

**City of New Port Richey Public Library**  
*Inspiring Innovation, Igniting Transformation*



2017-2022 Long Range Plan

**Library Vision:**

The City of New Port Richey stands out in west central Florida as a home where families and businesses thrive. Community collaboration and lifelong education are achieved as the library works with other city departments to contribute to the well being of citizens of all ages. The New Port Richey Public Library cultivates a collaborative community open to the free exchange of ideas, where education, research, creativity, innovation, and entrepreneurship flourish.

**Library Mission:**

The New Port Richey Public Library transforms lives with a curriculum that improves literacy, engages community, advances knowledge and sparks creative expression.

Library curriculum includes participatory classes, individualized research assistance, innovative technology, relevant resources, and inspiring experiences that measurably empower the community.

**Core Values:**

The City of New Port Richey's Public Library, to ensure best practices for the community, follows Florida Statutes Chapter 257, which sets forth the operating rules for public libraries in Florida, the Florida Library Association's Outcomes and Standards for Public Libraries,

and the policies and statements of the American Library Association. Staff adhere to the core values of librarianship: access, confidentiality, privacy, democracy, diversity, education and lifelong learning, intellectual freedom, preservation, the public good, professionalism, service, and social responsibility, as expressed in the Library Bill of Rights, the Freedom to Read statement, and the ALA Policy Manual. Four core values illuminate the ethics behind these efforts.

#### Education

The New Port Richey Public Library is committed to improving the degree of literacy, knowledge and information of our community. The library values continuing professional development and encourages ongoing training in the latest technologies. The library provides access to information tools that enable community members to evaluate and use information as an educated electorate.

#### Equity

The New Port Richey Public Library provides equitable service to all with an accessible facility and diverse collection representative of various viewpoints. Through Books by Mail, off-site workshops and events, and Internet access, the library provides outreach services to those who cannot visit in person. The library provides equal access to information, resources, and services.

#### Intellectual Freedom

The New Port Richey Public Library values diversity and the open exchange of information and ideas that represent differing viewpoints. The library protects members right to know and read, and the library does not disclose personal information including what is queried or borrowed.

#### Engagement

The New Port Richey Public Library fosters an environment that encourages members to explore new ideas, engage in dialogue with other community members and organizations, and collaboratively find innovative solutions to meet the changing needs of the city.

#### Methodology:

The 2017-2022 Long Range Plan for Library Service provides a practical and optimistic blueprint for a state of the art library with resources that meet our city's needs. The plan is an undertaking of librarians, paraprofessionals, Library Advisory Board, Friends of the New Port Richey Public Library, library partners and citizens. This document illustrates the combined values, goals, and objectives for the library while serving as a guide for the future enhancement and expansion of library services, staffing and facility.

The library was evaluated using the Florida Public Library Outcomes & Standards criteria and the EDGE Toolkit, a product funded for the Urban Libraries Council by the Bill & Melinda Gates Foundation. The Annual Plan of Service addresses goals for improvement including ADA, technology, staffing, hours, collection, and funding.

Organizations and their members:

NPR Public Library Foundation

The Foundation actively seeks major funding for substantial projects.

Chair, Joan Nelson Hook, Esq.

New Port Richey Library Advisory Board

The Library Advisory Board approves and advises on specific policy changes and acts as a liaison to City Council.

Chair, Joan Nelson Hook, Esq.

Carol Casey

Dianne Ayers

Rose Mohr

Elizabeth Harth

Mark A. Vandenbroek

Friends of New Port Richey Library

The Friends independently advocate and fundraise on behalf the library.

President, Carol Casey

Vice-President, Bob Langford

Secretary, Jean LeFebvre

Treasurer, Pat Jones

Joan Nelson Hook, Esq.

Library Staff Leadership

Library Director, Andrea Figart

Education & Research Librarian, Stephanie Jones

Youth Education Librarian, Jessica Meredith

Community Education Librarian, Kayla Kuni

## History

As the New Port Richey Public Library approaches its 100th birthday on December 22, 2019, it remains true to its founding role as “The People’s University,” and long rich history of helping all members learn, grow and prepare for the next chapter of their lives, regardless of age, socioeconomic status, race, political affiliation, gender or sexual orientation. This Long Range Plan intertwines the library’s rich legacy with an exciting future, serving generations of community members.

