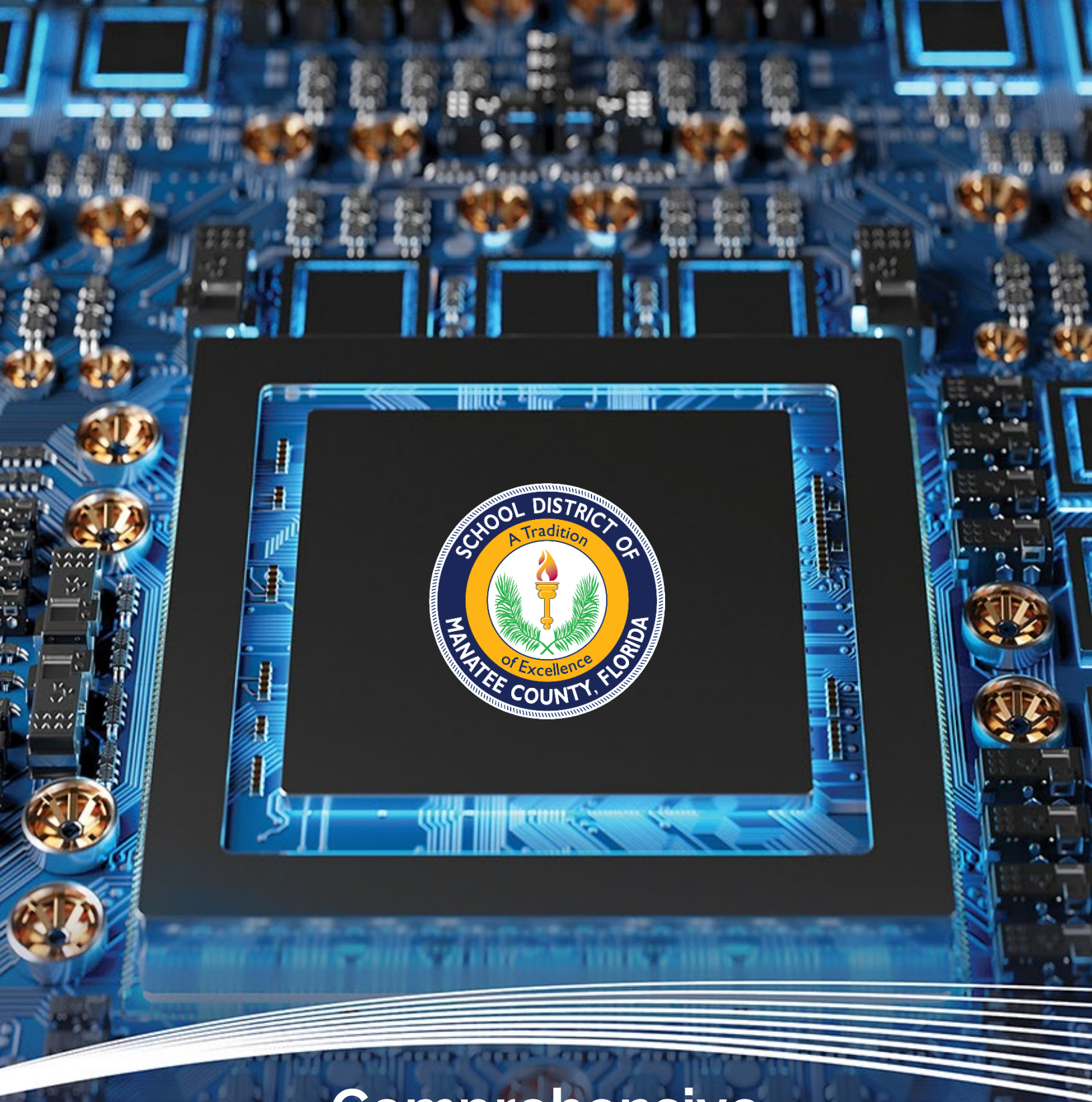

Comprehensive District Technology Plan

Effective August 6, 2024 – June 30, 2029

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SECTION 1
GENERAL INTRODUCTION/BACKGROUND

1.1 School District of Manatee County (SDMC) Mission Statement

The School District of Manatee County will educate and develop all students today for their success tomorrow.

1.2 School District of Manatee County Vision Statement

The School District of Manatee County will be an exemplary student-focused school system that develops lifelong learners to be globally competitive.

1.3 Our Core Values

- WE BELIEVE IN academic excellence through innovation and teamwork.
- We BELIEVE IN in professionalism, responsibility, and respect.
- We BELIEVE IN transparent communications at all levels.
- WE BELIEVE IN quality schools strengthening our community.
- WE BELIEVE IN OUR Commitment and dedication to every student.

1.4 Superintendent Leadership Team

https://www.manateeschools.net/superintendentteam

1.5 READY 2026 Strategic Plan

Ready 2026 is our new Strategic Plan for school years 2022-2026 and is a culmination of a collaborative process developed with valuable input from employees, district administrators, parents, and community/business leaders. https://www.manateeschools.net/strategicplan

1.6 Our Technology Vision

Meet the changing needs of students by implementing universal technology solutions across multiple platforms through automation, innovation, and integration while empowering staff to equitably support curriculum and instruction in every school.

1.7 Student Progression Plan

The School Board has the authority to adopt rules for implementing the student progression requirements for students in grades kindergarten through 12. The Student Progression Plan for Manatee County defines the criteria for graduation, participation in graduation, promotion, intensive remediation, course offerings, evaluating student performance, and reporting to students and parents. The Student Progression Plan for Manatee County has been developed based on Florida Statutes and current and local needs.

Changes may be made to the School District of Manatee County Student Progression Plan at any time pending new legislation or interpretation of legislation from the Florida Department of Education. https://www.manateeschools.net/SPP For more information, see Florida Department of Education website – www.fldoe.org.

1.8 Student Code of Conduct

URL: https://www.manateeschools.net/studentcodeconduct

SECTION 2
DISTRICT PROFILE

Manatee County Facts:

- Located on the west-central coast of the state of Florida, with the central administrative operations located in Bradenton.
- Bradenton is the largest city in Manatee County and is the county seat, located between the Tampa/St. Petersburg area and Sarasota, Florida.
- Incorporates 893 square miles (743 sq mi = Land, 150 sq mi = Water).
- July 1, 2022, estimated population is 429.125 per census.gov

The local economy is based on five main economic factors:

- retirement
- government
- farming
- tourism
- service industries

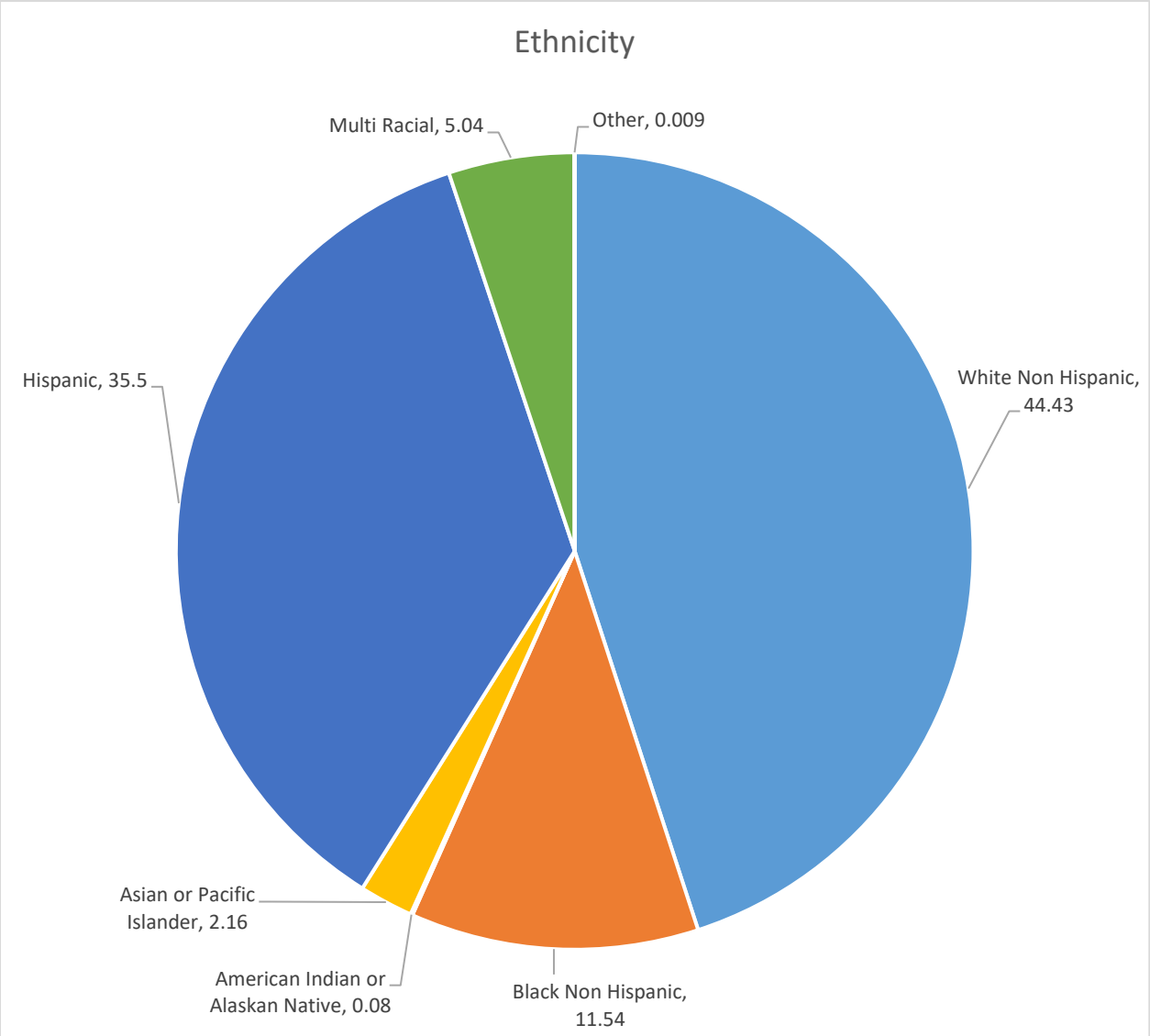
With our Gulf beaches and exceptional year-round climate, significant local revenues are generated by tourism and related service business. Farming of tomatoes, oranges and a variety of agricultural products remain a significant part of the county economy and accounts for a significant migrant farming population both in the community and the schools. The service economy accounts for nearly 30 percent of the area's employment providing food service, maintenance, landscaping, banking, and retail operations.

Manatee County School District Facts

- 31 - Elementary Schools*
- 2 - Combined School
- 9 - Middle Schools*
- 7 - High Schools*
- 4 – Alternative
- 12 – Contracted
- 15 – Charter Schools
- 1 – Post Secondary Technical College
- Among the highest starting salaries for teachers in Florida
- Largest employer in Manatee County – 6000+ employees
- More Career & Technical Programs than any other Technical College in Florida
- Over 150 years of educational excellence
- Upgraded Ratings from Moddy's, S&P, and Fitch – based on financial performance.

Student Facts:

The Manatee County School District currently focuses its educational efforts on over 50,000 + K-12 and charter students.



- 52.6% of the student population qualify for free and reduced lunch prices.
- *99 languages spoken by students throughout the school district.*
- *1 in 6 students is an English Language Learner.*

Average Class Size:

Grade PK-3	15.78
Grade 4-8	19.48
Grade 9-12	21.88

Staff Facts:

With over 6,000+ employees, the school district is the largest employer in Manatee County.

Employee Group	**Employee Count**
Administrative	210
Board	5
Instructional – Full-Time	389
Instructional – Part-Time	129
Support – Full-Time	2375
Support – Part-Time	44
Teachers – Full-Time	2507
Teachers – Part-Time	120

Above data as of 7/9/2024

SECTION 3
TECHNOLOGY NEEDS, STANDARDS, & COMMITTEES

3.1 Process for Determining Needs

The Office of the Chief Technology Officer (CTO) leads the development of the long-range technology plans for the entire district. The new strategic planning process is aligning department efforts with overall district objectives and goals approved by the School Board.

The Information Technology Division reviews and recommends for SDMC Board approval the maintenance and ongoing support of existing and new technologies and integrations in SDMC.

Additionally, the Information Technology Division, reviews, approves, and provides recommendations for SDMC approval for all technology infrastructure, end point devices, software integrations, and implementations.

Six main component areas are targeted annually to determine needs for all schools:

1. Student Performance Outcomes
2. Digital Learning and Technology Infrastructure
3. Professional Development
4. Digital Tools
5. Online Assessment Support
6. Committees and Focus Groups

3.2 Training

The Professional Learning department conducts a yearly online training needs assessment that includes a section for technology training. The results from the survey guide priority technology training in the following year.

3.3 Florida DOE Technology Resource Inventory, Needs Assessment, and IT Customer Satisfaction Surveys

The district will provide updated data through the use of the Technology Resources Inventory (TRI) when this tool is available. The Bureau of Educational Technology utilizes the Technology Resources Inventory maintained by the Florida Center for Interactive Media (FCIM) to provide districts and schools with the necessary data to effectively integrate technology into school curricula and instructional strategies.

The results of these inventories are reported online to assist with technology planning and implementation in schools and districts throughout Florida. SDMC will continue to leverage this as an important tool for determining needs for all schools. Information Technology assists each school in completing this survey.

Additionally, the Information Technology Division will complete an annual technology needs assessment walk through for all SDMC schools. The Technology needs assessment will be scheduled with each school leadership team.

Through the IT Solutions and Support Center (Service Desk Application) users can provide feedback using an optional customer satisfaction survey tool.

3.4 Florida DOE Technology Specifications for Online Assessment

Florida Department of Education provides a minimum set of technology requirements for student computers and bandwidth requirements for students. SDMC will utilize these minimum standards as a benchmark for computer purchases and future network upgrades.

3.5 School Improvement Plans (SIP)/School Technology Plans and Advisory Councils

All schools prepare their own SIPs based upon an analysis of the available data. All SIPs are required to reflect the mission and objectives approved by the Board.

The **Continuous Improvement Management System (CIMS)** was developed by the Bureau of School Improvement (BSI) to help serve the needs of stakeholders across Florida. This site provides district and school teams an online platform for collaborative planning and problem solving. SDMC leverages this framework to update their SIP via https://www.floridacims.org/

3.6 English Speakers of Other Languages (ESOL)

ESOL student plans are updated yearly in ELLevation. This program communicates with FOCUS to ensure that the FTE codes and testing data from FOCUS are on the ELL plan. Each student plan is also required to be updated any time there is a schedule change for an English language learner. Teachers also have access to a student's ACCESS for ELLs 2.0 assessment data for each year a student has taken this state-wide assessment. This data allows school personnel to monitor a student's English language acquisition and plan appropriate instruction.

3.7 Exceptional Student Education (ESE)

Technology can be, and is, used in various ways to support the Exceptional Student Education program. An Individual Education Plan (IEP) is provided through the state provided system – PEER that can be accessed at both the school and district level by appropriate personnel.

This will enable teachers and administrators to monitor and assess the ESE student's progress, prevent lapses in services, and provide up-to-date information in the Student Information System.

3.8 Governance Committees and FOCUS Groups

- Cabinet
- Capital Committee
- ERP Governance Committee
- IT Leadership Team (ITL)
- IT Security Committee
- Operations Leadership Team
- Paperwork Reduction Committee
- Records Committee
- School Advisory Councils
- Student Information System Committee (FOCUS)
- Superintendent's Internal & External Working Groups
- Superintendent's Leadership Team
- Superintendent's Student Leadership Forum
- Technology & Curriculum Working Groups
- Technology & Innovation Strategic Planning Committee Web Committee

3.9 Classroom Technology Standards - Hardware

Priority	Technology Item
1	Teacher/Admin - district standard laptop (Windows Based OS) that is designed to meet district access to Student Information System, Business Information System, Learning Management System, digital instruction, and other district approved systems.
1	Student - Standard classroom mobile device is a Chromebook.
1	Wall Mounted – Center of Room - Digital Interactive Display panel 75" – Samsung/Promethean – (Cart mounted – Portable or Brick/Mortar room that does not support wall mounted install)
1	Samsung Signage Player Box/TV Tuner (75" Interactive Samsung Only)
1	IPTV available at all schools and must use WIRED Ethernet connection
1	Promethean Interactive Digital Display
1	Wireless Keyboard/Mouse Combo for Promethean Display
1	New Wired Computer labs homerun to IDF (No MINI SWITCHES) as needed to support curriculum and instruction
1	1:1 Wireless Access Point Per Academic Classroom (including portables)
2	Provide schools with option to purchase district standard student Windows OS laptop/desktop based on curriculum requirements
1	VoIP Classroom Phone
OPTIONAL EQUIPMENT	
3	ScreenBeam Wireless Display Receiver
3	Samsung Soundbar District Standard
3	Promethean Soundbar
3	Portable Projector Stage/Photo Studio Mount
3	HoverCam Solo
3	IPADS, Digital Readers
3	Printer – Centralized MFDs, Network Printers and Print Services Center
3	District Standard HP Mini Mounted
3	Anywhere Cart – 30/36
3	Audio Enhancement Classroom
3	Anywhere Cart – AC-COLLABR-8 (Charging Tower)
3	Headphones without microphone – Gumdrop Droptech headphones B1 Black (other microphone options available)
3	Headphones with microphone Gumdrop Droptech headphones B1 Black (other microphone options available)
3	WEB Camera – ViewSonic Viewcam VM-CAM-001

Note: Samsung Display/Interactive Panels installed in Conference Rooms, Cafeterias, and Office Areas.

