



# SMART SCHOOLS INVESTMENT PLAN

Bellmore-Merrick Central High School District

District Allocation = \$2,195,440



## CLASSROOM TECHNOLOGY:

### Whiteboards

SMART Refresh Program #SR-40010546

SMART Board Interactive Flat Panel 6065 – SPNL-6065

Description	Quantity	Price	Total
SMART Board Interactive Flat Panel 6065 – SPNL-6065	165	\$3,329.00	\$549,285.00
25ft HDMI Cable	165	\$40.00	\$6,600.00
Large Fusion Fixed Wall Display Mount	155	\$112.00	\$17,360.00
Overboard, Floor/Wall Mount	155	\$318.00	\$49,290.00
Large Fusion Manual Height Adjustable Mobile Cart	13	\$1,200.00	\$15,600.00
Installation - Teq	155	\$468.00	\$72,540.00
		<b>Total:</b>	<b>\$710,675.00</b>

### **Rationale:**

The International Society for Technology in Education (ISTE) Standards for Administrators (ISTE Standards•A) are the standards for evaluating the skills and knowledge school administrators and leaders need to support digital age learning, implement technology, and transform the education landscape. The ISTE Standards for Teachers (ISTE Standards•T) are the standards for evaluating the skills and knowledge educators need to teach, work, and learn in an increasingly connected global and digital society. ISTE Standards for Students (ISTE Standards•S) are the standards for evaluating the skills and knowledge students need to learn effectively and live productively in an increasingly global and digital world. According to ISTE, “As technology integration continues to increase in our society, it is paramount that teachers possess the skills and behaviors of digital age professionals. Today's students need to be able to use technology to analyze, learn and explore. Digital age skills are vital for preparing students to work, live and contribute to the social and civic fabric of their communities.”

The Bellmore-Merrick Central High School District continues to advance its efforts in creating a district-wide digital age learning culture along with the implementation of comprehensive technology integration designed to increase student achievement, promote excellence, and achieve Cyber Citizenship.

The district has an inventory of 165 out-of-life Smart UF projectors throughout its schools. The Smart UF 45, 55 and 65 projectors are no longer available. In addition, there exist 160 Smart Boards throughout the district exceeding ten years in age. The SMART Interactive Flat panel 6065 is a long term investment with expected life of approximately 14 years.

## Desktop Computers

HP Elitedesk 800 G1 Small Form Factor

Description	Quantity	Price	Total
Configurable-HP Elitedesk 800 G1 Small Form Factor-C8N26AV	479	\$382.00	\$182,978.00
HP DisplayPort to VGA Adapter	379	\$11.00	\$4,169.00
HP Display Port to HDMI Adapter BP937AA	110	\$23.00	\$2,530.00
HP EliteDisplay E201 20-inch LED Backlit Monitor C9V73AA#ABA	479	\$97.00	\$46,463.00

Total:	<b>\$236,140.00</b>
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### **Rationale:**

40% of all desktop computers are over five years old in the Bellmore-Merrick Central High School district. A District-wide computer refresh program is essential for high quality instruction, continuous improvement, and effective communications in multimedia learning environments and specialized content-area instructional labs including PLTW, Virtual Enterprise, Technology, Music, Art, Research, Library Media Center, World Languages, Math Computer Programming, Guidance, and Content Area Department Office clusters.

## Tablet Computers

Chromebooks – Samsung 2

Description	Quantity	Price	Total
Samsung Chromebook 2 11.6 16GB 4GB Black	510	\$294.39	\$150,138.90
Bretford Netbook32 Cart	16	\$1,471.60	\$23,545.60
ACAD Google Chrome OS MGT LIC+SUP 5Y	510	\$24.99	\$12,744.90

Total:	<b>\$186,429.40</b>
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## Tablet Computers

iPad Air

Description	Quantity	Price	Total
iPad Air Wi-Fi 32 GB w 2-Year AppleCare +	250	\$487.10	\$121,775.00
STM DUX CASE iPad Air	250	\$29.95	\$7,487.50
Bretford 30 Notebook Cart	6	\$1,564.88	\$9,389.28

Total:	<b>\$138,651.78</b>
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**Rationale:**

The district has an inventory of 148 out-of-life iPad 2's. Bellmore-Merrick Central High School District requires multiple Chromebook and iPad carts to support and supplement instructional and curricula initiatives including the literacy program Achieve 3000, Google Docs/Drive and Google Classroom, BMCHSD Bring Your Own Device (BYOD)/Mobile Learning Device (MLD), Project Based Learning, and Academy of Math program.