## Present

According to the U.S. Census, as of July 1, 2015, the city of New Port Richey’s estimated population was 15,842, an increase of 6.3% from the census of 2010. The city’s poverty rate was 24.7%, nearly twice that of Florida as a whole. While 83.9% of those 25 and older have graduated high school, only 14%, about half the Florida average, have a Bachelor’s degree or higher. In response, the New Port Richey Public Library presented over 1,000 classes, workshops and events, focused on increasing digital literacy, critical thinking, economic enterprise and community engagement, to almost 15,000 attendees. Library profit is demonstrated through the promotion of economic enterprise and the social return on education investment.

## Future

By 2020 (midpoint of this plan), five generations may be represented in the workforce, individuals will have had an average of 10-14 jobs before age 38, over two billion people will own smartphones, over 4,000 books a day will be published, and over three billion people will use the internet. How this will affect New Port Richey has yet to be fully determined, but one thing is certain: Librarian-based educational initiatives and provisions of the latest in

technology will continue to vitally support community members and local businesses, especially as the ability to create and manufacture locally increases.

### Awards

The New Port Richey Public Library and its staff have been recognized on the national, state and local levels for exemplary and innovative offerings. Here are a few:

- 2006 FLA Library of the Year
- Four Star Ranking, 2013 America's Star Libraries  
LJ Index of Public Libraries
- 2014 FLA Librarian of the Year
- 2014 WPCC Public Servant of the Year
- 2014 YALSA Teen Read Week grant recipient- \$1,000
- 2015 YALSA Summer Reading resources grant recipient- \$1,000
- 2015 ASCLA/Keystone Library Automation System/National Org. on Disability Award - \$1,000 programming - Red Apple Adult Training Center
- 2016 Duke Energy grant for 3D printer / Macbook \$2,000
- 2016 Career Online High School Project

- Five Star Ranking, 2016 America's Star Libraries  
LJ Index of Public Libraries
- 2016 & 2017, Fresh Access Bucks Grant for Library Market
- 2017 WEDU PBS Phyllis L. Ensign Library Corner recipient
- 2017 Public Libraries Advancing Community Engagement (PLACE)  
grant- \$1,000
- 2017 West Pasco Chamber of Commerce Public Servant of the Year

## Goals and Objectives

### **Collaboration**

Goal: Improve the community's quality of life.

Objectives:

- Collaborate with city departments to enhance quality of life.
- Share professional librarians' research skills and resources with city departments and outside agencies.
- Continue establishing partnerships with local businesses and organizations to create classes and workshops in health & wellness, business & entrepreneurship, and safety.

### **Curriculum/Collection**

Goal: Provide instructional classes, resources and services that meet the educational and research needs of all members.

Objectives:

- Update collection development policies with a focus on building a relevant, current curriculum.

- Collaborate with local educators and community experts to acquire a core curriculum with adequate resources in each subject area.
- Evaluate online curriculum resources and make changes based on current needs and usage at least once per year.
- Teach members to become effective users and producers of information by offering a variety of classes and workshops based on community demand.

### **Technology**

Goal: Provide equitable access to and support of innovative technology, including devices and software, for all community members regardless of means.

Objectives:

- Evaluate and implement technology tools and software crucial to the effective delivery of the curriculum.
- Provide Internet enabled devices for loan outside the library.
- Increase Internet bandwidth at a rate that adequately accommodates growing demand.

### **Marketing/Outreach**

Goal: Create a marketing plan to promote the curriculum and services to the community.

Objectives:

- Continue to attend local events to advertise classes, workshops, and events offered at the library.
- Increase public awareness of available educational opportunities, services, and resources by increased media presence.
- Cross promote classes offered by local community partners so as not to duplicate services already offered.

### **Physical Space**

Goal: Evaluate, renovate, and expand the library's physical space to accommodate community needs.