SECTION 4
INFRASTRUCTURE, PERFORMANCE, AND SECURITY

4.1 Data Network

4.1.1 All schools in the district are networked. Schools with multiple buildings or multiple communication closets within the same building communicate with each other using 10 Gbps fiber uplinks.

4.1.2 All workstation switch ports are 10/100/1000 Mbps. Every space occupied by staff has at least one data drop outlet with two or more Ethernet ports wired with Cat 5E cables at a minimum. CAT6A is the standard for any adds and/or new construction.

4.1.3 Classrooms have a minimum of two data outlets.

4.1.4 Computer labs are generally wired with one data drop for each computer in the lab.

4.1.5 Portables are connected to the main buildings with fiber optic cable and equipped with 1 Gbps uplinks and have a 10/100/1000 Mbps managed network switch.

4.1.6 Wireless network coverage is necessary for the effective deployment and use of wireless laptop computers. The district has achieved a 1:1 wireless access point ratio for all academic classrooms. Plans to increase wireless coverage to common areas, courtyards, and other outside spaces in 2024-2026.

4.1.7 Fifty-four (54) district sites with 10 Gbps fiber connections terminating into two data centers with independent Internet circuits.

4.1.8 All 54 sites have 12 strands of fiber in and 12 strands of fiber out on five (5) independent district owned fiber rings and on single spoke and hub ring.

4.1.9 Eight (8) North River sites have dual 10 Gbps connections back to both data centers via a single collapsed lateral.

4.1.10 Four (4) administrative sites are also connected to the District via dual 10 gigabit fiber rings. All (4) sites connect to both data centers. The entire SDMC fiber optic system is subterranean and owned by SDMC.

4.1.11 As of July 2024, fifty-seven (57) district sites are connected via managed dark fiber with dual 10G connections back to each data center. This dark fiber was installed in addition to SDMC owned dark fiber for added network resiliency. Both SDMC owned and Managed Service Provider (MSP) provided dark fiber are monitored and managed under contract with MSP.

4.1.12 Internet content filtering is implemented for all users using a cloud based hosted solution. All Internet access is directed through the firewall without exception and is policy / role based.

4.2 Infrastructure and Network Support Services

The School Board approved an infrastructure upgrade on February 11, 2020, for INTERNET Services and Leased LIT Fiber Not to Exceed $2,782,560.00 that includes (2) INTERNET Circuits and a fully managed Layer 3 Service including a bundled security package posturing SDMC for up to a maximum of 84 months of continued uninterruptable service. This approved upgrade allows for INTERNET bandwidth upgrades when needed.

The School Board approved a Managed Dark Fiber solution on February 8, 2022. The requested contract is for the period of July 1, 2022, through June 30, 2037.

A significant portion of this annual cost will be funded through E-RATE.

The district's centralized server infrastructure (physical/virtual) and INTERNET services are located at the district's dual data centers.

The Information Technology Division is planning a data center infrastructure refresh for 2024/2025.

The district uses Microsoft Office 365 (O365) for email services and Office applications. O365 provides seats for all district staff, students, contracted sites and Charter Schools. The service is cloud hosted for redundancy.

4.3 Telephone and Intercom

Every classroom and office location are equipped with a new Internet Protocol (IP) based handset device and access to the new enterprise IP based PA system. Life safety systems are integrated through the IP PA system to ensure drills and lockdown messages are heard on each campus throughout the district.

4.4 Technology Security Protection Measures

The district's INTERNET connections are secured with an enterprise level firewall system and services that are monitored 24X7X365. Additionally, integrated intrusion detection and prevention systems to reduce exposure to threats and a host of additional services that provides a comprehensive suite of unified threat management features that meet the unique security requirements of SDMC.

Email Protection:

Emails are hosted on our tenant in the cloud. We have enabled anti-spam and other security components that also include data loss prevention for confidential information and sharing restrictions outside of our environment.

With the assistance of email filtering, we block several spam messages from reaching our SDMC email boxes and we also have security and compliance measures in place to archive and preserve email history to meet required retention periods.

The list of other advanced threat protections that are enabled are:

- Anti-Phishing: Protects our users from phishing attacks (i.e. impersonation and spoofing) and use safety tips to warn users about potentially harmful messages.
- Safe Attachments: Protects SDMC from malicious content in email attachments.
- Safe Links: Protects SDMC users from opening and sharing malicious links in email messages and Office desktop applications.
- Anti-Malware: Protects SDMC email from malware, including what actions to take and who to notify if malware is detected.
- DDOS Protection: Defends against denial-of-service attacks that would occur in in the cloud that would impact users' ability to access resources.

4.5 Instructional Television Network (MSTV)

The district has an educational television channel, Manatee Schools Television (MSTV). The mission of Manatee Schools Television is to produce and broadcast television programs supporting the vision of the School District of Manatee County and the educational needs of our students, staff, and community. MSTV broadcasts to the community on Spectrum and Frontier cable television networks. Manatee Schools Television can also be viewed on the School District of Manatee County app available for, Roku, Fire TV, and Apple TV as well as online twenty-four hours a day, seven days a week.

MSTV produces internal and external content, provides production equipment, and professional level studios for district productions.

SECTION 5
TECHNOLOGY STRATEGIES AND METRICS

Goal 1: Maintain a technology refresh plan that provides equitable, sustainable, and relevant technology resources to all students and staff.

Strategies:

- Ensure a sustainable district wide Computer Refresh Plan is provided to all schools annually.
- Implement and maintain a sustainable digital device platform to address the instructional needs of all students.
- Implement an innovative device agnostic translation service for students and staff regardless of the language, disability, or location.

Goal 2: Sustain a modernized communication system infrastructure for all schools.

Strategies:

- Implement and maintain an all-inclusive communications module integrated with the Student Information System that delivers personalized voice messages, SMS texts, emails, mobile app push notifications, and announcements for staff, parents, and students.
- Implement a comprehensive communications platform to deliver a best-in-class K-12 customer service experience for our district and community.
- Install and/or maintain Digital Marquee Outdoor Signage at all schools.
- Maintain and upgrade communication systems infrastructure.

Goal 3: Delivering powerful business intelligence dashboards for rapid and secure student and district data reporting.

Strategies:

Create a Transportation Analytics Dashboard that includes:

- Student Ride Length
- On-time performance
- Route Optimization & Scheduling
- Fleet Maintenance & Health Monitoring

- Safety & Compliance Reporting

Create Post Secondary Dashboard that includes:

- Applicant Trends
- Enrollment Statistics
- Student Demographics
- Dual Enrollment History
- Attendance, Grade, and Disciplinary Metrics

Maintain and enhance the:

- Public Academic Dashboard
- Teacher Summary, Early Warning, and L25 Dashboards
- Financial Reporting Dashboards
- Human Resources Dashboards
- District Devices, Network Security, Print Services, and Property Records Dashboards

Goal 4: Improve the productivity of all staff by providing cost efficient and innovative technology solutions**.**

Strategies:

- Implement and maintain an optional integrated classroom management tool that assists with keeping students engaged and focused on digital learning and curriculum and providing teachers with visibility and management of device activity.
- Implement, maintain, and support approved AI integrated tools.
- Digitize inactive student records to a central digitize repository by December 2026.
- Maintain the active digitize student records repository.
- Deploy innovative and cost-effective operating systems.

Goal 5: Provide a safe, secure, consistent, and seamless connectivity experience to all users supporting the educational goals of all schools.

Strategies:

- Maintain and enhance parent portal to provide a seamless experience to resources provided by the school district.
- Implement the Fiber Infrastructure Expansion project to all school sites creating a resilient and cost-effective long-term solution to address the instructional needs and safety requirements for SDMC.
- Upgrade eligible schools network infrastructure.
- Evaluate on premise enterprise applications and systems for cloud readiness annually.
- Continue to expand and upgrade infrastructure to support eLearning opportunities for students.
- Evaluate and complete cabling infrastructure retrofit projects at select schools.
- Implement new Data Center infrastructure solutions to replace existing legacy equipment.
- Maintain, evaluate, and implement cyber security solutions and processes based on the continued changes of the threat landscape.

SECTION 6
INFORMATION TECHNOLOGY INFRASTRUCTURE, COMPUTER AND SERVER REFRESH PLANS

6.1 Classroom Interactive Digital Display Panel Upgrades

High School:

School Name	Grade Levels	Status/Projected Refresh	Future Projected Refresh
Bayshore	All Academic Classrooms	2023-2024	2030-2031
Braden River	All Academic Classrooms	2025-2026	2032-2033
Lakewood Ranch	All Academic Classrooms	2024-2025	2031-2032
Manatee	All Academic Classrooms	2025-2026	2032-2033
Palmetto	All Academic Classrooms	2024-2025	2031-2032
Parrish Community	All Academic Classrooms	2025-2026	2032-2033
Southeast	All Academic Classrooms	2024-2025	2032-2033
Horizons	All Academic Classrooms	2023-2024	2030-2031

Middle School/Combination Schools:

School Name	Grade Levels	Status/Projected Refresh	Future Projected Refresh
Braden River	All Academic Classrooms	2025-2027	2032-2034
Buffalo Creek	All Academic Classrooms	2025-2027	2032-2034
Haile	All Academic Classrooms	2024-2025	2031-2032
Mona Jain	All Academic Classrooms	2025-2026	2032-2033
Johnson K-8	All Academic Classrooms	2025-2027	2032-2034
King	All Academic Classrooms	2025-2027	2032-2034
Lee	All Academic Classrooms	2023-2024	2030-2031
Lincoln Memorial	All Academic Classrooms	2023-2024	2030-2031
Nolan	All Academic Classrooms	2025-2027	2032-2034
Palm View K-8	All Academic Classrooms	2020-2021	2027-2028
Sugg	All Academic Classrooms	2023-2024	2030-2031

Secondary Projected Cost: 2025-2026 - $1,800,000 - 2026-2027 - $1,500,000

Elementary Schools:

School Name	Grade Levels	Status/Projected Refresh	Future Projected Refresh
Anna Maria	All Academic Classrooms	2022-2023	2029-2030
Abel	All Academic Classrooms	2022-2023	2029-2030
Ballard	All Academic Classrooms	2022-2023	2029-2030
Bayshore	All Academic Classrooms	2022-2023	2029-2030
Blackburn	All Academic Classrooms	New Construction	2032-2034
Braden River	All Academic Classrooms	2022-2023	2029-2030
Daughtrey	All Academic Classrooms	2022-2023	2029-2030
Freedom	All Academic Classrooms	2023-2024	2030-2031
Gullett	All Academic Classrooms	2022-2023	2029-2030
Harvey	All Academic Classrooms	2025-2026	2032-2033
Kinnan	All Academic Classrooms	2023-2024	2030-2031
Manatee	All Academic Classrooms	2023-2024	2030-2031
McNeal	All Academic Classrooms	2020-2021	2027-2028
Miller	All Academic Classrooms	2022-2023	2029-2030
Mills	All Academic Classrooms	2021-2022	2028-2029
Moody	All Academic Classrooms	2023-2024	2030-2031
Myakka	All Academic Classrooms	2021-2022	2028-2029
Oneco	All Academic Classrooms	New Construction	2032-2034
Palma Sola	All Academic Classrooms	New Construction	2032-2034
Palmetto	All Academic Classrooms	2021-2022	2028-2029
Prine	All Academic Classrooms	2021-2022	2028-2029
Rogers Garden	All Academic Classrooms	2022-2023	2029-2030
Samoset	All Academic Classrooms	2022-2023	2029-2030
Sea Breeze	All Academic Classrooms	2022-2023	2029-2030
Stewart	All Academic Classrooms	2022-2023	2029-2030
Tara	All Academic Classrooms	2024-2025	2031-2032
Tillman	All Academic Classrooms	2023-2024	2030-2031
Williams	All Academic Classrooms	2022-2023	2029-2030
Willis	All Academic Classrooms	2020-2021	2027-2028
Witt	All Academic Classrooms	2021-2022	2028-2029

Elementary Projected Cost:
2027-2028 – $2,050,000
2028 -2029 - $2,050,000

6.2 Media Centers – Renovation, Furniture, and Technology Upgrades

Fiscal Year	School Name	Status
2024-2025	Kinnan Elementary	Planning Phase, Scheduled Visits, & Design in Progress
2024-2025	Lincoln Memorial	Planning Phase, Scheduled Visits, & Design in Progress
2024-2025	Moody Elementary	Planning Phase, Scheduled Visits, & Design in Progress
2024-2025	Palmetto Elementary	Planning Phase, Scheduled Visits, & Design in Progress
2024-2025	Stewart Elementary	Planning Phase, Scheduled Visits, & Design in Progress
2024-2025	Tara Elementary	New Construction
2025-2026	Blackburn Elementary	New Construction
2025-2026	Oneco Elementary	New Construction
2025-2026	Palma Sola Elementary	New Construction

Completed Media Center Renovations 2017-2023

- Abel Elementary
- Anna Maria Elementary
- Bayshore Elementary
- Buffalo Creek Middle
- Ballard Elementary
- Bayshore High
- Braden River Elementary
- Braden River High
- Braden River Middle
- Bashaw Elementary
- Daughtrey Elementary
- Freedom Elementary
- Gullett Elementary
- Haile Middle
- Harvey Elementary
- Horizons Academy
- Mona Jain Middle
- Johnson K-8
- King Middle
- Lee Middle
- Lakewood Ranch High
- Manatee Elementary
- Manatee High
- Miller Elementary
- Mills Elementary
- McNeal Elementary
- Myakka Elementary
- Nolan Middle
- Parrish Community High
- Palmetto High
- Prine Elementary
- PalmView K-8
- Rogers Garden Elementary
- SeaBreeze Elementary
- Sugg Middle
- Southeast High
- Samoset Elementary
- Tillman Elementary
- Williams Elementary
- Willis Elementary
- Witt Elementary

6.3 Projected Communication System Maintenance and Upgrades

VoIP Tele & PA Systems	Projected
ABEL ELEMENTARY	2028-2029
BASHAW ELEMENTARY	2028-2029
BAYSHORE ELEMNTARY	2028-2029
BLACKBURN ELEMENTARY	2028-2029
BRADEN RIVER ELEMENTARY	2028-2029
BRADEN RIVER HIGH	2028-2029
BRADEN RIVER MIDDLE	2028-2029
HORIZONS ACADEMY	2028-2029
KING MIDDLE	2028-2029
MANATEE ELEMENTARY	2028-2029
MANATEE HIGH SCHOOL	2028-2029
MATZKE SUPPORT CENTER	2028-2029
MCNEAL ELEMENTARY	2028-2029
MILLER ELEMENTARY	2028-2029
MYAKKA CITY ELEMENTARY	2028-2029
OFFICE OF STUDENT ASSIGNMENT	2028-2029
PALMETTO HIGH	2028-2029
PROFESSIONAL SUPPORT CENTER	2028-2029
SAMOSET ELEMENTARY	2028-2029
SCHOOL SUPPORT CENTER	2028-2029
SEA BREEZE ELEMENTARY	2028-2029
STEWART ELEMENTARY	2028-2029
TARA ELEMENTARY SCHOOL	2028-2029
TILLMAN ELEMENTARY	2028-2029
WAKELAND SUPPORT CENTER	2028-2029
WILLIS ELEMENTARY	2028-2029
WITT ELEMENTARY	2028-2029

