



New State Standards

Contemporary Classrooms



Modern Methods

2003/2004 District Technology Budget

Marc Epstein, District Technology Director

Great Neck Public Schools

July 1, 2003

Table Of Contents

Technology Plan Update: Years 1-9.....	2
2003/2004 Technology Budget Overview.....	3
District Technology Budget.....	4
Secondary Technology Budget.....	4-5
Elementary Technology Budget.....	6
Networking and Telecommunications.....	7
Future Technology Needs.....	8

Board of Education

Lawrence R. Gross, President

Judi Bosworth, Vice-President

Donald L. Ashkenase

Barbara Berkowitz

Fran Langsner

Administration

William A. Shine, Superintendent of Schools

Ed Groshans, Deputy Superintendent of Schools

Jack Kamins, Assistant Superintendent, Special Education and Psychological Services

Mary A. Bonner, Assistant Superintendent for Instruction

Technology Plan Update: Years 1-9

The Board of Education adopted our first Technology Plan nine years ago. Since then, \$4,100,000 has been spent on school technology enhancements at the district level. The following list highlights our major achievements thus far:

District-Wide

- The expansion of district-wide technology staff to include a director and 4.8 computer repair technicians.
- The institution of a Technology Academy Staff Development Program for teacher training.
- The installation of electrical panels and outlets funded by capital and E-Rate monies to support technology.
- The implementation of networking funded by the bond issue to distribute Internet access to all classrooms.
- The creation and expansion of a Wide Area Network (WAN) for district-wide Internet access.
- The launch and expansion of our official district Internet Web site at www.greatneck.k12.ny.us.
- The availability of Internet e-mail accounts for staff members to communicate within and beyond the school.
- The automation of our elementary and secondary libraries with Follett and Dynix Scholar online catalogs.
- The purchase of computer projectors and NetTV monitors for multimedia presentations in classrooms.
- The upgrade of our District TV Studio with digital video editing systems and other upgraded equipment.
- The purchase of Palm PDAs for administrators to improve professional productivity and model technology use.
- The purchase of a classroom set of Palm PDAs for trained teachers to pilot for instructional activities.

Elementary

- The addition of elementary staff developers to help teachers integrate technology in their classrooms.
- The retraining of three Industrial Arts teachers and one IPI teacher to become computer teachers.
- The installation of networked Computer Instructional Centers and file servers in each school.
- The development and correlation of an elementary computer curriculum to national technology standards.
- The expansion of classroom technology with 3-5 networked computers, a printer and a large monitor.
- The use of laptops as presentation stations for classroom demonstrations and multimedia projects.
- The use of scanners and digital cameras to enhance multimedia presentations with photographs.
- The use of digital camcorders and video editing software to create video-based student projects.

Secondary

- The implementation of servers which allow students and staff to access their files from any school computer.
- The ongoing upgrade of computer centers, business labs and multimedia centers in each school.
- The development and implementation of a secondary school computer curriculum framework.
- The creation of ScanTek modular technology learning labs at North Middle, South Middle and South High.
- The installation of Global Communication Centers for high school foreign language instruction.
- The creation of science labs with computer-based probes for data analysis at South Middle and North High.
- The introduction of an electronic music curriculum with MIDI synthesizers in each school.
- The creation of a high school computer repair, A+ and Microsoft certification program.
- The distribution of a laptop computer to every Village School student as an integral tool for learning.
- The purchase of a wireless student laptop cart in each school for use in special education classes.
- The piloting of handheld e-book reader devices in high school libraries to promote reading in new ways.

2003/2004 Technology Budget Overview

Thanks to the wonderful support of the administration, the Board of Education and the community, \$450,000 has been allocated in the 2003/2004 District Technology Budget and \$304,214 has been set aside by the schools for computer assisted instruction. Other district expenditures to support technology in our schools include approximately \$750,000 of E-Rate monies for electrical upgrades at North High, South Middle and South High and \$1,000,000 of bond issue funds for network wiring at our elementary and secondary schools. Staffing for technology includes a technology director, computer teachers, computer coordinators, computer teaching assistants, technology staff developers, and computer repair technicians for technical support services.

At the elementary level, 74 desktops and 25 laptops will be added so that every 1st-5th grade classroom has five current model computers that are networked and connected to the Internet, while every Kindergarten and Special Education classroom has three computers. Each K-2 classroom will have its color inkjet printer replaced with a new model this year, completing a printer upgrade that began with the intermediate grades last year. 27 additional elementary classrooms will receive a mounted, 34" NetTV monitor or projector along with a laptop for demonstrations and multimedia presentations. The Kennedy library will be upgraded with a new server and seven desktop PCs, continuing our annual upgrade of elementary library research centers. Parkville will have network wiring installed, which means that every classroom in every school in Great Neck has broadband Internet access.

