

## Technology Update - 2/13/2020

The following is a summary of the work that has happened as part of the technology portion of the 2014 general obligation bond. The technology portion of the bond is broken into 8 projects, each project with its own budget and timeline. Some of the projects were scheduled to start immediately, while others were not scheduled to begin until the 2017-18 school year.

### Google Documents Created (January 14th - February 14th)

#### Pre-Bond: 2014

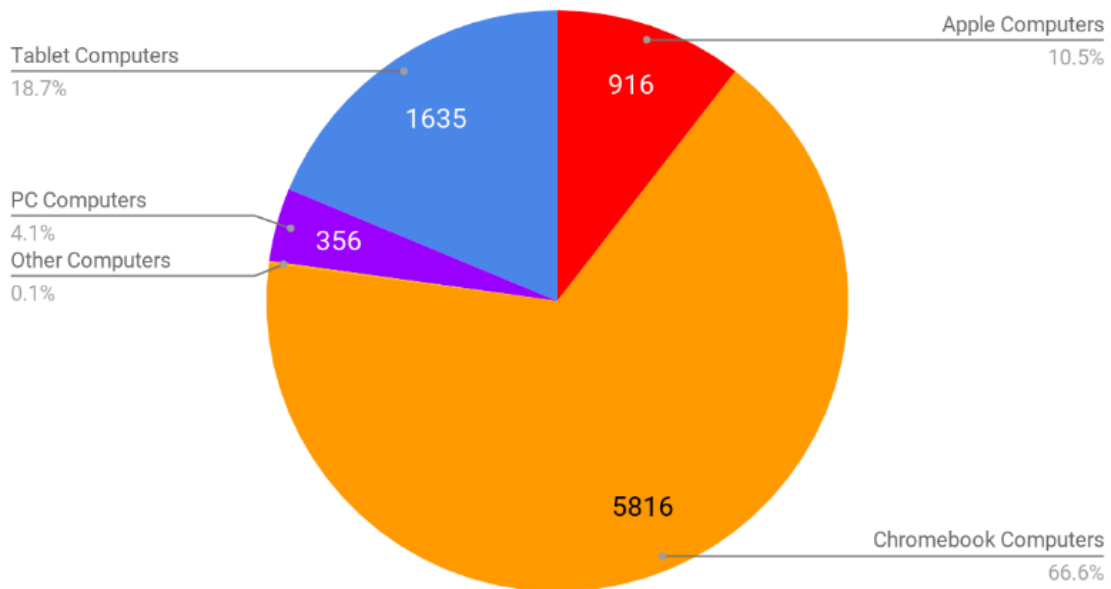
7800 Documents

#### Post-Bond: 2020

134,830 Documents

## SPS Student Devices

Total Student Devices - 8735



## Core Network Equipment (2015-2019)

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<b>Project Scope</b>	This project provides for the upgrade of the core network infrastructure which includes the computing center (located at the EMC Building) as well as all of the district schools including A3. These upgrades (in most cases wholesale replacements) set the stage for increased use of computers in the schools with expanded Internet bandwidth, building-wide wireless connectivity, quality of service (support for unified communications), and power over Ethernet (PoE).
<b>Work Completed</b>	Network replacements have been completed at all district facilities.
<b>Project Status</b>	100% Completed

## Enterprise Wireless Network (2015-2018)

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<b>Project Scope</b>	This project provides for high-speed wireless access in all learning spaces at all district schools, including A3. In the majority of our schools, this work will be completed at the same time that we are upgrading the core network equipment.
<b>Work Completed</b>	Wireless network replacements have been completed at all district facilities.
<b>Project Status</b>	100% Complete

## Central Server Infrastructure & Storage (2015-2021)

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<b>Project Scope</b>	Provide up-to-date, high-capacity server and storage equipment to support computing within the district.
<b>Work Completed</b>	Performed upgrades to the district email servers, mass storage devices, redundant high speed switches, updated backup storage, backup tape storage unit, replacement firewall and email archiving system.
<b>Project Status</b>	50% Complete: \$346,000 of bond funds remaining  Upgrades to our virtual server hardware, storage area network and email infrastructure planned for the summer of 2021.