VoIP Tele & PA Systems	Projected
ANNA MARIA ELEMENTARY	2028-2029
BALLARD ELEMENTARY	2028-2029
BAYSHORE HIGH	2028-2029
BUFFALO CREEK MIDDLE	2028-2029
DAUGHTREY ELEMENTARY	2028-2029
FREEDOM ELEMENTARY	2028-2029
GULLETT ELEMENTARY	2028-2029
HAILE MIDDLE	2028-2029
HARLLEE SPEC. PRGRMS	2028-2029
JOHNSON K-8	2028-2029
KINNAN ELEMENTARY	2028-2029
LAKEWOOD RANCH HIGH	2028-2029
LEE MIDDLE	2028-2029
LINCOLN MEMORIAL ACADEMY	2028-2029
MILLS ELEMENTARY	2028-2029
MOODY ELEMENTARY	2028-2029
MTC EAST	2028-2029
MTC MAIN	2028-2029
NOLAN MIDDLE	2028-2029
ONECO ELEMENTARY	2028-2029
PALM VIEW K-8	2028-2029
PALMA SOLA ELEMENTARY	2028-2029
PALMETTO ELEMENTARY	2028-2029
PRINE ELEMENTARY	2028-2029
ROGERS GARDEN ELEMENTARY	2028-2029
SOUTHEAST HIGH	2028-2029
SUGG MIDDLE SCHOOL	2028-2029

6.4 New School Sites: 2025 - 2028

Projected Opening Date	School Name – TBD
August 2025	North County (M1) Middle School
August 2025	SMR Academic Avenue (K1) K-8 School
August 2026	Artisan Lakes (E1) Elementary School
August 2026	Rye Ranch (E2) Elementary School
August 2027	Rangeland Parkway (H1) High School

6.5 ERATE – Network Infrastructure

2026-2027 Funding Year 29	School / Site Name	Historical Install Date	Projected Install Date
Phase 1	Barbara Harvey ES	2018-2019	2026-2027
Phase 1	Bashaw ES	2017-2018	2026-2027
Phase 1	Bayshore ES	2017-2018	2026-2027
Phase 1	Daughtrey ES	2017-2018	2026-2027
Phase 1	Harllee Center	2018-2019	2026-2027
Phase 1	Horizons Academy	2017-2018	2026-2027
Phase 1	Manatee ES	2017-2018	2026-2027
Phase 1	Matzke & Wakeland	2019-2020	2026-2027
Phase 1	Miller ES	2017-2018	2026-2027
Phase 1	Mona Jain MS	2018-2019	2026-2027
Phase 1	Moody ES	2017-2018	2026-2027
Phase 1	MTC – East Campus	2018-2019	2026-2027
Phase 1	MTC – Main Campus	2018-2019	2026-2027
Phase 1	Myakka City ES	2017-2018	2026-2027
Phase 1	Oneco ES	2017-2018	2026-2027
Phase 1	Palm View K-8	2017-2018	2026-2027
Phase 1	Palmetto ES	2017-2018	2026-2027
Phase 1	Parrish Community HS	2018-2019	2026-2027
Phase 1	Prine ES	2017-2018	2026-2027
Phase 1	Professional Support Center	2019-2020	2026-2027
Phase 1	Rogers Garden-Bullock ES	2017-2018	2026-2027
Phase 1	Samoset ES	2017-2018	2026-2027
Phase 1	School Support Center	2019-2020	2026-2027
Phase 1	Tillman ES	2017-2018	2026-2027

ERATE - Network Infrastructure

2027-2028 Funding Year 30	School / Site Name	Historical Install Date	Projected Install Date
Phase 2	Bayshore HS	2022-2023	2027-2028
Phase 2	Braden River HS	2022-2023	2027-2028
Phase 2	Braden River MS	2022-2023	2027-2028
Phase 2	Buffalo Creek MS	2022-2023	2027-2028
Phase 2	Lakewood Ranch HS	2022-2023	2027-2028
Phase 2	Manatee HS	2022-2023	2027-2028
Phase 2	Palmetto HS	2022-2023	2027-2028
Phase 2	Southeast HS	2022-2023	2027-2028
Phase 2	Haile MS	2022-2023	2027-2028
Phase 2	Johnson K-8	2022-2023	2027-2028
Phase 2	King MS	2022-2023	2027-2028
Phase 2	Lee MS	2022-2023	2027-2028
Phase 2	Lincoln Memorial MS	2022-2023	2027-2028
Phase 2	Nolan MS	2022-2023	2027-2028
Phase 2	Sugg MS	2022-2023	2027-2028

ERATE - Network Infrastructure

2028-2029 Funding Year 31	School / Site Name	Historical Install Date	Projected Install Date
Phase 3	Abel ES	2023-2024	2028-2029
Phase 3	Anna Maria ES	2023-2024	2028-2029
Phase 3	Ballard ES	2023-2024	2028-2029
Phase 3	Blackburn ES	2023-2024	2028-2029
Phase 3	Braden River ES	2023-2024	2028-2029
Phase 3	Freedom ES	2023-2024	2028-2029
Phase 3	Gullett ES	2023-2024	2028-2029
Phase 3	Kinnan ES	2023-2024	2028-2029
Phase 3	McNeal ES	2023-2024	2028-2029
Phase 3	Mills ES	2023-2024	2028-2029
Phase 3	Palma Sola ES	2023-2024	2028-2029
Phase 3	Sea Breeze ES	2023-2024	2028-2029
Phase 3	Stewart ES	2023-2024	2028-2029
Phase 3	Tara ES	2023-2024	2028-2029
Phase 3	Williams ES	2023-2024	2028-2029
Phase 3	Willis ES	2023-2024	2028-2029
Phase 3	Witt ES	2023-2024	2028-2029
(56) Total Sites – All Phases	**Estimated COST**	**N/A**	**2026-2029**
Phase 1	$2,300,000	2026-2027	
Phase 2	$2,450,000	2027-2028	
Phase 3	$2,350,000	2028-2029	

6.6 Server Infrastructure Refresh Plan

Fiscal Year	Data Center Servers	Data Center Storage	Historical Install Date	Estimated Cost
2024-2025	Server/Network Infrastructure	Enterprise Infrastructure Solution	2013, 2015-2018	$1,500,000
2025-2026	Maintenance & Warranty	Maintenance & Warranty	2024-2025	TBD
2026-2027	Maintenance & Warranty – Planned Evaluation – Server Performance	Maintenance & Warranty Planned Evaluation – Storage Performance	2024-2025	TBD
2027-2028	Maintenance & Warranty Planned Evaluation – Server Performance	Maintenance & Warranty Planned Evaluation – Storage Performance	2024-2025	TBD
2028-2029	Maintenance & Warranty Planned Evaluation – Server Performance	Maintenance & Warranty Planned Evaluation – Storage Performance	2024-2025	TBD

6.7 High School Sports Fields Sound System Upgrades

Baseball	Softball	Year	Football/Soccer/Track	Gym
		2023-2024		
Palmetto	Maintenance		Braden River	Bayshore
		2024-2025		
Manatee	Manatee		Maintenance	Maintenance
Braden River	Maintenance		Maintenance	Maintenance
		2025-2026		
Maintenance	Palmetto		Bayshore – Planned Evaluation Lakewood Ranch – Planned Evaluation Manatee Football Stadium - (Provided by Athletic Boosters) Planned Evaluation – Reference School Board Agenda Item Palmetto – Planned Evaluation	Braden River Lakewood Ranch Manatee Palmetto Southeast
		2026-2027		
Bayshore Lakewood Ranch Southeast Parrish Community	Bayshore Braden River Lakewood Ranch Parrish Community Southeast		Parrish Community Southeast	Parrish Community
		2027-2028		
Maintenance	Maintenance		Maintenance	Maintenance

6.8 School - Instructional/Administrator 4-Year Projected Laptop Refresh

2023-2024 (Completed)				
Abel Elementary	Bayshore High	Freedom Elementary	Manatee High	Southeast High
Bashaw Elementary	Braden River High	Haile Middle		
2024-2025				
Anna Maria Elementary	Braden River Middle	Myakka Elementary	Palm View K-8	Sugg Middle
Ballard Elementary	Dr. Mona Jain Middle	Palma Sola Elementary	Parrish Community High	Tillman Elementary
Barbara Harvey Elementary	Lee Middle	Palmetto Elementary	Seabreeze Elementary	Williams Elementary
Braden River Elementary	Manatee Elementary	Palmetto High	Stewart Elementary	Horizons Academy
2025-2026				
Bayshore Elementary	Blackburn Elementary	Buffalo Creek Middle	Daughtrey Elementary	Gullett Elementary
Johnson K-8	King Middle	Kinnan Elementary	Lakewood Ranch High	McNeal Elementary
Miller Elementary	Mills Elementary	Moody Elementary	Nolan Middle	Oneco Elementary
Prine Elementary	Rogers Garden	Samoset Elementary	Tara Elementary	Willis Elementary
Witt Elementary	SMR Academic Ave (K1)	North County Middle School (M1)		
2026-2027				
Artisan Lakes				
Lincoln Middle				
Rye Ranch (E2)				
2027-2028				
Abel Elementary	Bayshore High	Freedom Elementary	Manatee High	Southeast High
Bashaw Elementary	Braden River High	Haile Middle	Rangeland Parkway (H1)	
2028-2029				
Anna Maria Elementary	Braden River Middle	Myakka Elementary	Palm View K-8	Sugg Middle
Ballard Elementary	Dr. Mona Jain Middle	Palma Sola Elementary	Parrish Community High	Tillman Elementary
Barbara Harvey Elementary	Lee Middle	Palmetto Elementary	Seabreeze Elementary	Williams Elementary
Braden River Elementary	Manatee Elementary	Palmetto High	Stewart Elementary	Horizons Academy

6.9 School – Student – Chromebook Refresh

Model	Quantity	Projected Service Years	Projected Fiscal Year Refresh	Estimated Cost:	Google End of Life/OS Support
HP 11A G6 E – 10/19 – 6/20	6818/10774	2019-2023	2023-2025	$2,221,645.30	June 2029
HP 11A G6 T – 12/19-9/20	388	2019 - 2023	2023-2024	$138,290.96	June 2029
HP 11 CB 11A G8 A	61	2020-2024	2024-2025	$19,876.85	June 2029
HP 11/A G8/CEL – 5/20 – 7/21	11,216	2020-2024	2024-2026	$3,654,733.60	June 2029
HP 14A G5-A4/A6 – 1/20 – 12/21	90	2020 - 2024	2026-2027	$38,250.00	June 2027
HP 11A G8 E -1/21 – 4/21	12,000 (Lease-COVID-19-HPEFS-7/20)	2021-2025	2025-2026	$3,910,200.00	June 2029
HP 11 MK G9/MT81 - 7/21 – 12/22	12258	2021-2026	2026-2028	$3,994,269.30	June 2030
HP 11 G9 MTK – 12/21 – 4/23	1746	2021 - 2026	2026-2028	$568,934.10	June 2030
HP 11 G9 EE/EEN/MKG9M – 12/22 – 12/23	6,573	2023 - 2027	2027-2028	$2,141,812.05	June 2031
HP 11 G9 EE T – 8/23 – 1/24	1502	2023- 2027	2027-2028	$535,342.84	June 2031

6.10 Mobile Devices (Windows) – Estimated Refresh

2024-2026						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	EB 840 G2, G3, G4, G5	795	2018-2019	Teacher/Staff/Admin	EB 640 G10 16/256	$644,776.80
HP	EB 745/755 G5/G6	1167	2018-2019	Teacher/Staff/Admin	EB 640 G10 16/256	$946,483.68
2025-2027						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	EB 745 G6, PB 455 G6/G7, PB 640 G5	1119	2020-2021	Teacher/Staff/Admin	EB 640 G10 16/256	$907,553.76
HP	EB X360-Touch	116	2020-2021	Admin/Staff	EB X360 G10	$173,611.40
2026-2027						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	ProBook 11, X360 EE G5, G5	730	2021-2022	Staff/Student	EB 640 G10 16/256	$592,059.20
HP	EB 845 G7, 840 G9	92	2021-2022	Staff	EB 640 G10	$74,615.68

HP	PB 640 G8, G9 PB 650 G9	1701	2022-2023	Teacher/Staff	PB 640 G10 16/256	$1,379,579.04
HP	ProBook X360 435 G7. G8	77	2022-2023	Student	PB 640 G10	$62,450.08
HP	EB X360 1030 G G7	141	2022-2023	Admin/Staff	EB X360 1040 G10	$211,027.65
2027-2028						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	EB 640 G10	624	2023-2024	Teacher	EB 640 G10	$481,757.76
HP	EB X360 1040 G10	25	2023-2024	Admin	EB X360 1040 G10	$37,416.25

6.11 Desktop Devices (Windows) – Estimated Refresh

2024-2026						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	800 G3 DM	1979	2017-2018	Student/Staff	ED 800 G9 16/256 or ChromeFLEX OS	$1,396,560.51
2025-2027						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	705 G4 DM	1885	2018-2019-2020	Student/Staff	ED 800 G9 16/256 or ChromeFLEX OS	$1,602,250.00
2026-2027						
			N/A			
2027-2028						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	705 G5 DM	437	2020-2021	Student/P/Staff	ED 800 G9 16/256	$401,270.88
2028-2029						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	ED 800 G4/WKS TWR	181	2021-2022	Student/P/Staff	ED 800 G9 16/256	$166,201.44
HP	ED 800 G6	2082	2021-2023	Student/P/Staff	ED 800 G9 16/256	$1,911,775.68
2024-2028 Vocational/Media-TV/Special Programs/As Needed						
Manufacturer	**Model**	**Quantity**	**Fiscal Year – Purchase**	**Student/Staff**	**Replacement Device**	**Estimated Cost**
HP	Z Series	394	2020-2023	Student/Staff	Z Series/TBD	$788,000.00

6.12. Apple Devices (IPADS and MACS – Optional Device)

Manufacturer	Model	Quantity
Apple	iPad Pro 2nd Gen	5
Apple	iPad mini 2nd Gen	1
Apple	iPad Pro 3rd Gen	8
Apple	iPad Pro 4th Gen	201
Apple	iPad 4th Gen	3
Apple	iPad mini 4th Gen	1
Apple	iPad 5th Gen	4
Apple	iPad mini 5th Gen	10
Apple	iPad 6th Gen	39
Apple	iPad 7th Gen	43
Apple	iPad 8th Gen	97
Apple	iPad 9th Gen	520
Apple	iPad 10th Gen	1
Apple	MacBook Pro	21
Apple	MacBook Air	1
Apple	Mac Studio	2
Apple	Mac mini	2
Apple	iMac	42

6.13 Television Production Studio, Field Equipment, and IPTV Distribution System

Manatee Schools Television is developing a five-year capital plan to refresh technology in all TV Production studios starting in the 24-25 school year. This is subject to funding approval by the capital committee.