At the secondary level, North Middle is implementing a new ScanTek Lab as an upgrade to their technology education program. South Middle is upgrading a computer center and distributing more teacher presentation stations to classrooms. North High is implementing a wireless laptop cart for library and departmental use. South High is upgrading a business lab and their library with new desktop PCs. The Village School is adding a few more notebook computers to their program that provides a wireless laptop to every student at the school.

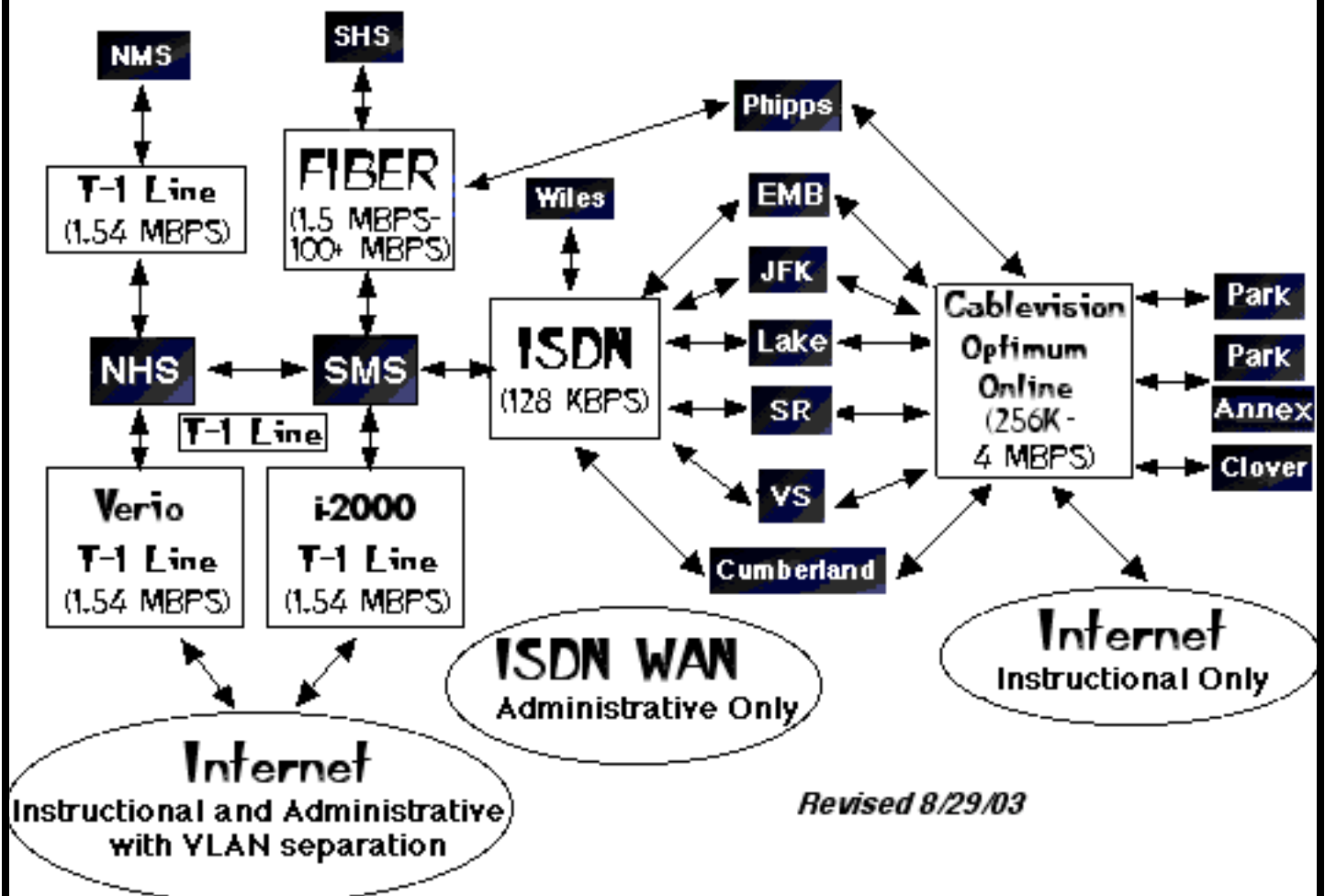
We continue to pilot several portability initiatives throughout the district. Kindergarten classrooms are trying out LeapFrog LeapPads, portable electronic devices for developing primary literacy and early reading skills. High School libraries are loaning out ebook readers, handheld electronic devices that contain digital versions of printed books which are downloaded onto the reader from the Internet. The ebook device can change the orientation and size of the text, facilitate note-taking, and has bookmarking and highlighting capability. Secondary special education classrooms are using wireless laptop carts to "push-in" technology for classroom instruction. Administrators are now entering their second year with handheld Palm PDAs for professional productivity, and a class set of Palm PDAs is also available for teachers to train with and borrow for use in their classroom.