Objectives:

- Hire an architecture firm specializing in Library building projects to create a plan detailing renovations that increase overall usability of space- including ADA, customer service, streamlined workflow in staff spaces, intuitive services, and safety/security improvements

- Plan an expanded library designed to meet the needs of the community with the assistance of community members and staff.
- Request City Council to include facility renovations and plan for expansion in the next Capital Improvement Plan.
- Apply for grant funding from the State and other foundations.
- Evaluate current space for ADA compliance.

### **Staff**

Goal: Provide outstanding service from well-trained staff.

Objectives:

- Schedule one professional development training each quarter.
- Provide additional training in technology, customer service & ADA.
- Plan to implement additional staffing and extended hours.
- Training staff on updated procedures and policies.

### **Funding**

Goal: Acquire adequate funding to efficiently meet the needs of the community.

Objectives:

- Increase the library budget so that expenditures on library materials are between 10 to 15 percent of the total library budget.
- Increase the library budget for additional staffing and increase library hours to meet library standards and community needs.
- Increase the library budget by 5 percent for staff training.
- Investigate additional sources such as the Foundation, the Friends and grants.

## Educational Plan

The New Port Richey Public Library will continue to offer quality educational opportunities to all members of our community. In 2016, the library began offering computer classes to adults with special needs in partnerships with the Arc of the Nature Coast and will continue to research and develop this curriculum. The library will continue offering art classes, established in 2014, to special needs adults in partnership with AFIRE of Pasco, Inc., the Arc of the Nature Coast, and Red Apple Adult Training Center with the intention of future partnerships with local Veterans groups and National Alliance on Mental Illness, Pasco.

The library will continue to offer films, panels, and community forums with community partners in order to raise awareness of issues like domestic violence, sexual assault, human trafficking, child abuse, women's rights, LGBTQ rights, and others. We will continue to

partner with local health agencies such as Sunrise and BayCare to offer dynamic, instructional workshops to the public.

### Community Partners

The New Port Richey Public Library partners with organizations like Red Apple Adult Training Center and Arc of the Nature Coast to develop classes for special needs adults. These classes are not commonly offered at public libraries and our partnership with these organizations has made these classes successful and nationally recognized.

The library will continue to develop relationships with organizations like the Alliance for Substance Abuse Prevention (ASAP) -Pasco and National Alliance on Mental Illness (NAMI), to ensure the collection includes resources often suggested to clients by professionals. The library will strengthen communications with the Coalition for the Homeless of Pasco to ensure current and helpful information is disseminated.

New Port Richey's business community greatly benefits from library offerings. To this end, the library will continue to be actively involved with West Pasco Chamber of Commerce events and committees.

### Facilities Plan

The current library opened in March 1991 with approximately 15,000 square feet of total space. Although numerous interior renovations have since taken place to accommodate increasing numbers of library members the current facility is beyond capacity. Renovations and an expansion are needed to transform this 20<sup>th</sup> century facility into an innovative community center that better meets the needs of 21<sup>st</sup> century library users. A user-friendly floor plan with more collaborative spaces, mobile furniture, and digital technologies will provide the resources the public needs to stay current in a world with rapidly developing technology. Flexible spaces and furniture have the additional benefits of accommodating

users of digital as well as traditional print materials while accommodating future growth and format changes.

The New Port Richey Public Library Library averaged 471,581 visits in FY 2016. With 15.05 FTE staff including five professional librarians, a total of 1,353 classes and events took place. The library expansion has been in several Capital Improvement Plans and in Long Range Plans, but each time the project was delayed. A survey was conducted late 2016 and early 2017 to ask our community if more space was needed. Out of the 250 respondents, 209 recommended a library expansion. The bulk of surveyed community members (83.6%) think it's time for a positive move toward realization of this goal, identifying some of the following upgrades:

- Loading dock with larger rear doors to accept deliveries
- Expanded youth area housing larger collections and more study areas
- Public restrooms with child-friendly sinks and stalls and water fountain filtration
- Computer spaces for children and teens
- A glassed-in computer lab/technology friendly classroom for adults
- Additional collaborative meeting spaces
- Indoor drop box
- More parking
- More functional workspace for staff
- Dedicated maker-space designed with flexibility to include a variety of classes
- Large lobby for cafe, bookstore, and seating for browsers
- More study rooms
- Larger meeting rooms
- A quiet room for reading and studying
- A community display gallery
- Telecommunications infrastructure
- Electrical infrastructure and Bandwidth
- Distinctive signage and way finding tools
- Create a library commons for engaged learning with access to the latest technology in software and equipment with point-of-service research assistance

### Staffing Plan

The current status of library staffing is 4 FTE librarians and 7.93 FTE support staff for a total of 12.93 FTE employees. Library hours were decreased in 2010 when layoffs occurred. To meet the diverse needs of the growing families within the New Port Richey community, the library needs more staff to continue providing the quality educational experiences to which families have become accustomed. The library is exceptionally staffed with volunteers at

both the main library and Elfers branch; however, technology demands, the increased need for information literacy, and the fulfillment of an equitable collection requires the refined skillsets and education of professional librarians.

Florida Public Library Outcomes and Standards link quality assurance standards with outcomes to assess the library's ability to meet community needs. These standards detail minimum staffing for professional librarians as .6 FTE per 1,000 population served and .8 FTE support staff per 1,000 population served. Current population in New Port Richey is 15,872, which requires 9.5 full time professional librarians and 12.7 full-time support staff. The library currently employs 5 full time professional librarians. Meeting Florida's standard for public libraries would allow the New Port Richey Public Library to fully realize the library's service potential in meeting the additional standards of participation in local civic organizations and community events; providing outreach services to those who cannot travel; offering a curriculum in locations and times that better meet the community's needs; conducting targeted outreach to the underemployed and underserved; and providing services to the business community, classes for early literacy and teen targeted STEAM events.

According to a survey conducted during the 2016/2017 winter, both library members (74%) and non-members (26%), 44.4% are happy with our current hours and 38.4% would like to see library hours enhanced to include additional weekend hours. This same percentage supports the addition of staff to achieve this goal. The addition of 4 FT staff (two librarians, two support staff) allows us to inch closer to Florida standards, expanding both our level of community enrichment and library hours of service to Monday through Thursday 10am to 8pm and Friday and Saturday 10am to 5pm.

## Annual Plans of Service

2017-2018

- Negotiate Apple lease renewal. (Technology)
- Assess building to comply with ADA standards. Build into budget for 2018-2019 costs to bring it up to standard. (Physical Space)
- Develop an updated Collection Development policy. (Collection)
- Hold a staff development day where library is closed to the public. (Staff)
- Hold quarterly staff meetings and professional development meetings. (Staff)
- Develop a Disaster Training Plan to include both natural disasters and man-made situations. (Staff/Collaboration)
- Implement coding instruction workshops for both children and teens. (Curriculum)
- Review and update policies (Staff/Collaboration)
- Set up regularly scheduled outreach with additional preschools and public schools. (Marketing/Outreach)
- Continue and enhance educational classes, workshops and cultural opportunities and events. (Curriculum)
- Librarians serve on various community organizations boards or as members. (Collaboration & Marketing/Outreach)
- Develop and conduct surveys with local small businesses and entrepreneurs to determine their educational and research needs. (Collaboration)
- Continue to apply for grants and seek alternative funding sources. (Space/ Staff/ Curriculum)
- Create a marketing and promotional plan (Marketing/Staff/Collaboration)
- Hire firm to review building space needs and create plan for renovations and expansion (Space)
- Update switches and routers (Technology)