6.14 Elementary School Multi-Function Devices

School	Model	Type	Device Count	End Date	Estimated State Date	End Date	Estimated-New 5 Year Lease Total
Abel	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Anna Maria	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	2	6/30/2028	7/1/2028	6/30/2033	$12,405
Ballard	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 360i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$14,904
Bashaw	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Bayshore	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Blackburn	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Braden River	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Daughtrey	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 360i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$19,872
Freedom	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Gullett	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
	Bizhub 360i	B/W	2	6/30/2028	7/1/2028	6/30/2033	$9,936
Harvey	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	5	6/30/2028	7/1/2028	6/30/2033	$31,012

Kinnan	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 360i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$19,872
Manatee	Bizhub 550i	C	1	6/30/2028	7/1/2028	6/30/2033	$6,202
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
	Bizhub 750i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$10,040
McNeal	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Miller	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Mills	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	7	6/30/2028	7/1/2028	6/30/2033	$43,416
Moody	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Myakka	Bizhub C360i	C	1	6/30/2028	7/1/2028	6/30/2033	$6,824
	Bizhub 360i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$4,968
Oneco	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Palma Sola	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Palmetto	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
	Bizhub 750i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$10,040
Prine	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Rogers Garden	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607

Samoset	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Sea Breeze	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 450i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$15,998
Stewart	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$6,202
	Bizhub 360i	B/W	2	6/30/2028	7/1/2028	6/30/2033	$14,904
Tara	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 360i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$14,904
Tillman	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 360i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$14,904
Williams	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Willis	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Witt	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809

Planned Expansion Elementary School	**Model**	**Type**	**Device Count**	**Start Date**	**End Date**	**Estimated – New 2 Year Lease Total**	**Estimated Start Date**	**End Date**	**Estimated – New 5 Year Lease Total**
Artisan Lakes	Bizhub C550i	C	1	7/1/2026	6/30/2028	$7,857	7/1/2028	6/30/2033	$9,429
(Aug. 2026)	Bizhub 550i	B/W	4	7/1/2026	6/30/2028	$5,169	7/1/2028	6/30/2033	$24,809
Rye Ranch	Bizhub C550i	C	1	7/1/2026	6/30/2028	$7,857	7/1/2028	6/30/2033	$9,429
(Aug. 2026)	Bizhub 550i	B/W	4	7/1/2026	6/30/2028	$5,169	7/1/2028	6/30/2033	$24,809
						$26,052			

6.15 Middle School/K-8 Multi-Function Devices

School	Model	Type	Device Count	End Date	Estimated Start Date	End Date	Estimated – New 5 Year Lease Total
Braden River	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 360i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$19,872
	Bizhub 550i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$6,202
Buffalo Creek	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	2	6/30/2028	7/1/2028	6/30/2033	$12,405
	Bizhub 360i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$14,904
Haile	Bizhub c550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	5	6/30/2028	7/1/2028	6/30/2033	$31,012
Mona Jain	Bizhub	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Johnson K-8	Bizhub c550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
	Bizhub 360i	B/W	2	6/30/2028	7/1/2028	6/30/2033	$9,936
King	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Lee	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Lincoln Memorial	Bizhub C360i	C	1	6/30/2028	7/1/2028	6/30/2033	$6,824
	Bizhub 550i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$6,202
	Bizhub 360i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$4,968
Nolan	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
Palm View K-8	Bizhub C650i	C	1	6/30/2028	7/1/2028	6/30/2033	$13,360
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
Sugg	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809

Planned Expansion Middle/Combination Schools	Model	Type	Device Count	Start Date	End Date	Estimated - New 2 Year Lease Total	Estimated Start Date	End Date	Estimated – New 5 Year Lease Total
North County	Bizhub C550i	C	1	7/1/2026	6/30/2028	$7,857	7/1/2028	6/30/2033	$9,429
(August 2026)	Bizhub 550i	B/W	4	7/1/2026	6/30/2028	$20,674	7/1/2028	6/30/2033	$24,809
SMR Academic Ave*	Bizhub C550i	C	1	7/1/2023	6/30/2028	N/A	7/1/2028	6/30/2033	$9,429
(August 2025)	Bizhub 550i	B/W	3	7/1/2023	6/30/2028	N/A	7/1/2028	6/30/2033	$18,607
						$28,531			

*Devices for planned expansion obtained in 2023 refresh

6.16 High School – Multi Function Devices

School	Model	Type	Device Count	End Date	Estimated Start Date	End Date	Estimated – New 5 Year Lease Total
Bayshore	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	5	6/30/2028	7/1/2028	6/30/2033	$31,012
Braden River	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	6	6/30/2028	7/1/2028	6/30/2033	$37,214
Lakewood Ranch	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub C360i	C	1	6/30/2028	7/1/2028	6/30/2033	$6,824
	Bizhub 750i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$40,160
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
	Bizhub 360i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$4,968
Manatee	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	6	6/30/2028	7/1/2028	6/30/2033	$37,214
	Bizhub 360i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$19,872
Palmetto	Bizhub C550i	C	2	6/30/2028	7/1/2028	6/30/2033	$18,857
	Bizhub 750i	B/W	2	6/30/2028	7/1/2028	6/30/2033	$20,080
	Bizhub 550i	B/W	6	6/30/2028	7/1/2028	6/30/2033	$37,214
Parrish Community	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	7	6/30/2028	7/1/2028	6/30/2033	$43,416
Southeast	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	6	6/30/2028	7/1/2028	6/30/2033	$37,214
Horizons	Bizhub 550i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$6,202

Planned Expansion High School	Model	Type	Device County	Start Date	End Date	Estimated – New 1 year Lease Total	Estimated Start Date	End Date	Estimated – New 5 Year Least Total
Rangeland Parkway	Bizhub C550i	C	1	7/1/2027	6/30/2028	$7,857	7/1/2028	6/30/2033	$9,429
(August 2027)	Bizhub 550i	B/W	6	7/1/2027	6/30/2028	$31,011	7/1/2028	6/30/2033	$37,214
						$38,868			

6.17 District and Additional Sites – Multi-Function Devices

School/Site	Model	Type	Device Count	End Date	Estimated Start Date	End Date	Estimated – New 5 year Lease Total
Harllee	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$6,202
	Bizhub 360i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$4,968
Matzke	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
MTC Main	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$31,012
MTC East	Bizhub C360i	C	1	6/30/2028	7/1/2028	6/30/2033	$6,824
	Bizhub 360i	B/W	2	6/30/2028	7/1/2028	6/30/2033	$9,936
PSC	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	3	6/30/2028	7/1/2028	6/30/2033	$18,607
	Bizhub 360i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$4,968
SSC	Bizhub C650i	C	1	6/30/2028	7/1/2028	6/30/2033	$13,360
	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 750i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$10,040
	Bizhub 550i	B/W	4	6/30/2028	7/1/2028	6/30/2033	$24,809
	Bizhub 360i	B/W	2	6/30/2028	7/1/2028	6/30/2033	$9,936

Wakeland Support	Bizhub C550i	C	1	6/30/2028	7/1/2028	6/30/2033	$9,429
	Bizhub 550i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$6,202
	Bizhub 360i	B/W	1	6/30/2028	7/1/2028	6/30/2033	$4,968
							$2,137,021

6.18 District Printing/Duplicating (Print Services Center)

Manufacturer	Model	Lease End	Projected Lease/Maintenance Start	Projected Lease End	Estimated New 5 Year Lease Cost
Konica-Minolta	AccurioPress 6727P	February 2029	March 2029	February 2034	$189,475
Konica-Minolta	AccurioPress 6727P	February 2029	March 2029	February 2034	$189,475
Konica-Minolta	AccurioPress 6136P	February,2029	March,2029	February 2034	$201,760
Konica-Minolta	AccurioPress C4080	February 2029	March 2029	February 2034	$145,041
Konica-Minolta	Software	February 2029	March 2029	February 2034	$53,340
Konica-Minolta	Maintenance	N/A	March 2029	N/A	TBD
Printing Services Storefront	Software	February 2029	March 2029	February 2034	$97,180
					$876,271

SECTION 7
FUNDING PLAN

7.1 Major Funding Sources

The majority of funds utilized for the acquisition and support of technology come from within the district. Many of the figures provided below must be considered estimates as it is difficult to obtain precise figures when multiple funding sources are involved, when technology costs can vary, and when projecting into the future. The following are descriptions of the funding sources along with activities these funds support.

7.1.1 District Operating Budget - Information Technology Division

The staff costs for Information Technology (IT) and schools that have allocated Technology Lab Manager positions, and School Technology Support Technicians are generally funded from the operating budget. Other funding sources for staff positions may be applicable from year to year. These operating funds are considered recurring funds. Staffing allocation costs across these (4) cost centers to support Information Technology is responsible for most general fund expenditures.

Maintenance fees for district level software systems, and the cost for leasing telephony, data lines, and cellular services are also a part of the operating budget. A portion of operating funds is provided for software, technology related supplies, and for non-capitalized equipment. The IT Division consists of 4 cost centers: Information Technology, Printing & Duplicating, Property Records & Retention, and Student Demographics/Projections.

5 Year Budget (Historical):

Department	2021	2022	2023	2024	2025 (Pending Board Approval)
Student Demographics	$832,996.59	$1,100,416.99	$1,294,401.57	$1,185,792.70	$1,270,945.64
Information Technology	$7,546,083,59	$7,511,141.21	$8,568,344.82	$8,723,349.77	$8,912,304.30
Property Records	$314,506.30	$506,655.27	$937,822.57	$905,593.61	$439,578.40
Printing and Duplicating	$792,697.66	$855,139.88	$909,573.95	$914,746.83	$851,639.94

5 Year Budget (Actual Expense):

Department	2021	2022	2023	2024 YTD (6-30-24)	2025
Student Demographics	$786,534.50	$1,100,305.83	$1,219,460.16	$1,098,310.02	TBD
Information Technology	$7,484,195.92	$7,263,157.01	$7,328,369.03	$7,542,974.49,	TBD
Property Records	$298,094.02	$483,923.31	$361,410.24	$836,724.38	TBD
Printing and Duplicating	($9,030.49)	($10,588.92)	($14,109.52)	$757,475.48	TBD

7.1.2 District Capital Outlay Funds (Millage Funds and Sales Tax Proceeds)

A percentage of these funds are used to purchase technology equipment and to maintain/upgrade the technology infrastructure. These funds are reviewed and approved by the Capital Planning Committee annually and presented to the School Board for final approval.

Department	2025	2026	2027	2028	2029
Information Technology	$12,137,825.00	$12,551,201.37	$12,665,883.12	$12,992,992.17	$14,379,670.00
Printing and Duplicating	$495,817.00	$495,817.00	$495,817.00	$495,817.00	TBD

Capital Outlay Funds listed above are estimated and will be updated based on School Board approval of annual budget. These funds identified in the above table are specific to the budgets identified in the (2) cost centers listed.

7.1.3 E-Rate Funding

The district has successfully applied for E-Rate federal funds annually since the inception of the program (20+ years). The Category One service supports data transmission services and/or INTERNET Access. The Category Two Services supports internal connections, managed internal broadband services, and basic maintenance of internal connections as outlined in the Eligible Services List published annually by Universal Service Administrative CO. (USAC). These service types include critical eligible products, such as access points, routers, switches, and structured cabling.

This program continues to be a critical part of the district's funding of technology infrastructure and INTERNET services. Category One eligible services continue to be funded at 80%.

Starting in 2021-2022 (Funding Year 24) through 2025-2026 (Funding Year 28) the district's eligible E-rate available funds for Category 2 funding requests is estimated at **$7,766,168.00**. The district's financial obligation for eligible services is approximately **$1,553,233.60** (20%) during this first full budget cycle (FY2021-2025). The district is on track to utilize close to 100% of the allocated Category 2 funding available through Funding Year 2028.

ERATE Funding Year 2029 (2026-2027) Category 2 funding has not been determined at this time. It is anticipated the per student budget will increase beginning with funding year 2029. Current per student funding is $167.00. It is expected the district's financial obligation for eligible services will be 20% during this first full budget cycle (FY2026-2030). This section will be updated to reflect these changes when approval from USAC is received.

7.1.4 Additional Funding Sources

There are other sources of funding used for the procurement of technology including:

- Career & Professional Education (CAPE)
- Donations
- Grants

- IDEA-B (Specialized Equipment)
- School Internal Accounts
- School Discretionary FF&E
- Specialized Academic Instruction (SAI)
- School Improvement Plan (SIP)
- Title I and Title IV
- Florida School Recognition Funds
- Sales Tax Proceeds
- Other

These expenditures vary widely from year to year, therefore projected figures are not provided in this Technology Plan.

The Information Technology (IT) Division works within its allotted budget to support the technology needs of our district. The projected funding for network/hardware, support staff, hardware and software maintenance, capital outlay for equipment, and funding for software acquisition is needed to meet the challenging and changing needs of technology in the district.

SECTION 8
TECHNOLOGY ACQUISITION PLAN

8.1 Identifying Appropriate Technologies

The district continually reviews new technologies that can enhance and improve teaching and learning, in addition to, district business requirements.

The process will include system age identification, quantity of systems per site, student counts per site and staff counts per site. The goal will be to implement a sustainable refresh replacement plan that will ensure equitable up to date technology at all school and department sites using a centralized purchasing approach of approved technology.

Alignment to district goals, District Strategic Plan and standardization is a requirement. Standards have been set for computers, audio visual equipment (panels), interactive classroom technology, multi-function devices, network printers, networking, telephone infrastructure and handsets, public address systems, athletic field sound systems and peripheral devices.

8.2 Acquisition to Meet Widest Range of Student Needs

The School District of Manatee County (SDMC) District Leadership Team continuously reviews all educational software applications annually for effectiveness and targeted implementation.

8.3 Acquisition Timetable

The district maintains a centralized procurement process to purchase technology at all school and department sites. The goal is for the district to maintain funding and sustain the technology refresh cycle to ensure no school relies on irrelevant technology beyond its useful life cycle. The computer refresh plan is an annual priority.

The refresh plan will require the removal of outdated legacy systems and technology equipment that are no longer relevant and sustainable for SDMC students and staff. Additionally, these outdated systems create significant security vulnerabilities to the district. The districts Tech4Students program provides an alternative to the traditional surplus of legacy devices. This program has benefited over 1400+ students in the last 3 years.

Legacy devices that are not conditioned to provide to students through this program follow district procedures and board policies to surplus devices.

8.4 Acquisition Standards and Procedures

The district has developed procedures and standards for technology acquisition. Standards and procedures are reviewed each year for potential revision. Key examples follow:

- Computer Standards including, desktops, mobile devices, monitors, printers, digital displays, MFD and other peripheral devices used in the classroom and support departments.
- A standardization of network specifications, structured cabling including PA, telephony (VoIP) specifications and procedures.
- Manatee Schools Television department recommends AV solutions and equipment used in our schools. Changes are made each year based on repair history and price changes.
- All servers are managed by Data Center Services (DCS). DCS determines appropriate patches, upgrades, security vulnerabilities, and system hardening. Servers are purchased with three or five-year support agreements.
- Staff are required to submit service desk tickets to request services from the Information Technology Division.
- Future RFP/RFQs directly related to the acquisition of a new Enterprise Resource Planning System and Student Information System will require an outside consultant and/or subject matter expert(s) to thoroughly analyze district needs. Prior to engaging in this expenditure for an outside consultant, the Superintendent will request the School Board approve the expenditure for the outside consultant.
- SDMC will clearly explain benchmarks based upon RFP/RFQ that are expected in the responses, scoring criteria and how to evaluate each RFP/RFQ based on specific criteria.
- SDMC will develop negotiation plan for IT service provider contracts that encompass the full and complete scope of services, cost, deliverables, and penalties for failure to meet a specified and agreed schedule.

- Procurement at the lowest price consistent with desired quality in accordance with standards and following local, state, and federal procurement policies and statutes including ERATE requirements set by Universal Service Administrative CO. (USAC). USAC administers the Universal Service Fund under the direction of the Federal Communications Commission (FCC).
- Backup processes for IT systems that are identified as LEGACY replacement systems will be maintained to ensure that the replacement IT system and/or software is properly integrated and functioning.
- Major Information Technology Systems being considered for implementation in SDMC should have a proven K-12 footprint with a successful and documented record for delivering projects on time and on budget for similar services acquired by similar entities.
- Any service provider contract selected that contains provisions that deviate from the specifications included in RFP/RFQ must provide justified documentation on how the deviation did not compromise the competitive selection process or the desired outcome requested by the district.

8.4.1 ERATE Program Application Process

SDMC will follow the below listed steps and will incorporate any local procurement processes required by School Board policy when requesting E-Rate services:

1. Competitive Bidding
2. Selecting a Service Provider (most cost-effective provider)
3. Applying for Discounts
4. Application Review
5. Starting Services
6. Pay for discounted services or pay for services and invoice USAC for reimbursement.

See the Application Process Flowchart provided by the Universal Service Administrative Co.: https://www.usac.org/wp-content/uploads/e-rate/documents/Handouts/application-process-flow-chart.pdf. Source: www.usac.org.

8.4.2 – Acquisition Action Steps

The Information Technology Division follows the below procurement guidelines when purchasing Information Technology products. Purchasing Thresholds (quotes, solicitations, and board approval):

Federal Funds

- Micro-Purchases ≤$10,000: requester must determine if the price is reasonable based on price comparisons, actual prices paid for comparable items.
- Small Purchases >$10,000.00 but ≤$49,999.99: written quote from an adequate number of sources must be provided (2 to 3 written quotes).

Budgeted Funds

- <$20,000.00: requester must obtain verbal quotes, comments in the requisition should read "Telephone quotes obtained from vendor 1, vendor 2, and vendor 3 (use vendors' name). Records maintained at site. Records are to be maintained by the requester and are subject to review by the buyer or auditors.
- Between $20,000.00 and $49,999.99: provide three written quotes and attach to the requisition. If a bid is already in place a quote from the awarded Vendor only is required.
- $50,000.00 or higher: Contact the buyer to determine if a bid is already in place. If no bid is in place, buyer will collaborate with you to determine the best path forward to make the purchase. Options are to piggyback another school districts or public agency's bid or conduct our own bid. Please allow a minimum of 90-120 days to conduct a bid. Board approval is required on any purchase $50,000.00 or greater. Note: Approval to apply and accept a grant is not sufficient to make the purchase. If over $50,000.00, Board approval must be obtained, and a bid or piggyback will need to be executed to make the purchase.