Having met with administrators, librarians, computer specialists and school-based technology committees, I am confident that the priorities set forth in this technology budget reflect a consensus of how to apply our funds to meet the greatest instructional needs of our students. With a strong technology infrastructure, a comprehensive support system, an ongoing upgrade plan and targeted curricular initiatives, this budget provides our schools with a variety of technological tools to meet new state standards and support academic and creative endeavors.

Networking and Telecommunications

Significant resources have been invested over the past few years to develop a telecommunications infrastructure that provides connectivity between and among each of the schools in our district and the outside world. This infrastructure, or Wide Area Network (WAN), consists of ISDN lines, high-speed T-1 lines, and Cable lines that connect our five elementary schools, five secondary schools, two administrative buildings and two adult learning centers to each other and to the Internet. Approximately \$1 million was allocated in the 1998 bond issue to install Local Area Networks (LANs) in each of our eight elementary and secondary schools. This includes 2-4 wiring closets, category 5 copper cable drops for data, coaxial cable drops for future video distribution, and fiberoptic cable drops for future data networks. The networking of our four secondary schools was completed in 2000/2001 and our elementary school LANs were completed in 2002/2003.

A WAN upgrade was also completed to support the hundreds of additional computers that were added to the network. Speed, or bandwidth, was a crucial issue for performance in a large network such as the one we were building in Great Neck. Two T-1 lines, one in North High and one in the South complex, connect us to the Internet. Internal T-1 lines connect North High to the South complex and North High to North Middle, providing us with a redundant system. Our four elementary schools, as well as Cumberland, Clover Drive, Parkville and the Village School receive direct Internet access through Cable connections, while some also maintain ISDN lines for internal WAN communications. The diagram below illustrates our WAN design for 2003/2004 and beyond:



Future Technology Needs

Many of our long-term infrastructure and hardware goals have recently been achieved, including the networking of all of our schools, the upgrading of our Wide Area Network for broadband Internet access, the electrical upgrade of North High, South Middle and South High, and the 3-5 computer clusters in our K-5 classrooms. During the upcoming school year, we will continue to replace our oldest model computers, we will continue with our plan to mount large screen monitors or projectors in every classroom, we will open a ScanTek Lab at North Middle, we will introduce a Wireless Laptop Cart at North High, and we will continue to pilot portable electronic devices like e-book readers, wireless laptops, and Palm PDAs.

Looking to the future, technology applications will continue to evolve along with innovations in the field that address New York State learning standards and assessments. Listed below are technology needs to be considered for future budget allocations:

- **Expand Classroom Display Devices** - Continue to purchase and mount 34" NetTV monitors or projectors in classrooms to facilitate software demonstrations, multimedia presentations, and Internet-based lessons.
- **Redefine The Five Computer Classroom Model** - Provide additional classrooms with a laptop computer with video out capability to serve as a teacher presentation station for added flexibility, portability and functionality.
- **Expand Handheld Technology** - Expand the availability of light, portable and wireless technology to students and teachers, including wireless laptop carts, eBook Readers, and PDAs.
- **Implement A Video Distribution System** - Investigate and pilot a video distribution system at the South complex that replaces the existing obsolete closed-circuit system, distributes cable TV programming into classrooms, and automates access to videos and DVDs.
- **Broaden Technology Integration** - Correlate technology activities to state assessments and learning standards and incorporate new technology innovations into the K-12 curriculum.
- **Expand Administrative Computing** - Continue to computerize administrative tasks such as school report cards, applicant tracking systems, and home-school communications to save time and improve productivity.
- **Prioritize Staff Development Needs** - Encourage greater participation in technology staff development courses, continue to revise offerings to meet emerging teacher training needs, and maximize the availability of technology staff developers in our district.