2018-2019

- Renew lease for Apple iMacs for 3 years. (Technology)
- Evaluate Broadband usage (Technology)
- Plan 100th anniversary celebration. (Collaboration)
- Proceed with activities necessary to comply with ADA standards. (Space)
- Schedule and hold one annual staff development day where library is closed to the public. (Staff)
- Schedule and hold quarterly staff meetings and staff development sessions after hours. (Staff)
- Create classes and events specifically geared towards local homeschool families. (Curriculum)
- Expand curriculum events geared towards “new adults,” ages 18-30. (Curriculum)
- Increase the number of STEAM related youth activities available at the library. (Curriculum)
- Develop and implement classes and workshops based on surveys and needs assessments of local businesses and home-businesses owners. (Curriculum and Marketing/Collaboration)
- Partner with local business experts to offer “lunch and learn” workshops. (Collaboration)
- Continue to apply for grants and seek alternative funding sources. (Space/ Staff/ Curriculum)
- Write a Standard Operating Procedure Book (Staff/Collaboration)
- Convene long range planning committee. (All)
- Prepare LSTA Construction Grant application and submit to City Council for approval and submission to the state. (Space)
- Work with architect on conceptual plans and renderings. (space)
- Develop parameters for specific areas, i.e. square footage for children’s interactive library, teen area, computer labs, makerspace area, meeting and conference rooms, staff offices, staff work areas, storage areas, loading dock, etc. (Space)

## 2019-2020

- Schedule and hold one annual staff development day where library is closed to the public. (Staff)
- Schedule and hold quarterly staff meetings and staff development sessions after hours. (Staff)
- Begin research for replacing servers or moving to a cloud-based platform (Technology)
- Continue to expand support available to local businesses and entrepreneurs by hosting networking opportunities and sponsoring business workshops. (Collaboration)
- Provide instructional classes inside the library that can be recorded and uploaded to our website for viewing by those unable to attend in person. (Curriculum and Marketing/Outreach)
- Use youth staffing and resources to provide additional formats for storytimes, including bilingual and sensory storytime for children with special needs, as well as a “safety storytime series” to run annually. (Staff and Curriculum)
- Create a dedicated StoryWalk® at a local park. (Curriculum and Collaboration)
- Implement book clubs for various age groups and demographics. (Staff)
- Develop a collection of topical “kits” available for checkout to better serve local homeschool families. (Curriculum)
- Convene the next Long Range Planning Committee. (Collaboration)
- Create and disseminate entrepreneur startup kits. (Curriculum and Marketing/Outreach)
- Continue to apply for grants and seek alternative funding sources. (Space/ Staff/ Curriculum)
- Begin renovations (Space)
- The Library Director according to state requirements manages the library expansion project and works with the architects on final plans. (Space)

## 2020-2021

- Negotiate Apple lease for 2021-2022 with updated numbers and types of equipment necessary. (Technology)
- Develop and implement classes and events for prenatal needs, to include early literacy elements for parents. (Curriculum)
- If staffing allows, implement regular offsite storytime classes around the community. (Curriculum)

- Schedule and hold one annual staff development day where library is closed to the public. (Staff)
- Schedule and hold quarterly staff meetings and staff development sessions after hours. (Staff)
- Continue to apply for grants and seek alternative funding sources. (Space/ Staff/ Curriculum)
- Evaluate and replace any existing audio/visual equipment (Technology)
- The City bids and awards the library construction project. (Space)
- Construction begins. (Space)

## 2021-2022

- Renew lease with Apple for necessary types and numbers of equipment. (Technology)
- Schedule and hold one annual staff development day where library is closed to the public. (Staff)
- Schedule and hold quarterly staff meetings and staff development sessions after hours. (Staff)
- Continue to apply for grants and seek alternative funding sources. (Space/ Staff/ Curriculum)
- Construction continues on the library expansion. (Space)
- Library Director plans the move into the new area and the realignment of space in the old section. (Space)
- New furniture and materials are ordered. (Space)

## **Current Technology Report for 2017**

prepared for New Port Richey Public Library by TecHarbor

### **Executive overview**

This report will show the current state of the library IT infrastructure, including recommendations for corrective and proactive action items. These recommendations will address current deficiencies and provide for improved management and scalability of the data network infrastructure.

### **System purpose**

The New Port Richey Library operates an enterprise class data transport systems in support of the needs of its faculty, staff, and patrons. They are operated in a "production" mode, which means they are functional on a 24/7/365 basis. Access is provided to the Encore online system via Internet browser queries. Web site and database services are hosted internally on dedicated Linux servers. Internal security provided by a local Windows file server.