Sole Source

- Contact the buyer to determine if a bid is already in place. Obtain a sole source letter from the supplier and forward the letter and the department justification of need to the purchasing buyer.
- The purchasing department will verify and seek necessary review and approval, including board approval if required. The sole source process will take a minimum of 15 days to complete.

8.5 Guidance for Decision-Making

The Information Technology Leadership (ITL) Team provides guidance and direction to all schools and departments on the purchase and implementation of technology products and services.

Technology projects, implementations, and initiatives are reviewed by the Chief Technology Officer prior to acquisition. The goal is to standardize whenever possible and provide the most cost-effective solutions for district and school initiatives while meeting the instructional needs of all schools.

SECTION 9
ACCESS

9.1 Equitable Access

Equitable access to technologies to support teaching and learning is accomplished by:

- The district has implemented a hardware refresh program based on available annual funding. This program will use student enrollment numbers, staff unit allocations, and annual site assessments to determine equitable access to technology resources to support teaching, learning, and assessment testing at all schools.
- A multi-year plan is included in this technology plan that provides all schools equitable access to networking infrastructure to ensure safe, secure, and efficient use of the INTERNET and INTRANET.
- Multi-year plan that provides updated technology and renovations to each school's media center.
- Interactive Digital Display Panel project for all academic classrooms.
- The District ESE department responds to requests from school staff and parents for assistive technologies. Laptop computers and special input/output devices are provided as appropriate after reviewing each individual case. Special software is also provided when needed. The ESE Department and IT Division staff work collaboratively together to ensure these requests are completed in a timely manner.
- All sites have INTERNET access to provide resources such as our district website, MYSDMC SSO, Student Information System, Business System, eLearning Manatee District Learning Management System and a variety of instructionally appropriate sites to support teaching and learning.
- The district's mass notification call out system provides direct communications to staff and parents. The system reports student absences and delivers important school or district information to the selected group of recipients.
- To reach all parents and community members, the Manatee Educational Television station broadcasts a variety of programs. School Board meetings are also broadcast live bi-monthly to keep the community informed.

- The district's upgraded VOIP/PA systems for all schools with additional crisis alert communication integration that meets the statutory requirements for Alyssa's Alert.
- MYSDMC FOCUS mobile application providing students, parents, and guardians with real-time access to grades and other important student resources.
- The district provides all school and department websites a framework that automatically checks against WCAG accessibility standards. Additionally, it automatically generates alternative formats for SDMC content that provides our users added flexibility, choice, and providing a better digital experience.
- Enhanced mass communications, text, and teacher communication tools to continue to improve district and school communications are used and being evaluated annually.

9.2 Acceptable Use Guidelines

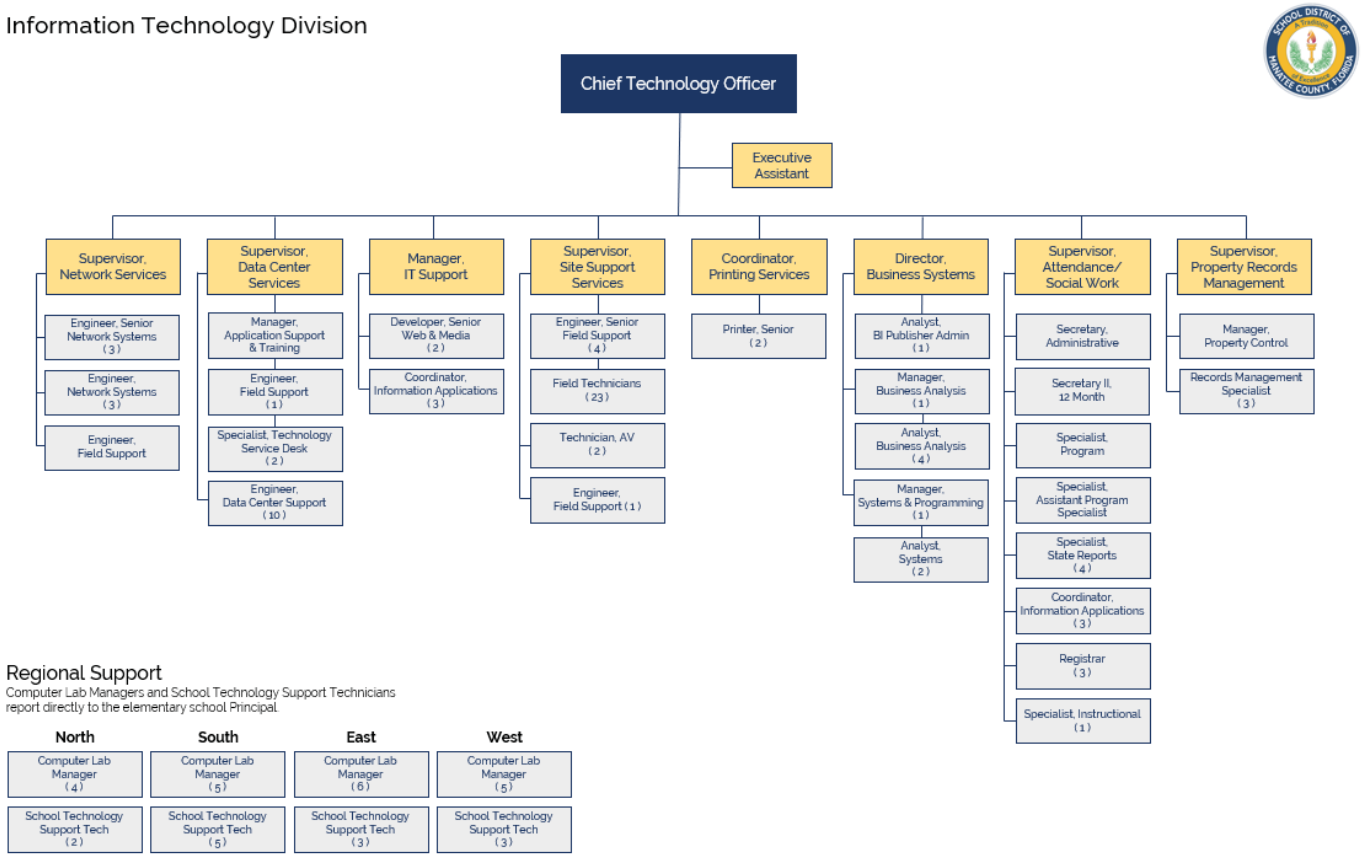
District Acceptable Use Guidelines have been approved by the School Board and have been electronically acknowledged annually by the employees of the School Board of Manatee County through MYSDMC SSO. The document protects the confidentiality of students, intellectual property rights, licensing agreements and addresses the legal/ethical standards for sharing resources with other educational entities (Appendix A).

A set of Website Guidelines have been developed to provide guidance to all sites publishing web-based documents. These guidelines are designed to keep students focused on instructional uses of web pages and to protect the integrity of the district (Appendix B).

SECTION 10
USER SUPPORT PLAN

10.1 IT Organizational Chart

Providing adequate technology support for teachers, staff, and students continues to be a focus area in the district's strategic plan.



View alternative format of IT Organizational Chart.

10.2 Network Support Services (NSS)

NSS is comprised of eight staff members. The team is led by the Supervisor of Network Support Services.

- 120 miles of district owned fiber
- 750 Network Switches serving 58 district sites
- 3,800+ Wireless Access Points
- Cyber Security Detection and Prevention
- Dual Failover GBPS Data Center Networks
- Dual GBPS INTERNET Service Providers
- Dual HOSTED Firewalls
- E-rate program
- Hosted Web Filtering
- Manage and configure over 7,000 telephony handsets
- Network Access Control
- Network Infrastructure Replacement
- Network Monitoring
- Public Address Systems (PA/Intercom)
- Site Structured Cabling
- VoIP Infrastructure

Enterprise network management tools have been implemented that enable a greater degree of remote monitoring and problem solving.

The workorder priority is:

- District-wide network issue
- School-wide network issue
- Building network issue
- Lab network issue
- Classroom network issue
- User network issue

Four members of the NSS team are assigned to one of four regions (East, North, South, West).

10.3 Data Center Services (DCS)

The Data Center Services (DCS) team is comprised of eleven staff members. The team is led by the Supervisor of Data Center Services and Manager, IT Support and Solutions Center. The team is responsible for all SDMC servers and storage monitoring, troubleshooting, backup and recovery, replacement of defective systems and upgrade of legacy enterprise equipment.

The team supports all district servers (physical/virtual) and storage systems located both at the School Support Center, the MCPS location and the cloud.

Additional Services Supported by DCS:

- Application Support
- Audit Compliance and Remediation
- Certification Testing
- Cloud Services
- Cyber Security
- Data Loss Prevention
- Directory Services and Group Policies
- eDiscovery
- Enterprise Email
- Enterprise Printer Administration
- File Transfer Automation
- Google G-Suite
- Identity Management
- Imaging
- JAMF Enterprise Device Management – Apple
- Magic Info - Samsung
- Management Destiny Resource Manager
- MYSDMC SSO
- Security Awareness
- SharePoint
- System Updates

Four members of the DCS team are assigned to one of four regions (East, North, South, West).

10.4 IT Support and Solutions Center (Service Desk)

The IT Support and Solutions Center team is led by our IT Solutions and Support Center Manager, Service Desk Specialists (2), Data Center Engineer (1) and Field Support Engineer (1). This team is an extension of the Data Center Services department. The support ecosystem extends throughout the entire Information Technology Division supporting over 100,000+ connected end point devices during any single instructional day.

In 2023/2024, Information Technology embarked on a journey to rebrand the traditional service desk model and modernize the services that IT provides to the school district. This new commitment leverages the framework that was established in the IT re-organization in 2020. The service level agreement support model will be implemented during the 2024/2025 fiscal year. Initial implementation started January 2024.

Service Level Agreements (SLA) Tiered Support Model:

A. Tier 1 (Service Delivery Connect): First point of contact, responsible for initial issue triage and basic troubleshooting. SLA for Tier 1 responses set at 15 minutes. Quick acknowledgment and initial assistance and resolution.
B. Tier 2 (Service Delivery Resolve): Complex issues that require in-depth technical expertise. SLA for Tier 2 responses set at 1 hour. Swift resolution of advanced technical problems.
C. Tier 3 (Service Delivery Expert): Reserved for the most challenging and critical issues that require deep expertise or collaboration with external vendors. SLA for Tier 3 responses set at 2 hours. This tier recognizes the complexity of these challenges.

This tiered support model allows IT to address challenges effectively at various levels of complexity. The model ensures that issues encountered by our users receive prompt and timely attention while also providing the necessary expertise for complex technical challenges.

Modernizing for Efficiency:

This transformation of services will now include the latest technological advancements. Our team will implement technologies such as appointment bookings with Microsoft, improved streamlined ticketing system and utilize built in AI tools to find solutions to critical issues that our end-user's encounter. This modernization will result in delivering faster and more efficient services, enhancing the overall user experience.

Evolving to Meet User Expectations:

We recognize in today's digital age, our users demand seamless, user-centric experiences. Our transition is an acknowledgment of this demand. We will be focused on our users' service experience throughout the entire solutions support experience.

Rebranding:

Our innovative approach to support our users demonstrates our adaptability and commitment to staying at the forefront of IT Service Delivery. This change signals to our staff and students that we are committed to providing the best IT service experience.

Streaming Resources for Strategic Growth:

Our annual commitment to continue to re-evaluate our IT resources and reallocate human and financial resources based on Superintendent and School Board approval allows us to focus on supporting our schools and departments to reach the strategic goals set by our Superintendent and School Board.

This transformation reflects our commitment to staying competitive, efficient, and user focused. Our goal is to be recognized as a K-12 leader in IT Service Delivery.

10.5 Site Support Services (SSS)

The SSS team has 37 team members. The team is led by the Supervisor of Site Support Services, Manager, IT Support and Training Services, and (4) Sr. Field Support Engineers. Twenty-Three Field Technicians are assigned directly to school sites supporting a total of 49 schools for all Tier 1 and Tier 2 site support services. Field Technicians are assigned to (7) high schools, (9) middle schools, (2) K-8, and 1 Field Technician supports Manatee Technical College. (4) Field Technicians are assigned to each of the 4 Regions to support elementary schools assigned to those regions. District Departments (PSC, SSC, Matzke, Wakeland) and other sites are supported by assigned regions.

The team also has (2) Sr. Web Media Developer and (3) Application Coordinators that are involved in strategy and implementation of new applications and ongoing administration and training of existing applications including the management and oversight of the School District of Manatee County website – www.manateeschools.net.

The Site Support Services team's responsibilities include, but are not limited to:

- Alyssa's Alert – Badging/User Management
- Centralized ID Badging Administration/User Management
- Centralized ID Badging Hardware Support
- Centralized Maintenance and Repair
- Crisis Alert School Mapping – HB 301 School Asset Management
- Custom INTRANET Interfaces
- Destiny Resource Manager Administration/User Management
- Digital Display Devices – Promethean and Samsung
- Documentation Standards and Management
- Enterprise Device Distribution
- Enterprise Printers/MFD – Support and Troubleshooting
- Forms Standards and Management
- Inventory Management
- IT Surplus Project Management
- IT Training and Support
- Magic Info - Samsung
- Mass Notifications Management
- Mass Notifications Training/User Management
- Performance Sound Systems – Cafeterias, Gymnasiums, Athletic Stadiums/Fields
- Peripheral Devices
- Raptor
- Website Management/User Management

10.6 Systems and Programming Services

The Systems and Programming Services team consists of ten staff members. The team is led by the Director, Business Systems and Business Analysis Manager.

- Business Systems Reports and Queries
- Business Systems Security
- Business Systems Third Party Vendor Support
- Business Systems Training and Support
- Cost Report Server Management
- MTC Campus Solutions
- SIS 3rd Party Vendor Support
- SIS Ad Hoc Reporting
- SIS Auto Provisioning
- SIS FLEIDS
- SIS FOCUS Support
- SIS PostgreSQL
- State Reporting - Staff

10.7 Student Demographics

The Student Demographics/Student Information System (SIS) team consists of 13 staff members. The team is led by the Supervisor of Student Demographics.

The team's responsibilities include, but are not limited to:

- Enterprise Scheduling
- FOCUS Gradebook
- FOCUS Student and Parent Portal
- FOCUS Training - Schools
- Home Education Services
- Primary Support - Registrars
- Project Digitize – Active Students – ScribFolders
- School Choice
- State Reporting
- Student Assignment
- Virtual Education Services

Currently, the team supports the district's 31 elementary schools, 9 middle schools, 2 K-8 schools, 7 high schools, 15 charter schools, 12 contracted or "special" sites, and 4 alternative school sites.

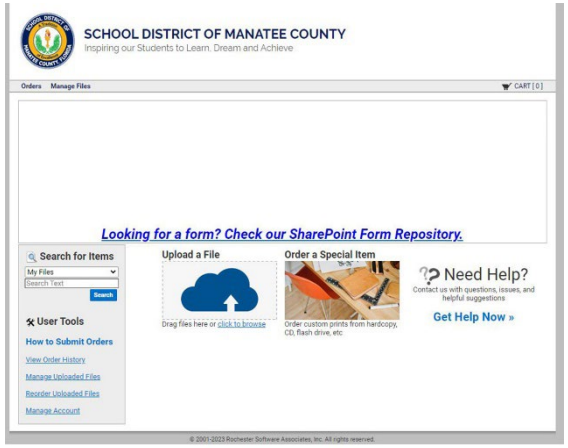
10.8 Printing Services

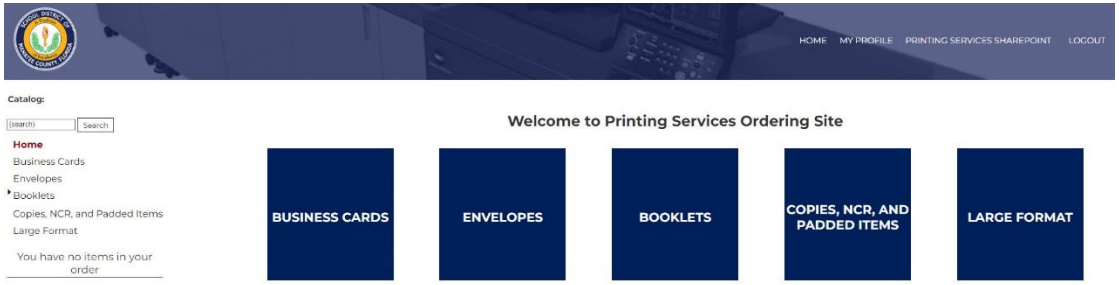
The Printing Services (PSS) team consists of 3 staff members. The team is led by the Coordinator, Print Services. The team's responsibilities include, but are not limited to:

- Copiers
- Enterprise Storefront Management
- Printers
- Printing Services and Duplicating

Currently, the team supports the district's 31 elementary schools, 9 middle schools, 2 K-8 schools, 7 high schools, 12 contracted or "special" sites, and 4 alternative schools.

