	62
Other Costs	48 inch monitoring desk	1	1,730	1,730
Other Costs	48 inch monitoring desk extension bay	1	1,495	1,495
Other Costs	Middle Atlantic- Articulating Keyboard Shelf for Above, Pepperstone Finish, Includes Wrist Rest	2	152	304
Other Costs	Middle Atlantic- Articulating Under-Desk CPU Mount	2	163	326
Other Costs	Middle Atlantic- 12RU Equipment Rack for server and related equipment VSGI - Part#: Middle Atlantic	1	908	908
Other Costs	3x1 Monitor Mount	1	601	601
Other Costs	Studio Monitor Stand, 1 Pair	1	99	99
Other Costs	Pneumatic Lift Stool with Back, Height	4	206	824

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Classroom Learning Technology

Page Last Modified: 01/04/2018

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be Purchased	Quantity	Cost per Item	Total Cost
	Adjustable 22- 32			
Other Costs	Wallplate with Camera & Microphone Connections for Production Room Party Animal - Part#: VSGI	1	324	324
Other Costs	Cables & Connectors (Lot)	1	4,348	4,348
Other Costs	Rigging & Hardware (Lot)	1	761	761
Laptop Computers	NONPublic Dell Chromebook 3189-11.6 inch- Celeron N3060 4GB Ram-16GB SSD-En Mfg Part # 2NN30 UNSPSC: 43211503	37	345	12,765

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Pre-Kindergarten Classrooms

Page Last Modified: 10/19/2016

1. **Provide information regarding how and where the district is currently serving pre-kindergarten students and justify the need for additional space with enrollment projections over 3 years.**

(No Response)

2. **Describe the district's plan to construct, enhance or modernize education facilities to accommodate pre-kindergarten programs. Such plans must include:**

- Specific descriptions of what the district intends to do to each space;
- An affirmation that pre-kindergarten classrooms will contain a minimum of 900 square feet per classroom;
- The number of classrooms involved;
- The approximate construction costs per classroom; and
- Confirmation that the space is district-owned or has a long-term lease that exceeds the probable useful life of the improvements.

(No Response)

3. **Smart Schools Bond Act funds may only be used for capital construction costs. Describe the type and amount of additional funds that will be required to support ineligible ongoing costs (e.g. instruction, supplies) associated with any additional pre-kindergarten classrooms that the district plans to add.**

(No Response)

4. **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
(No Response)

5. If you have made an allocation for **Pre-Kindergarten Classrooms,** 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
Construct Pre-K Classrooms	(No Response)
Enhance/Modernize Educational Facilities	(No Response)
Other Costs	(No Response)
Totals:	**0**

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.

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Pre-Kindergarten Classrooms

Page Last Modified: 10/19/2016

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

Replace Transportable Classrooms

Page Last Modified: 10/19/2016

1. **Describe the district's plan to construct, enhance or modernize education facilities to provide high-quality instructional space by replacing transportable classrooms.**

(No Response)

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
(No Response)

3. **For large projects that seek to blend Smart Schools Bond Act dollars with other funds, please note that Smart Schools Bond Act funds can be allocated on a pro rata basis depending on the number of new classrooms built that directly replace transportable classroom units.**

If a district seeks to blend Smart Schools Bond Act dollars with other funds describe below what other funds are being used and what portion of the money will be Smart Schools Bond Act funds.

(No Response)

4. If you have made an allocation for **Replace Transportable Classrooms**, 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
Construct New Instructional Space	(No Response)
Enhance/Modernize Existing Instructional Space	(No Response)
Other Costs	(No Response)
Totals:	**0**

5. **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
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

Smart Schools Investment Plan - 2016-17 Version (Original) - SSIP classroom

High-Tech Security Features

Page Last Modified: 10/19/2016

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.**

   (No Response)

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
(No Response)

3. **Was your project deemed eligible for streamlined Review?**

   ☐ Yes
   ☐ No

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

Name	License Number
(No Response)	(No Response)

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)	(No Response)
Electronic Security System	(No Response)
Entry Control System	(No Response)
Approved Door Hardening Project	(No Response)
Other Costs	(No Response)
Totals:	**0**

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
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)