### **Systems evaluation**

The current Internet connection is provided by Spectrum. This is a high speed, synchronous coaxial cable connection rated at 30 megabits per second. Data throughput speed was measured after normal business hours with minimal user activity. Speeds shown were 27.91 mbps download and 26.63 mbps upload.

The main ingress network firewall / router is a Cisco Systems ASA-5510 running a Security Plus license. This device has passed Cisco's end of life date, with no available security or operating system updates. It should be replaced with an enterprise level, layer 7 inspection capable firewall / router device to ensure the internal system security, provide responsive Internet connections, and to allow for future VLAN routing requirements.

There are various types of computer nodes in use on the internal network. These run Apple OSX, Windows (various versions), Windows server and Linux server operating systems (various versions), and tablet and cell phones running Android and Apple operating systems.

The internal “backbone” data switch infrastructure consists of a mixture of data switches. They provide either 100 or 1000 mega bit per second connections to the local network nodes. No detailed connection documentation is available. Most switches are of the managed variety, with some “workgroup” non-managed switches in place.

The wireless system is an entry-level managed system that provides both secured private and open public wireless connectivity. It is controlled by a locally hosted, software-based management program. This program only provides a rudimentary level of control and tracking functions for the wireless clients.

The current public SSID is residing on the same subnet that the secured network resides on. This network should be separated by a switch-based Virtual Local Area Network (VLAN) configuration. There are 5 individual Wireless Access Points (WAPs) installed, with 1 additional WAP showing as “Isolated” (offline).

The main file server is a newer file server running the Windows 2012 R2 Standard operating system, running various services including Active Directory, DNS, and DHCP. This server has adequate internal resources for current user and server demands. The Active Directory security system provides for 25 domain user accounts, with various non-user service accounts. DHCP (Dynamic IP address pool) is not adequate for current demands due to usage by the public wireless connections. Network connection is currently using 1 of 2 available network interfaces. The unused interface could be aggregated to the current active connection for increased throughput. Current maximum speed is 1 gigabit per second.

Macintosh computers are joined to an Apple server instance running on a recently procured Mac Mini unit. This server has adequate resources for all current server and user demands. It provides software and security controls for the internal staff and patron Macintosh units. Currently connected via a single 1 gigabit network interface connection.

The library utilizes the Sierra ILS workflow system from Innovative, Inc to provide library staff with a higher level of data integration with existing library systems. This runs on a locally hosted, Linux-based server provided and maintained by Innovative, Inc.

The Sierra server integrates with the Encore Discovery Solution server, a locally hosted, Linux-based web server. This server hosts the Encore library, which provides integration of

articles, books, eBooks, digital collections with real-time linkage to the Sierra ILS system. The server is provided and supported by Innovative, Inc.

Server backups are provided by the Built-in Windows Server Backup program provided with the Windows 2012 R2 operating system. This program performs a full nightly backup of the main Windows server only. No system-level backups are performed for the Mac Mini, or either Linux servers.

The main server backups are performing as designed, however, the system should be updated to an enterprise class backup program with capabilities to image Linux and Macintosh servers, in addition to Windows servers. Acronis is the recommended backup platform, with appropriate client licenses for all servers. Current backups are stored on a local USB-attached external hard disk. Restores must be performed within the Windows Backup software (browsing the backup images is not possible).

Data stored on user PC's and / or Macintosh computers are not currently backed up. Critical systems should be added to the backup system when that system is upgraded.

### **Future Objectives:**

The objectives over the next 5 years are the following:

#### Internet connection:

The existing 30 megabit per second connection is adequate for existing demands. As user and system demand increases, an additional connection can be added. Note: to allow both connections to be utilized, the firewall /router must support WAN connection trunking for fail over and load sharing.

#### Firewall / Router:

The existing router should be replaced with an enterprise level device capable at least 100 mbps incoming WAN speeds, port trunking, layer 7 packet inspection, and extended logging capabilities. The currently recommended unit for this client would be the Meraki MX65 or MX84. Both units provide all required functionality, with the added advantage of cloud based control and monitoring, and wireless access point integration. The MX84 provides cellular 3G/4G failover in addition to the features provided by the MX65. All units provide

layer 7, application specific traffic monitoring and control, and a host of additional features. Trial units are available from Meraki. The cloud subscription can be a 1, 2, or 3-year subscription. This covers device replacement, technical support, and data storage.