In February 2024, the Printing Services equipment, customer-facing storefront, and web-to-print software was updated. Among other improvements, the Printing Services storefront was modernized, introducing a user-friendly interface with 5 basic tiles for streamlined navigation, replacing the outdated 15-year-old design and complex menu system.





10.9 Property Records

The Property Records/Records Management (PRRM) team consists of five staff members. The team is led by the Supervisor of Property Records/Records Management. The PRRM team is responsible for the management of archived student and administrative records, secure electronic transmission of active and archived student records, as well as the tracking and disposition of all tangible personal property district wide.

Areas of responsibility include but are not limited to:

- Annual Physical Inventory
- Creation and Update of Financial Assets - ERP
- Digitization and Maintenance of Student and Staff Records
- District Records Custodian
- Fulfillment of Requests – Student Records
- Inventory Transfers and Updates
- Processing of Electronic Transcripts - Alumni
- Recording of Acquisitions
- Records Management Liaison Officer (RMLO)
- Secure Storage
- Subpoena Service for Records
- Tagging of ALL Financial Assets
- Timely Destruction of Student and Administrative Records
- Training of School/District Level Personnel
- Transfer and Disposition – Surplus Property

This office ensures the timely destruction of student and administrative records in accordance with State retention guidelines.

10.10 Computer Lab Managers and School Technology Support Technicians (STST)

Computer Lab Managers (CLM) and School Technology Support Technicians are currently assigned at elementary schools only. The School Technology Support Technician position is 11 months and reports directly to the Elementary Principal.

CLM and STST follow all Information technology best practices and operating procedures and provide Tier 1 technology support to each assigned school. Issues are escalated using the IT Division Technology Services Delivery framework. Site Support Services Field Technicians for each region and the Sr Site Support Engineer provide additional support and serve as the immediate escalation contacts for each school.

Site Support Services provides information and documentation to the CLM and STS as changes in technology occur and provides opportunities for meetings throughout the year to discuss technology support, providing an environment to collaborate and share ideas.

Regional Technology Support Allocation

North Region		South Region		East Region		West Region	
Blackburn El	CLM	Abel El	CLM	Freedom El	CLM	Ballard EL	CLM
Harvey El	CLM	Bashaw El	SST	Gullett El	SST	Miller EL	CLM
Mills El	CLM	Bayshore El	SST	Manatee El	SST	Moody El	SST
Palmetto El	CLM	Braden River El	CLM	McNeal El	SST	Palma Sola El	CLM
Tillman El	SST	Daughtrey El	CLM	Myakka El	CLM	Prine El	CLM
Williams El	SST	Kinnan El	SST	Willis El	CLM	Rogers El	SST
		Oneco El	SST	Witt El	CLM	Sea Breeze El	SST
		Samoset El	CLM			Stewart El	CLM
		Tara El	SST				

10.11 MSTV

The MSTV team is responsible for airing approximately 2,000 program titles, and to broadcast satellite-received programming, training activities, and special events to create a level of equity in access to educational content among all schools in SDMC. The School Board of Manatee County workshops and meetings are broadcast and streamed live to citizens. Available at: https://www.manateeschools.net/mstv The MSTV studios are located on the Professional Support Center (PSC) campus. This department reports to the Director of Communications. Areas of responsibility include but are not limited to:

- 61 IPTV - Educational/Informational Channels
- Audio/Visual - Auditoriums
- Digital Signage – The Good News Channel
- MTCtv, Room S
- Schedules PSC/Wakeland
- School Based / Educational TV Studios
- Television Production Equipment

SECTION 11
STAFF TRAINING and PROFESSIONAL DEVELOPMENT PLAN

11.1 Increasing the Use of Technology in Classrooms and Media Centers

11.1.1 Technology Integration Training

Proficiency alone is inadequate. Teachers must be provided with support for learning how to teach differently and creating learning experiences for students not possible in the absence of technology.

A professional learning curriculum aligned with this goal, accompanied by the expectation for continuous improvement, must be developed or adopted and delivered in multiple modalities to increase the pedagogical capacity of our instructional staff.

The Information Technology reorganization plan in 2023 provided the opportunity to realign an IT Training Department that consists of a team of (2) high-quality Information Applications Coordinators that is vital to provide key IT training on new and existing applications and projects.

11.1.2 Computer Based Training

The district currently uses MyPGS to allow staff to register and receive on-line and in person training.

The continued identification of training needs and delivery systems that minimizes teacher time away from the classroom and provides cost-effectiveness remains a high priority.

The continued use of TEAMS is a critical training delivery method that has provided training opportunities that minimizes time away from the primary assigned cost center.

A needs assessment is conducted annually that surveys all instructional and support personnel to determine the types of training that are needed.

11.1.3 Enterprise Resource Planning – PeopleSoft HCM/FSCM Training

The Information Technology department implemented a new approach to PeopleSoft training for new staff members during onboarding. This approach ensured that specific courses were assigned based on their roles, guaranteeing that they received the necessary training for the District's Business System. Additionally, this

approach provided continued professional development training opportunities for existing staff members in PeopleSoft FSCM and PeopleSoft HCM.

Moving forward the Business Systems team supports the **Ready 2026 Strategic Plan,** Goal 3: Develop an innovative leadership development program and succession-planning model to attract and support quality school and district leaders.

Strategy 2: Develop high-quality PeopleSoft professional learning courses to improve efficiency.

To measure progress, two metrics have been established:

Metric 1: Maintain and enhance professional learning tools to include job aids, videos, and quick guides.

Metric 2: Establish PeopleSoft learning paths for specific job functionalities and ensure staff is trained annually.

The Business Systems team offers various resources to assist in achieving these objectives, including:

- District Staff are provided access to the SDMC Intranet PeopleSoft Training page, which offers a wide range of helpful resources. Included among these resources are over 600 categorized Job Aids that are tailored to specific modules, roles, and departments. The Intranet also contains an array of supplementary materials such as PeopleSoft Business Processes, Forms, Videos, Manuals, and various training sites. These resources are easily accessible and aim to enhance the training and knowledge of the staff.
- Members of the Leadership Team (managers and above) are identified during onboarding and are provided a hard copy resource document with relevant PeopleSoft Job Aids pertinent to their responsibilities.
- Business Analysts specializing in FSCM and HCM take a proactive approach by contacting Bookkeepers and Secretaries after their onboarding to discuss role-specific training opportunities.
- Whenever necessary, the Business Systems Team conducts tailored training sessions that cater to the specific needs of different departments. These training programs encompass both one-on-one sessions and group training. Following the training, typically a resource document is provided as a reference.

- More than 60 videos are available to assist users of the Business System. These videos are updated and modified whenever department leadership or mid-users introduce new business processes and procedures.
- Within 48 hours after the date of hiring, the Business Systems Team will send a comprehensive email to all new employees. This email will contain detailed instructions regarding the various courses available to them through MyPGS platform.

The main objective is to provide a comprehensive strategy that emphasizes the provision of effective training for PeopleSoft, covering the fundamental skills necessary for daily job tasks. Moreover, this approach aims to contribute towards the objective of cultivating creative and forward-thinking leaders within the organization and supporting school and district leaders.

11.1.4 Security Awareness

Information Technology has developed a comprehensive training program that addresses multiple areas of concern related to Information Technology and Security Awareness. Annually, all SDMC users are required to complete specific Security Awareness Courses. These courses generally range from 5 to 30 minutes in length covering multiple course titles.

Additionally, we have identified "user groups" that are required to complete additional security awareness courses throughout the year based on their specific role in our organization and to ensure we keep security awareness relevant and that we are reminded that each user plays a critical role in securing our student and staff data.

Examples of "user groups" are listed below:

- All Staff
- High Risk
- Information Technology
- Senior Leadership

Examples of Course Titles that are required based on assigned user groups are listed below:

- Danger Zone
- Data Security
- Email and Phishing
- Passwords
- Protecting Privacy Under FERPA
- Ransomware and Bitcoin with Quiz
- Understanding URLS
- Working Remotely

Information security policies are critical to safeguard our data systems, including hardware, software, and the personal information we collect, store, and transmit throughout the district. Understanding potential security threats results in greater awareness and protection for both the district and employee data.

11.1.5 ADA Compliance Training

The Information Technology division is bringing attention to the importance of creating and supporting ADA accessible documentation. A course has been developed addressing the how and the why of creating and viewing ADA accessible documentation. The course is offered to all School District of Manatee County staff at a minimum of one time a month and is offered in different formats to meet different training and scheduling needs.

11.1.6 Information Technology - Professional Development

Information Technology Leadership (ITL) requires all IT staff complete a series of courses within the first 30 days of hire. All IT new hires are required to complete an IT Orientation that is designed to provide a strong foundation and in-place coaching for consistent and successful onboarding.

Training tracks are then assigned based on the IT Staff members department and/or position. Examples of courses are listed below:

Professional Development Courses

- Customer Service Skills for Techies
- GSuite Management
- Intercom and Bell Scheduling
- Introduction to Microsoft Teams
- IT Dashboards
- IT Staff Orientation
- MECM and Active Directory
- Microsoft Outlook
- MySDMC Service Desk – Intro for Technicians
- People Skills for IT Professionals
- Phone and User Portal
- Promethean- Basic Training and Support
- Samsung-Basic Training and Support
- Scrib Overview/Scanning
- Surplus Procedures

11.1.7 Training Labs

There are four computer labs available within the district dedicated to training: one at the Professional Support Center, two at Wakeland Support Center and one at the School Support Center.

11.2 Professional Learning

The goal of a "high quality education" is embedded in the state's constitution. Experiencing such an education requires a high-quality professional development system for teachers, school leaders and staff. Our system consists of inter-related policies and practices that support professional learning.

The School District of Manatee County provides research-based learning opportunities, programs, and resources to build capacity for a highly functioning workforce with the shared responsibility of increasing student achievement. Employees access the intranet website to access the Professional Learning calendar and professional learning opportunities categorized by Learning by Role, Learning by Topic, and Learning by Libraries.

URL: https://www.manateeschools.net/Page/2157

11.3 Leadership Development Programs

We seek to develop dedicated school-based leaders who:

- Commit to ongoing improvement toward student achievement.
- Establish positive learning environments.
- Foster positive professional relationships
- Build a culture of trust.
- Communicate clearly.
- Nurture teacher success.

Aspiring Leaders - The Aspiring Leaders program is a Level I Certification program designed to prepare instructional leaders for the Assistant Principal Pipeline.

During the year-long program, participants may earn 60+ Inservice Points through face-to-face and online components.

Assistant Principal Pipeline - The Assistant Principal Pipeline is a posted position for those interested in applying for an Assistant Principal position here in Manatee County seeking an interview. Applicants must hold a state certification for Educational Leadership and have 3 or more years of successful teaching experience with a minimum of 2 years of leadership experience.

In-county applicants are strongly encouraged to complete the Aspiring Leaders program to be eligible to apply for the Assistant Principal Pipeline. Out of County and Out of State applicants who meet pool requirements are welcome to apply.

Level II Principal Development - The Level II Principal Certification program is designed for Assistant Principals with at least 3 or more years' experience, currently employed by SDMC, who are seeking Level II certification to become a Principal.

Entrance into the program is by invitation from the Executive Directors. If selected, participants will attend the Gulf Coast Partnership (GCP) Resident Program at the University of South Florida in Tampa. Candidates who successfully complete the Level II Principal Certification program will be eligible to apply for the Principal Pipeline positions.

Email profdvt@manateeschools.net for more information regarding qualifications and requirements.

11.4 New Educator Development

We provide support and developmental opportunities to educators entering the field and teachers new to SDMC. Our comprehensive induction program includes partnerships between school sites, building personnel, and professionals within the Instructional Division. Contact: **profdvt@manateeschools.net** for more information.

11.5 Other Sources of Training and Technical Assistance

The following is a list of additional sources of ongoing training and technical assistance available to teachers and administrators:

- University of South Florida's Center for Instructional Technology (FCIT)
- Florida Digital Educator Program
- Florida Educational Technology Conference (FETC)
- State College of Florida (SCF) courses
- Florida Leadership Network training for Principals
- University of Central Florida's Instructional Technology Resource Center
- FLDOE Office of Educational Technology
- Florida Diagnostic and Learning Resources System (FDLRS)
- International Society for Technology in Education
- Vendor provided training based on Superintendent or Board Approval of products and services.
- LinkedIn Learning

SECTION 12
PROGRAM EVALUATION

12.1 Evaluation of Integration Process

The impact of instructional technology can only be measured against its impact on teaching and learning. Therefore, the district's goal was to adopt, implement, and sustain a measurement tool or rubric and incorporate its use into walkthrough and classroom observation instruments. To ensure meaningful data and inter-rater reliability, training on applying the selected rubric to learning events was developed, implemented, and delivered to all administrative staff charged with evaluating classroom instruction.

12.2 Evaluation System

The School District of Manatee County (SDMC) promotes student achievement by helping teachers and administrators excel in the school and classroom. Teacher effectiveness is the most influential factor to positively impact student achievement. Our goal is to promote innovative and effective teaching in every classroom. Supporting teachers to excel as professionals through a focus on a site-based system of support at every school, students will achieve more and be prepared for life after graduation.

URL: https://www.manateeschools.net/Page/7484

12.3 Impact on Achievement

A combination of assessment tools and strategies will be used to determine the impact of the technology plan on student achievement, as defined in the Florida Standards. The assessment plan will focus on the following areas:

- The ability of students to demonstrate basic technology operational knowledge and skills.
- The ability of students to utilize technology resources for learning, productivity, and creativity as applied to meeting subject area specifications defined in the Florida Standards.
- The ability of students to utilize technology to communicate ideas and work collaboratively to support individual learning and contribute to the learning of others.
- The ability of students to utilize technology to gather, evaluate and ethically use information from a variety of sources and media.

- The ability of students to use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions utilizing appropriate technology tools and resources.
- The impact of technology utilization on student achievement as measured by the Florida Assessment of Student Thinking (FAST).
- Demonstration of understanding human, cultural, and societal issues related to technology and practice legal and ethical behavior.
- The ability of teachers to utilize technology in student learning experiences.
- The ability of teachers to utilize technology in the process of differentiating instruction to accommodate individual learning styles and modalities.
- The utilization of technology in the assessment of student performance including diagnosis (screening), monitoring (formative assessment), and examination of mastery (summative assessment) strategies. Annually, our schools will use data from the assessment plan to help drive staff development and move goals and objectives forward.

SECTION 13
STUDENT AND STAFF DATA PRIVACY

The School District of Manatee County, Fl, and the Information Technology Division is committed to Student and Staff data privacy. The school district is a member of the Student Data Privacy Consortium (SDPC) and the Florida Student Privacy Alliance (FSPA). The annual membership is currently funded by the Florida Department of Education.

The SDPC is a unique collaborative of schools, districts, regional, territories, and state agencies addressing the growing data privacy concerns. The school district's Chief Technology Officer is also a member of the Florida Student Privacy Alliance Committee. The FSPA currently has 51 of the 67 public school districts participating with over 1,000+ agreements statewide.

The FSPA is a collaboration of Florida school districts that share common concerns around student privacy. The goal of the FSPA is to set standards of both practice and expectations around student privacy. This enables all vendors and schools to have common expectations when implementing any online application and entering into an agreement without having to renegotiate terms in every new instance. Visit the FSPA: https://sdpc.a4l.org/view_alliance.php?state=FL

Source: https://privacy.a4l.org/

SECTION 14
VENDOR RISK ASSESSMENT

In January 2023, the Information Technology Division implemented a vendor risk assessment review process that resulted in the process summarized below. Annually, a scheduled service desk preventive maintenance task has been created and will trigger a review process for annual renewals. New agreements, contracts, RFP, RFI, RFQ and requisitions are processed and reviewed prior to Superintendent recommendation and School Board approval. The Information Technology Pre-Vendor Application form is completed (Intranet Access) IT_MIS4101202.pdf for all new vendors.