**3D Printing in the STEAM classroom:**

Solidoodle Workbench 3D Printers

Description	Quantity	Price	Total
Solidoodle Workbench 3D Printer -SD-3DWP	3	\$1,249.00	\$3,747.00
Natural Filament - SD-ABS-1	12	\$43.00	\$516.00

<b>Total:</b>	<b>\$4,263.00</b>
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**Rationale:**

In Bellmore Merrick, we have adopted a “STEAM” philosophy to promote the integration of the Arts into our technology –based curricula in the areas of Engineering and Design. Our Science, Art, and Technology teachers are revising and developing courses which foster creativity and innovation to expand and build upon the fundamental core concepts described in the NYS Standards for Math, Science, and Technology as well as the NYS Art education standards. In upcoming District curriculum writing projects, our teachers will develop units of instruction that include the use of 3D printers to support their curricular goals by promoting student driven, hands-on inquiry projects in the form of engineering challenges and design briefs. The incorporation of 3D printer technology into our engineering and design classes will be a game changer in the learning environment. Students will be engaged with these projects from the planning stages all the way through the development of a product or prototype. Introducing skills and experiences that inspire students to choose STEAM careers is vital to developing graduates ready for college and careers in the 21st Century.

## Video Surveillance

### Video Surveillance Additions

#	Estimate #	Site	Summary	Price
1	32012	Central Administration	2 DVRs w/ 50 Cameras	\$ 64,159.00
2	32011	Grand Avenue Middle School	2 DVRs w/ 67 Cameras	\$ 75,202.00
3	32010	Merrick Avenue Middle School	2 DVRs w/ 67 Cameras	\$ 74,802.00
4	32008	W.C. Mephram High School	3 DVRs w/ 80 Cameras	\$ 89,867.00
5	32007	Sanford H. Calhoun High School	4 DVRs w/ 109 Cameras	\$ 123,984.00
6	32005	JFK High School	4 DVRs w/ 104 Cameras	\$ 116,308.00
Quantity 25	OS6450-P48 Gigabit Ethernet Chassis, 10 Gigabit SFP + Stacking Module @\$1,753.56			\$ 43,839.00
Quantity 25	Performance Software License - 2 Fixed SFP+ Ports @\$573.03			\$ 14,325.75
			<b>Total:</b>	<b>\$ 602,486.75</b>

### Rationale:

The Bellmore-Merrick Central High School District will purchase additional security cameras, hardware and installation from the OGS vendor (Intralogic Solutions) who installed the district's existing security camera system. The additional video surveillance cameras will enhance our existing security system by allowing us to further secure the facility for the safety of the students and staff.

## Computer Servers:

### Upgrade Wireless Access Points

Description	Quantity	Price	Total
50 AP Adder License for the 5508 Controller (eDelivery)	1	\$11,822.25	\$11,822.25
SMARTNET 8x5xnbnd 50 AP Adder License for the 5508	1	\$1,955.80	\$1,955.80
AIR-CAP37021-AK9	125	\$822.25	\$102,781.25
SMARTNET 8x5xnbnd 802.11ac Ctrlr AP 4x	125	\$42.00	\$5,250.00

<b>Total:</b>	<b>\$121,809.30</b>
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### Rationale:

In July 2014, The Bellmore-Merrick Central High School District implemented the installation and configuration of a Cisco Wireless system in the high schools and the relocation and configuration of the existing Aruba Wireless hot spots to the middle schools and alternative program contracted by Core BTS, Inc.