#### Cabling plant:

The existing cabling structure should be evaluated. The individual cable and patch panel connections should be diagrammed and labeled, both at the patch panel in the server room, and at each individual wall plate or cable end (for “home-run” cable connections).

#### Data switches:

All data switches should be updated to the latest firmware available. Any non-gigabit units should be replaced with gigabit capable devices. Any non-managed workgroup switches should be removed from the network. This may require additional network drops to be installed to provide for all active nodes. Switches should be inter-connected on gigabit ports. VLANs for data, public wireless, and IP phones should be configured on all switches. Switches should be enabled for SSH and HTTPS access from the internal network, using complex passwords.

#### System backups:

The backup system should be upgraded to the enterprise product from Acronis, with any required agents to allow system images to be generated from all servers, and any critical workstations (pc or Mac). The backup system should be able to perform “bare-metal” image backups of all respective systems, regardless of open files or errors encountered. It should provide for email notification of backup status, and allow the admin user to browse the image files for point in time restores of individual files or folders. This is critical for ease of use and to provide a timely “time to recover” in case of individual file / folder deletion or corruption. Images should be stored on external, USB 3.0 capable hard disks. A set of at least 5 disks should be utilized on a daily rotating basis. There should be at least two disks stored off-site, along with a bootable recovery CD, to allow for disaster recovery in case of physical damage or destruction of the server(s) and / or library structure. Disk size should be adequate to store at least one complete image for each server / personal computer in the backup scheme. Backups should be configured to image each unit nightly, Monday through Friday, with possibly a quarterly “master” backup image.

#### Wireless system:

The current Ubiquiti wireless system is not adequate to provide for the needs of both the internal secured wireless users, and the public, open wireless network. It also poses a security issue by placing the public users on the internal (default) VLAN network subnet. This could be rectified by re-configuring the existing configuration (provided VLANs were available), but would not increase stability or management/ reporting capabilities of the WLAN's (Wireless Local Area Networks).

The wireless access points provided by Meraki natively integrate into the same cloud management system as the router / firewall, providing extensive control and monitoring of the wireless system. All configurations are done in the cloud system, then automatically provisioned to the access points and firewall. Various alerting levels are available for all units. Security can be configured down to the wireless node level. Real-time monitoring is standard on all units, which allows for specific user device level troubleshooting. The cloud subscription can be a 1, 2, or 3 year subscription. This covers device replacement, technical support, and data storage.

#### Servers:

The current servers are adequate for the current and foreseeable future, unless additional systems are implemented that change server resource requirements. Normally, servers are evaluated on a 4 year cycle to determine if replacement or upgrades are required. This may be done more often, depending on server warranties on each individual server. Servers should have a valid warranty or service contract at all times.

The main server that runs the backup system should have USB 3.0 capabilities. If not supported by the server natively, an add-in USB 3.0 interface card can be procured and installed. This ensures efficient backup and recovery speeds. The main 2012 server should have the 2 network interface cards trunked via the Windows "NIC Teaming" function. This will increase the available network connection bandwidth to 2 megabits per second. This will eliminate any bandwidth bottleneck at the server level.

#### Sierra and Encore servers:

If available, transitioning these servers to a cloud-based system may alleviate maintenance and backup requirements for these systems. It would also reduce the amount of required Internet bandwidth for Internet based searches. Research on the actual utilization would be required to determine feasibility.

Personal computers:

Individual PS / Macintosh computers should be replaced with updated models every 3 years, or as needed. Hardware warranties on these units typically expire 1 year after purchase. Replacement hardware is normally easily acquired locally, so extended warranties or service contracts are not usually needed.

Users should not store production data locally on their computers. Mapped drives to share points on the servers should be the only place this type of data is stored, unless that specific computer is being imaged with the main backup system.

The above recommendations would result in a stable, responsive, and secure network that would provide the base infrastructure to allow New Port Richey Library to continue providing quality services to the public.