Follow the process outlined below prior to submission for board agenda review:

1. Search for vendor.
2. Execute process on vendor in risk assessment platform.
3. Send Cyber Security short form questionnaire to the contact provided by Business Systems or Procurement
4. Critical/High issues are to be remediated or responded to.
5. SOC Type II required. Request annual. Acceptable every two years. SOC Type I/Type III report may be substituted in some instances.
6. Response should explain why an issue cannot be remediated:
    a. Responses will be reviewed by Information Technology Cyber Incident Response Team/Committee
    b. If necessary, the report will be sent to contracted cyber security vendor for review and response.
7. If the vendor answers "YES" to Vendor Question #1 (Process), provide a Data Custody Checklist.

Renewal agreement process occurs annually.

1. Execute process on vendor in risk assessment platform.
2. Send cyber security short form questionnaire to the contact provided by business system or procurement department.

3. Critical/High issues are to be remediated or responded to.
4. SOC Type II required. Request annual. Acceptable every two years. SOC Type I/III may be substituted in some instances.
5. Response should explain why an issue cannot be remediated.
    a. Responses will be reviewed by Information Technology Cyber Incident Response Team/Committee
    b. If necessary, the report will be sent to contracted cyber security contact for review and response.

Requisitions to be approved by CTO through business system:

1. CTO will contact DCS to kick off process if assessment is required.
2. Requisition will be pushed back until the process is completed.
3. Execute process on vendor in risk assessment platform.
4. Send cyber security short form questionnaire to the contact provided by business system or procurement department.
5. Critical/High issues are to be remediated or responded to.
6. SOC Type II required. Request annual. Acceptable every two years. SOC Type I/Type III report may be substituted in some instances.
7. Response should explain why an issue cannot be remediated.
8. Responses will be reviewed by Information Technology Cyber Incident Response Team/Committee
9. If necessary, the report will be sent to cyber security contractor for review and response.

Vendor Risk Assessment Review:

1. Purchasing team members and/or Superintendent Leadership Team members can request a vendor risk assessment be completed by Information Technology.
2. This review process can take an estimated 4-6 weeks depending on the scope of the project and vendor response. This review and approval process is required before any purchase order is issued to vendor.

3. Documentation of the review and approval/denial will be uploaded to the vendor risk management platform.

Applicable Florida Statutes and Regulations:

- FS 119 – Public Records
- Rule 6A-1.0955, FAC – Education Records
- HB 7055 – Cybersecurity Reporting, Standards, and Training for Local Governments s.282.3185, FS
- HB 7057 – Public Records Exemption for Critical Infrastructure and Cybersecurity Information s. 119.0725, FS

SECTION 15
FLORIDA DEPARTMENT OF EDUCATION – DIVISION OF TECHNOLOGY AND INNOVATION

Data Systems URL: https://www.fldoe.org/accountability/data-sys/

Database Manuals URL: https://www.fldoe.org/accountability/data-sys/database-manuals-updates/

APPENDIX A
INFORMATION TECHNOLOGY/RELATED DEPARTMENT POLICIES

1. **Students – 5136 Wireless Communications Devices**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EF8258AF

2. **Students – 5136.01 Technology Resources and Other Electronic Equipment**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EF8258AF

3. **7300 – Property Custodianship**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=APMM8C55999B

4. **7310 – Disposition of Surplus Property**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=BFYNAG5C2695

5. **7320 – Acquisition, Removal, Disposal, Sale, or Exchange of Major Tangible Property**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=BFYNAH5C2699

6. **7450 – Property Inventory**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=B7734H7595F9

7. **7530 – Lending of Board-Owned Equipment**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=APMM8R5599A8

8. **7540 – Technology**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=BFYNAJ5C269E

9. **7540.01 – Technology Privacy**
   https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EH8258B2

10. 7540.02 – Web Content, Services, and Apps
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EJ8258B3

11. 7540.03 – Student Technology Acceptable Use and Safety
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EK8258B4

12. 7540.04 – Staff Technology Acceptable Use and Safety
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EL8258B6

13. 7540.05 – District-Issued Staff E-Mail Account
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EM8258B7

14. 7540.06 – District-Issued Student E-Mail Account
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EN8258B9

15. 7542 – Access to District Technology and/or Information Resources From Wireless Communication Devices
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EP8258BB

16. 7543 – Utilization of the District's WEBSITE and Remote Access to the District's Network
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EQ8258BD

17. 7544 – Use of Social Media
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=B7734J759604

18. 8305 – Information Security
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=AWH5EF8258AF

19. 8310 – Public Records
https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=APMM965599B5

20. **8315 – Information Management**
    https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=BFYNAL5C26A6

21. **8320 – Records Management**
    https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=APMM985599B7

22. **8330 – Student Records**
    https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=D4SJTS4EBCD1

23. **8350 – Confidentiality**
    https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=B7734L75960D

24. **8606 – Use of Wireless Communication Devices by District School Bus Operators**
    https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=APMM9U5599CB

25. **8625 – Ban on Texting While Driving**
    https://go.boarddocs.com/fl/mancofl/Board.nsf/goto?open&id=ATQNBZ5EB752

APPENDIX B
WEBSITE GUIDELINES

The goal for the School District of Manatee County web presence is to leverage technologies that appropriately, consistently, and safely engage and inform our community, staff, and students online.

The web presence is to consist of the following components:

1. District website with Department sections
2. School websites
3. Internal websites (Intranet)
4. Mobile device specific websites
5. Learning Management System website
6. Social Media integration
7. Ancillary (third-party) website integration

In development and acquisition of these components the following standards will be required:

1. Seamless integration for the end-user where feasible
2. Low technical point of entry for content creators
3. Device and Operating System agnostic applications
4. Consistency in design and user interface where possible
5. Scalability and future-proofing
6. Security and standards compliance
7. Accessibility as defined by Section 508 and the US Department of Education's Office of Civil Rights.

To address these standards, the district will utilize an Enterprise Community Engagement Suite, the eLearning Manatee LMS and Microsoft SharePoint (INTRANET) as its primary web platforms for online communication and public/parent/student/staff interactions, whenever appropriate.

Additional allowances will be evaluated on a case-by-case basis through requests submitted using the Technology Service Desk application.

Oversight

Implementation/governance will be managed under Site Support Services of the Information Technology Division.

Administrative responsibilities will fall into the following user groups:

1. Super Admin/Web Developer - Access to control entire site, code development, integration, user management, establish/monitor design & content guidelines, and top-level training
2. Site Super User/Web Editor – Access to edit School or Department website, monitor compliance to design & content guidelines; may have user management and local training
3. Content Creators – Access to specific content areas to create and curate content
4. Authenticated End Users – Read access and ability to interact with content and other users
5. Non-Authenticated End Users – Read only access

Site Super User(s) will be chosen by the Department Manager or school Principal. It is recommended that multiple Super Users be chosen for each site for the purposes of intellectual redundancy.

One Super User should be designated as the primary contact for each site. Initial training and continued professional development/training as directed by Information Technology is required in order to maintain this role.

A design specification guideline, and template(s) where appropriate, will be drafted to promote consistency in branding and user experience across all district sites.

Content

All public-facing website content shall adhere to design guidelines and be created within district-supported content management system (CMS), unless technical or other limitations apply.

All website and intranet content shall follow the Accessibility Standards as outlined in the following Intranet location: https://manateecountyschools.sharepoint.com/sites/TKT/SitePages/IT-Accessibility.aspx.

All student-facing instructional content shall be created in and contained by the district-supported Learning Management System (LMS), unless technical or other limitations apply.

All staff-facing website content shall adhere to design guidelines and be created within district-supported internal websites (Intranet), unless technical or other limitations apply.

Exceptions to usage of the CMS, LMS or Intranet platforms must be authorized by the Information Technology Division/ Chief Technology Officer.

Staff shall be prohibited from maintaining third-party platforms for public/parent/student/staff communications on behalf of the district or a school without prior district approval. Examples include social media sites, class pages, course content, club activities and staff learning communities. Staff are encouraged to use the district-supported CMS, LMS and Intranet for these purposes.

All content shall conform to school board policies, established school guidelines and copyright laws, and shall not violate federal, state, or local laws.

All content shall adhere to the SDMC Electronic Communications Acceptable Use Policy.

All content shall be academic, school or department related. Advertising or commercial use other than recognition of our school business partners is prohibited.

Servers, software platforms, data connections, virtual and/or physical equipment shall not be used to store, transmit or process any functions other than legitimate educational uses and purposes appropriate, authorized by, and specific to the respective sites/programs. The use of technology shall be consistent with existing policies and procedures.

All users (Web Developer, Site Super User, Content Creator, Classroom Teacher) shall be responsible for ensuring that website content they publish is appropriate, timely, accurate and functional (i.e. hyperlinks).

Classroom Teachers shall be responsible for monitoring compliance of student-contributed content on LMS courses and/or third-party websites that they have management responsibilities for.

The district shall provide monitoring and reporting tools for compliance with ADA and Section 508 guidelines via a reporting and remediation web governance suite.

Privacy of Student Information – Directory Information

Some information in school records is not confidential and may be released without parental consent. Known as "directory information", it includes the following:

1. Full legal name
2. The image or likeness in pictures, videotape, film or other medium
3. Dates of attendance
4. Major field of study
5. Participation in officially recognized sports and activities
6. Height and weight of athletic team members
7. Degrees and awards received
8. Most recent previous educational institution attended
9. Subsequent educational institution attended
10. Academic work intended for publication or display

If parents do not want directory information released, they must notify the Principal in writing no later than September 15 of each school year or within 30 days of receiving the annual notice. NOTE: Objecting to the release of directory information may result in the student's name, photograph and other directory information being excluded from the yearbook, sports programs, and other school publications.

Permission must be obtained from staff members prior to displaying their photograph or information. A list of those who do not wish their photos to be published shall be kept on file.

No web content should publicly divulge contact information or personally identifiable information about students other than the directory information. No web content should allow the public to contact a student directly.

Copyright

Website content must conform to copyright and intellectual property laws. The author of the web page must not use copyrighted materials without permission. The fair use doctrine (Section 107-118, Title 17 US Copyright Law) is a guideline for limited non-commercial use of copyrighted works and not an infallible defense for use of copyrighted works without permission.

APPENDIX C
DIVISION 17B-27B INTEGRATED COMMUNICATION SYSTEM

MCSD's IT Department furnishes the network equipment for CM installation and patching.

All underground pipes in the MDF and IDF rooms shall be permanently labeled with source and destination room numbers for each pipe.

Provide one 4 post server rack in the MDF Room.

Do not use coaxial cable.

OM4 Multimode fiber optic cable will be used to connect communication closets with each other. All fiber optic cable will be home run from each communication closet to the main distribution frame without splicing or cross-connections. Category 6A UTP cable will be used between the communication closets and the communications station outlets. A single manufacturer's product will be used for all like system components.

Upon completion of the GMP, the CM will provide quantities of telecommunication outlets (data drops) to the Project Director. This information will be provided to and coordinated with IT for ordering network equipment.

Fiber Optic Patch Panels: All communication closets shall terminate fibers with LC type ceramic connectors manufactured by Belden or approved equivalent.

Fiber Optic Cable: Each outlying IDF communication closet will have one pair multimode fiber optic cable for every 48-station cable drops per closet, plus three additional pairs of each type for future growth. The minimum number of single mode and multimode pairs per closet will be six of each type. The cables will be home run to the MDF closet without splices or cross connects and will be rated for the environment in which it is installed.

Fiber Optic Patch Cables: Contractor shall supply one fiber optic jumper/patch cords for each termination in each communication closet.

Patch cords shall be two meters long with LC-type ceramic connectors on both ends.

Station Outlet Patch Panels: Category 6A patch panels shall consist of RJ45 non-keyed modular jacks with all 8 pin positions prewired to self-contained 110D type IDC blocks. Patch panels shall be 24 or 48 port and manufactured by Belden or prior approved equivalent.

Station Outlet Cables: Terminate in EIA-568-B configuration. All cables will be Category 6A UTP and shall be continuous from each communications outlet to the patch panel without splices.

Station Outlet Patch Cables: Contractor will provide one station outlet cable and one IDF communication closet patch cable for every data drop. Provide 25% of cables 3'-0" long, 25% of cables 5'-0" long, 25% of cables 9'-0" long and 25% of cables 15'-0" long. Contractor shall provide manufacturer terminated patch cables. Acceptable manufacturers include: Belden or equivalent approved by District IT Department.

Data Cables: All data cables shall be Yellow Category 6A, consisting of 4 pair, 24 AWG copper, 8 pos, 8 conductors.

Station Outlets: Classroom Category 6A communications outlets shall consist of a single gang faceplate with three non-keyed RJ45 modular to 110 type inserts. Classrooms will have three of these communication outlets per room to be located on opposite walls. One outlet is incorporated into the Digital Display detailed elsewhere in this document.

WAP Outlet: Install two Category 6A communication cables outlet per classroom. The cables are to be located in the center of each room, terminated with a non-keyed RJ45 modular to 100 type inserts, coiled with 20' of slack and tie wrapped to the ceiling structure one foot above the ceiling. Place the following label ("WAP-Room #") on the ceiling grid where the cables are located using a machine generated label. Install two Category 6A communication outlets (each with two cables) in the administrative area, cafeteria, and gymnasium. The cables are to be located at opposite ends of each building/room, terminated with a non-keyed RJ45 modular to 100 type inserts, coiled with 20' of slack and tie wrapped to the ceiling structure one foot above the ceiling. Place the following label ("WAP-Room #") on the ceiling grid where the cable is located using a machine generated label. If the structure is built with an open ceiling, the WAP outlets are to be installed on sidewalls at the same level as the ceiling support structure.

Grounding Bus Assemblies: Provide ground bus assembly with lugs in each communication closet and to every equipment and relay rack.

There are to be no floor communication outlets.

All office and storage rooms shall have one Category 6A communication outlet consisting of a single gang faceplate with three, non-keyed, RJ45 modular to 110 type inserts.

Each Cafeteria Manager's office shall have one, Category 6A, single gang faceplate communications outlet with three non-keyed RJ45 modular to 110 type inserts. Each Cafeteria point of sale (POS) station location shall have one, Category 6A, single gang faceplate communications outlet with two non-keyed RJ45 modular to 110 type inserts. All station cables are to home run to the closest Communication Closet.

The Custodian's Office shall have one Category 6A single gang faceplate communications outlet with three, non-keyed, RJ45 modular to 110 type inserts.

Each Mechanical Room shall have one Category 6A single gang faceplate communications outlet with three, non-keyed, RJ45 modular to 110 type inserts.

Modular jacks shall have a 45-degree downward tilt and shall be interchangeable with removable circuit labels. All jacks shall be white in color and be labeled at both ends.

Location of communication outlets will be determined by the IT Department and are not to be located under Digital Displays, next to sinks, or within five feet of doorways. Duplex electrical outlets shall be installed next to every communications outlet. Electrical outlets are needed next to the ceiling "WAP" outlet for additional technology.

Self-supporting 19" x 7' tall freestanding racks, having standard EIA hole pattern on front and rear flange with overhead support cross members and front mounted wire management panels.

Contractor will provide 20 - 12-24 pan head mounting screws with each rack for the mounting of electronic equipment.

Contractor shall provide one, multi-outlet, surge protected receptacle strip for each rack. Unit shall be 19" rack mount, six outlets, and circuit breaker with 6'-0" line cord.

The contractor will install a 7' high, 4 post server rack in the MDF next to the equipment racks to include two front and two rear adjustable rail tracks for the mounting of servers. The rack will be securely mounted to the floor and grounded to the building system.

Contractor shall provide ladder type cable runway tray sections and accessories in all communication closets.

Provide one 19" equipment shelf for each rack.

Each communication outlet shall have a permanent label on the outlet faceplate and the patch panel jack. Port labels shall also be permanently attached to the UTP cables at both ends. Brother P-Touch tape marking system labels are acceptable. Handwritten labels are not acceptable. The following scheme shall be used in the labeling process:

Communication Closet (CC) Room Number

Position on Patch Panel

For example, Classroom # 212 has 3 Cat 6A cables that terminate in Closet # 245.