## Unified Communications (2016-2020)

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<b>Project Scope</b>	Work in this area will allow the district to deploy a common districtwide IP based communications system. This system will provide traditional telephone services, voicemail and integration to the Intercom system.
<b>Work Completed</b>	Wireless network replacements have been completed at 22 of the 22 facilities identified for upgrade.
<b>Project Status</b>	95% Complete: \$73,000 of bond funds remaining  New VoIP phone system has been installed at all facilities. Upgrades to infrastructure planned to get phones/intercom installed in teaching spaces previously unreachable. (i.e. SHS Weight Room, external ringers in loud classrooms)

## Classroom Equipment (2015-2021)

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<b>Project Scope</b>	The scope of this work is to provide ceiling or wall mounted projectors, quality projection screens, and sound systems in every classroom in the district. In addition to the projection systems, the project will provide document cameras for those classrooms that do not have one.
<b>Work Completed</b>	All traditional classrooms in the district now have projection devices installed. Briggs Middle School and Thurston Middle School have a projection and sound system installed in the gymnasium.
<b>Project Status</b>	90% Complete: \$170,000 of bond funds remaining  Upgrades to the pre-bond projection systems in the elementary school libraries planned in the summer of 2020. Additional purchase of some Voice Amplification Systems to be purchased with remaining funds.

## Professional Technical Technology (2015-2016)

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<b>Project Scope</b>	Provide equipment in support of the CTE programs at the comprehensive high schools that are representative of equipment used in the industry and vocational education programs.
<b>Work Completed</b>	THS - Wide belt sander, laser cutter, three CNC router tables, three metal lathes, IronWorker metal shear, retro-fit of horizontal milling machine, and Mojo 3-D printer.  SHS – Wide belt sander, two brake lathes, eight kilns, and six metal lathes.
<b>Project Status</b>	100% Complete

## Staff Computer Devices (2015–2020)

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<b>Project Scope</b>	This project was designed to provide a one-time refresh for computers used by school-based district staff.
<b>Work Completed</b>	We have replaced 674 certified staff computer devices and 170 classified staff devices.
<b>Project Status</b>	<p>90% Complete: \$125,000 of bond funds remaining</p> <p>We continue to replace devices as needed. We are currently replacing staff computers that were purchased in 2014-15 and anticipate running out of staff bond funds at the beginning of the 2020-2021 school year.</p> <p>Staff devices are expected to last 6 years with an annual replacement cost of ~\$250,000/year.</p>

## Student Computer Devices (2015-2021)

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<b>Project Scope</b>	This project is designed to create a 2:1 student to computer ratio, of up-to-date computer devices in each classroom in the district. The 2014 General Obligation Bond was initially broken into five different line items. The five categories included Library Computer Devices, Lab Computer Devices, Testing Computer Devices, Student Computer Devices, and E-Readers.
<b>Work Completed</b>	We have installed a total of 7249 student computer devices. These devices have been distributed among the schools in response to proposals submitted by the schools as well as to replace aging lab, library and testing machines.
<b>Project Status</b>	97% Complete: \$2,495,000 of bond funds remaining

Due to the heavy adoption of Chromebooks at our school's reduced the anticipated cost of student devices from \$750/device to \$400/device.

Our first round of student devices purchased in 2015 will no longer be supported by the vendor starting this summer. This will prevent the devices from receiving updates that may be needed to run state assessment software and classroom curriculum. Remaining bond student device funds will be used to replenish staff and student device proposals (\$740,000/year) through the summer of 2022.

To simplify the distribution and accounting for student computer devices, we have lumped all five of the categories of bond-funded computer devices into a single category we call Student Computer Devices. We then developed a student-to-computer ratio for elementary, middle, and high schools. To create these ratios, we factored in the number of teachers, lab requirements, testing requirements, library configuration, and support requirements for district initiatives such as the i-Ready math curriculum adoption. The end result was the following ratios:

- Elementary schools: 1.4 students per student computer device
- Middle Schools: 1.3 students per student computer device
- High Schools: 1.2 students per computer device

Please note that although the overall ratio at each level has been adjusted, the target classroom ratio remains 2:1 for the district.

## Staff & Student Device Replacement Lifecycle Costs

	Student Devices General Fund Allocation	Staff Devices	Student Devices	Deficit	Bond Funds Remaining	Tech Funds
2020	\$200,000	\$250,000	\$740,000	-\$790,000	\$2,564,671	\$1,146,957
2021	\$200,000	\$250,000	\$740,000	-\$790,000	\$1,774,671	\$1,646,957
2022	\$200,000	\$250,000	\$740,000	-\$790,000	\$984,671	\$1,646,957
2023	\$200,000	\$250,000	\$740,000	-\$790,000	\$194,671	\$1,051,628
2024	\$200,000	\$250,000	\$740,000	-\$790,000		\$261,628
2025	\$200,000	\$250,000	\$740,000	-\$790,000		\$0