Service Set Identifiers have been implemented for the following:

- BMCHSD-Guest: (BYOD, non-district devices)
- BMCHSD-Device: (District devices – Non-Windows –IE: Chrome Books, Apple TV’s, iPads, etc.)
- BMCHSD: District devices (Windows)

The district will upgrade the Aruba controller and access points to a Cisco Wireless platform in the middle schools and alternative program building. The upgrade to a Cisco platform throughout the district will afford the opportunity to manage devices along with instructional initiatives including Bring Your Own Device/Mobile Learning Device policy.

**Computer Servers:**

VMWare View Upgrade

Description	Quantity	Price	Total
ACD VSPHERE 6 ESSLPL KIT 3 HOSTS MAX 2 PROCS PER HOST	1	\$2,527.88	\$2,527.88
ACD PROD SNS VSPHERE 6 ESSLPL KIT	1	\$1,115.48	\$1,115.48
VNX 400GB FAST VP SSD 25X2.5 DPE/DAE UPG	8	\$5,709.95	\$45,679.60
3M MM FIBRE CABLE LC-LC	8	\$134.27	\$1,074.16
PREMIUM SW SUPPORT	1	\$196.47	\$196.47
VNXB OE PER TB PERFORMANCE UPGRADE	4	\$525.04	\$2,100.16
VNXB 4 PORT 8G FC IO MODULE PAIR-UPG	1	\$3,727.68	\$3,727.68
CORE PROFESSIONAL SERVICES	1	\$8,880.00	\$8,880.00

<b>Total:</b>	<b>\$65,301.43</b>
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**Rationale:**

The upgrade to VMWare View will provide teachers with a consistent educational technology platform throughout the district. It would provide the opportunity for a centralized and manageable desktop platform that can incorporate thin client as well as legacy computing platforms. This will extend the life of computer equipment and greatly enhance the district’s digital age learning culture.

District Allocation = **\$2,195,440**

Total Classroom Learning Technology / High-Tech Security Sub-Allocation = **\$2,065,756**

Unallocated Funds = **\$129,684**

## Professional Development

The Bellmore-Merrick Central High School District has implemented a Technology Integration Mentor program dedicated to improving the capacity of all teachers and staff so that they may effectively integrate technology into the curriculum, their instructional practices, and their data-driven decision-making. In addition, the district has implemented a Professional Development Academy committed to providing ongoing courses offerings to staff in instructional technology and all content areas. A 2015 Summer Professional Development Academy has also been created by the district to offer staff a variety of 15 hour/in-service credit professional development workshops on technology integration strategies. Professional development offerings in the area of instructional technology are aligned to ISTE, Common Core, and NYS PD standards.

The district's instructional technology initiatives include, but are not limited to:

- Bring your Own Device/Mobile Learning Device
- Google Docs/Drive/ Classroom
- Interactive Board /SMART Notebook Integration
- Edmodo
- Weebly Pro Campus Edition
- Flipped Classroom
- Digital Age Classroom

The Technology Integration Mentor Program, based upon the Peer Mentoring Model, has been developed and implemented by the Director of Instructional and Technology Services, Technology Mentor Coordinators, and Technology Integration Mentors within the five school buildings.

All Technology Integration Mentors demonstrate within their department or grade level an advanced knowledge of technology, and incorporate technology into their instructional program and classroom practices. Their responsibility includes providing grass root support for teachers by conducting technology integration workshops, modeling best practices, coaching and facilitating collegial circles and user groups, preparing and sharing lesson plans, maintaining a building Technology Mentor website, creating quarterly technology newsletters, nominating teachers for a monthly Technology Integration Recognition Award and other resources relevant to their building or department's needs and interests.

In addition, the district has introduced the "catalog" of Summer Professional Development in-service courses for Bellmore-Merrick teachers. In a "summer learning camp" format, the district will be offering a variety of 15-hour/1 in-service credit courses for all teachers in the areas of instructional technology, advanced placement, and collaborative inclusion practices. The following includes the instructional technology course offerings:

- Google Docs/Drive/Classroom -Certification through Teq
- Interactive Board Usability - Beginner
- Interactive Board Usability Advanced - Digital Teacher Certification through Teq
- Weebly Pro Campus
- Flipped Classroom