The classroom outlet would be labeled:

CC245 (Communication Closet room number)

9 - 10 – 11 (corresponding positions on the patch panel)

The Communication Closet would be labeled:

212-9 212-10 212-11

(212 is the classroom number & 9–10–11 are jack identification numbers)

The communication closet patch panels will be labeled above each port with the room number each jack services and will correspond with the jack in each room.

Each patch panel shall be labeled sequentially from left to right, top to bottom with the room number and port number such that the ports can be located easily on the panel.

All fibers in each fiber optic cable shall be identified at each end on the interconnect cabinet with permanent plastic labels. Fiber cabinets shall be identified with the building number, room number and corresponding fiber number for the far end of the cables.

Every portable in the district used for instructional purposes will have the following network communication infrastructure and will be equipment and designed as follows.

No cable splices will be allowed outside the termination locations described in this document or on the prints.

All cables will be labeled on both ends with clear permanent machine generated labels matching the numbering plan indicated herein.

Provide and install a Hubbell REbox (Commercial Remote Equipment Cabinet) model RE2 inside each portable next to an electrical outlet. Determination of the mounting location will vary depending on the design of each portable and must be approved by the SDMC Network Services Manager prior to installation.

Install a 1" steel conduit pipe to be run from the RE2 cabinet to the exterior of the portable and terminate into a NEMA 3 weather proof 8" x 8" x 6" J Box with an accessible cover. The pipe will be fastened to the portable so the pipe cannot move.

Install two, separate inner duct conduit pipes exiting the bottom of the J Box and buried in the ground to terminate into a 12"x 18" pull box installed near each portable. One pull box can be shared by multiple portables if the distance between the pull box and the portable is not greater than 30 feet.

Install two, separate 1" conduit pipes buried at least 12" deep from the pull box to either an exterior weatherproof cabinet mounted at least four feet up on a backboard or a larger buried pull box at least 2 feet x 2 feet. The type of termination required will vary from site to site and will be determined by Owner.

Install two, separate 2" conduit pipes buried at least 12" deep between the above determined location to the closest permanent buildings Communication Closest.

Install a two-strand fiber optic cable which is suitable for underground installation between each portable's RE2 cabinet and either the external backboard cabinet or building communication closet.

Install a 4-conductor 20 AWG P.A. cable with 1-pair shielded and a drain wire (West Penn 359 or equivalent) between each portable's RE2 cabinet and either to external backboard cabinet or building communications closet which has available P.A. circuits.

Labeling shall be as follows; each pair of fiber in the permanent buildings communication closet will have a label that denotes the portable # in which each pair of fiber is terminated. The portable will have a label on the fiber denoting the permanent buildings communication closet room #.

PORTABLE INTERNAL WIRING

Install three communication outlet boxes on opposite walls in each portable and located next to power outlets. Determination of the mounting location will vary depending on the design of each portable.

Each outlet will have three Category 6A cables contained in each outlet box. These cables are to be run inside the walls if possible; otherwise they can be run on the interior surface of the finished wall, into and above the drop ceiling space and down the wall into the RE2 cabinet.

Terminate all cables onto Cat 6A patch panels located inside the RE2 cabinet and label both ends of all cables. Install cable wire mold over all exposed cable runs inside the portable.

Contractor shall be responsible for providing a complete, functional data communications systems. All needed infrastructure including but not limited to conduit, ground pull boxes, racks, cabinets, termination panels, outlets and cabling are to be provided by this Contractor. Coordinate all requirements with other trades prior to submitting shop drawings. The Contractor shall provide for 20% growth on patch panels and punch down locations.

The cabling plant shall consist of a Main Distribution Frame (MDF) and multiple Intermediate Distribution Frames (IDFs), as shown on the drawings. All conduit and cable interconnecting the MDF to the IDFs shall be a part of this scope. All network cabling shall be installed with a 25-year manufacturer's performance warranty for 10-Gbps. The system is to be constructed with all like components and the installing Contractor is to be certified in the installation of the system and its components (must be pre-approved). The system shall also include a 4" conduit with three inter ducts to be installed from the MDF to the main road public right of way along and terminated into a 2x3 pull box.

The installation shall include all (fiber optic and twisted-pair copper) cabling, connectors, jumpers, patch panels, vertical wire management (no horizontal), telecommunications outlets, and racks or cabinets. At least 50% (i.e., the lower half) of each rack shall be reserved for Owner provided electronics.

All fiber strands shall be terminated with LC connectors utilizing Fusion splicing and landed on the fiber interconnect patch panels.

All copper station cables shall be terminated on patch panels (MDF / IDF end) and data communications outlets (work station end). Upon completion of installation, Contractor shall test all fiber and copper cable, record the test results and provide results to the district, as specified herein.

Install/terminate fiber from the MDF to every individual IDF building. These runs shall all be in a star configuration. These backbone cables shall all be dedicated direct links between the MDF and the IDF. Provide rack mount fiber and copper panels in all closets and mount all equipment on a rack or cabinet, as required by this specification or the drawings.

The Contractor shall rack-mount and patch all owner provided network equipment.

Contractor shall provide Category 6A cabling system.

The intended function of the data communications cable system is to transmit data signals from a central location to individual data outlet locations. Upon completion of the work outlined in this specification, the system shall be capable of supporting Gigabit Ethernet data signals per IEEE 802.3ab, IEEE 802.3z, IEEE 802.3ae, and 1.2 Gb/s ATM. Fiber optic cable shall be laser or Vertical Cavity Surface Emitting Laser (VCSEL) optimized.

FIBER OPTIC CABLING

It is the intent that the inter-building fiber optic cabling, installed on this project, accommodates the data, fire alarm, HVAC controls, and surveillance systems. Fibers dedicated to these systems shall be labeled as to their use. All high school construction projects shall have fiber run to the sports field press boxes for phone and data communications.

All OSP fiber cable that is run 50 feet or more inside a building shall be installed in no less than two inch GRC above ceiling from entry point to termination point. Provide 20 foot slack loop at each closet termination end. Cable is to be homerun (i.e., no splices or cross patching through IDFs).

Outside Plant Fiber – Multi-Mode

1. Provide for inter-building backbones: loose tube, gel filled, moisture proof, outside plant, multi-strand, multi-mode fiber optic cable. Provide 50/125 and in quantities indicated on drawing interconnect diagram. Multimode fiber strands shall be optimized for VCSEL based systems. Fiber strands shall exceeded TIA/EIA 568-3.D and IEEE802.3z specifications. All fiber shall be installed with pull strings for future use. See drawings for number of fibers per cable.
2. Approved Manufacturers:
    a. Belden (or fully equivalent) Premise Backbone OM4 Indoor/Outdoor Plenum fiber optic cable
    b. Pre-Approved Equal
3. Indoor Plant Fiber – Multi-Mode
    a. Provide for intra-building backbones: gel-free, inside plant, multi-strand, multi-mode fiber optic cable. Provide 50/125 and in quantities indicated on drawing interconnect diagram. Multimode fiber strands shall be optimized for VCSEL based systems. Fiber strands shall exceeded TIA/EIA 568-3.D and IEEE802.3z specifications. All fiber shall be installed with pull strings for future use. See drawings for number of fibers per cable.
    b. Approved Manufacturers:
        i. Belden (or fully equivalent) Premise Backbone OM4 Indoor/Outdoor Plenum fiber optic cable
        ii. Pre-Approved Equal.

FIBER OPTIC CABLING CONNECTORS

1. Provide small form factor, fiber optic connectors at each end of all fibers installed. Ferrule material shall be zirconia ceramic and pre-radiused. Each installed connector shall not exceed –0.1 dB/0.5 dB per connector pair. Provide connector protectors at each connection point to prevent accidental damage to connectors (dust covers). Terminate fiber on “LC” duplex connectors appropriate to fiber type, in quantities indicated on drawings.
    a. Approved Manufacturers:

i. Belden (or fully equivalent) FX Fusion Splice-on Connector, OM4, LC SIMPLEX, 900UM Tight Buffer, Aqua Housing

2. Protect all 250 µm fibers with cable end kit and fan out tubing kit or breakout jacketing kit.
    b. Approved Manufacturers:
        i. Belden, Corning or Pre-Approved Equal.

FIBER OPTIC CABLE INTERCONNECT DEVICES

1. Fiber Optic Interconnect Cabinets (Rack-Mounted)
    a. Rack Mount Fiber Enclosures shall be constructed of code gauge steel protecting fiber terminations on all sides. Cabinets shall install in a 19" data rack with standard EIA hole spacing.
    b. Provide hinged, removable front and rear doors with drawer that slides forward and backward.
    c. Patching compartment shall be accessible through a hinged rear mounted cover (removable).
    d. In quantities required, provide ports with "LC" type duplex couplers for multi-mode OM4 fiber optic cable. Cover empty slots with blank adapter panels, as applicable.
    e. Cabinets shall be equipped with fiber optic splice trays and cable management. For transition to vertical cable managers, provide integral bend radius control.
    f. Approved Manufacturers:
        i. Belden (or fully equivalent) OM4 Standard FX ECX Frames (6 Pair / 12 pair LC)
        ii. Belden (or fully equivalent) OM4 FiberExpress (FX) Enterprise Closet X (ECX) Fiber Patch Panel (include all needed accessories)
        iii. Pre-Approved Equal.

EQUIPMENT RACKS

1. Connect separate, solid, #4 AWG, insulated, grounding wire between the ground bus and the building's grounding system. Grounding Bus Assemblies: Provide ground bus assembly, 12" long (minimum) with lugs in each IDF / MDF closet and to every equipment and relay rack if not existing

2. Provide rack with mounting hardware and all accessories required to complete installation of the rack.
3. Provide Velcro tie wraps for cable management within racks. Nylon tie wraps shall not be used within racks.
4. Relay Racks and Frame
    a. Relay racks and frame shall be height, as specified, and provided with EIA 19" mounting.
    b. Securely mount to floor (on an isolation pad and utilize non-conductive washers) and provide ladder rack/attachment hardware, at no less than 12" width, with required front and rear clearances.
    c. Provide 12-24 pan head mounting screws with each rack for the mounting of electronic equipment (i.e., switches) in quantities corresponding to the installed number of patch panels (i.e., one switch to each patch panel).
    d. Equipment shall be constructed of extruded aluminum or cold rolled steel with standard EIA hole pattern on front and rear. Finish shall be anodized black.
    e. Acceptable Manufacturers:
    f. Chatsworth Products Model 48353-703 (Relay) and Model 15251-703 (Four Post).
    g. Pre-Approved Equal.
    h. Per drawings, provide cable management system. Provide vertical cable channel guide panels with covers to handle all terminated cables, as per drawings. Contractor shall install all owner provided network equipment and patch all drops onto equipment in an orderly and neat fashion utilizing the minimum required cable lengths through the cable management system. Orderly and neat to be evaluated by the Owner/Engineer. Contractor shall redo to comply with Owner's opinion/aesthetics.
        i. Acceptable Manufacturers:
            1. Chatsworth Products, Evolution g1 35511-703 (Vertical) and Evolution 35441-702 (Horizontal).
            2. Pre-Approved Equal
    i. Provide support for each rack/frame, as required. For required backboard, provide as manufactured by Pathway & Spaces, Inc. Backboard Kits or pre-approved equal.

j. Provide APC Smart-UPS X 3000VA Rack/Tower LCD 100-127V with Network Card SMX3000LVNC with APC Temperature & Humidity Sensor AP9335TH in the MDF Room. Install one L5-30 – 125V 30A electric outlet behind the network rack for the above UPS. If the school is to be used as a public shelter and is equipped with a generator, the Contractor shall provide backup power to this outlet in each MDF / IDF electrical outlet that is designated as a shelter space.

k. UPS requirement for all IDF rooms - Provide APC Smart-UPS X, Line Interactive, 1500VA, Rack/tower convertible 2U, 120V, 8x 5-15R NEMA, Smart Connect Port+NMC with APC Temperature & Humidity Sensor AP9335TH in all IDF rooms.

UTP HORIZONTAL CABLING

1. Provide color putty, plenum-rated, Category 6A compliant, unshielded twisted pair (UTP) copper cable with integrated pair divider with a flame-retardant PVC jacket. Cable shall contain thermoplastic insulated primaries to comply with Article 800 NEC. Coordinate final color of cable with Owner prior to ordering.
2. The Contractor shall inspect all cable prior to installation to verify that it is identified properly on the reel identification label, that it is of proper gauge, containing the correct number of pairs, etc. Damaged cable, or any other components, failing to meet specifications shall not be used in the installation.
3. Horizontal runs shall not exceed the 90 meters including the patch cords and slack. If such an instance is identified by this Contractor (due to routing or other constructability issues), this Contractor shall notify the Engineer, prior to installation, in order to adjust the design to comply with standards.
4. Provide three feet of “s”-coiled cable above ceiling at each outlet location.
5. Acceptable Manufacturers:
    a. Belden (or fully equivalent) Yellow 10GXS Category 6A Enhanced Cable, 4 Pair, U/UTP, CMP (include all needed accessories)
    b. Pre-Approved Equal.
6. Any exposed cables shall be completely installed in black wire loom.

DATA JACK SYSTEM (T568B)

1. Recessed Mount—Provide faceplate and specified number of eight position eight conductor connectors in a four port configuration. The jacks shall individually snap-in to faceplate from the back of the faceplate. There shall be no front access to the jack termination once faceplate is secured to back box. Data outlet shall provide compliance with TIA-568-0.D, 568-1.D, 568-2.D, and TIA-606-B specifications. Termination of all jacks shall be 110-type insulation displacement connectors (IDC), T568B pin/pair assignment and shall utilize printed circuit board technology. Tilt RJ-45 jacks at 45 degree angle.
2. Acceptable Manufacturers:
    a. Belden KeyConnect Faceplates 1-Port, 2-Port, 3-Port, 4-Port, w/ ID Windows, Single Gang, Flush (BL-AX102249, BL-AX102655, BL-102661). Faceplate openings to accommodate jacks specified. Provide blanks, as necessary.
    b. Pre-Approved Equal.
3. Provide a communications outlet outside of the Cafeteria Manager's office just below the finished ceiling. The outlet needs to be located in such a way as to allow a chime or bell to be connected to it and for the sound to be heard by Food Service staff.
4. WAPs shall be located one foot above finished ceiling tile on Unistrut suspended from structure on all-thread and labeled. Provide biscuit termination with no less than 20 feet slack.

LABELING

1. Each cable shall be permanently labeled at both ends with the MDF or IDF Room Number, Patch Panel Number, and Patch Panel Port Number. The system identification administration shall meet the requirements of TIA 606-B.
2. Each box shall have a recessed designation strip with clear plastic cover for jack identification. Lettering shall be typed – not handwritten.
3. All fibers in each fiber optic cable shall be identified at each end on the interconnect cabinet with permanent plastic labels. Fiber cabinets shall be identified with the building number and corresponding fiber number for the far end of the cables.

PATCH PANELS (T568B)

1. Provide loaded, Category 6A UTP patch panels (rack mount) per TIA 568-2.D as verified by ETL. Panels shall have 110 IDC type to eight position eight conductor connectors with no exposed PC boards. Jacks shall be manufactured with printed circuit board (PCB) and have T568B pin/pair assignment (unless otherwise noted on the drawings). Patch panels shall be provided with individual port and patch panel labeling identification areas and shall be labeled consistent with the data jack system labeling outlined in this specification.
2. Provide quantity to accommodate number of outlets indicated on drawings plus 20% growth.
3. Provide rear cable management and horizontal cable management guide either as an integral part of the patch panel or provide as a separate piece and station support bars.
4. The building and room number in which the patch panel resides shall be prominently displayed.
5. Patch panels shall be alphabetically labeled from top to bottom, left to right, beginning with the letter A and proceeding through the alphabet. Each port of each patch panel must be numbered and labeled with the originating jack identification using building, room, and jack designation.
6. Acceptable Manufacturers:
    a. Belden (or fully equivalent) Cat 6A 10GX REVConnect Patch Panel 24 Port / 48 Port
    b. Pre-Approved Equal.

FIBER JUMPERS AND PARTCH CORDS

1. Fiber Jumpers
    a. Provide one, fiber optic jumper/patch cord for each termination in each communication closet. Jumpers shall consist of two, 50/125 µm, multimode OM3 fibers; 2 meters long with type LC ceramic connectors on both ends. Refer to fiber specifications - this section.
2. Category 6A Patch Cords
    a. Provide snagless, Category 6A compliant cords (with an RJ-45 8P8C jack on each end). One patch cord shall be provided for each end of each Category 6A link (i.e., two per link), as shown on the drawings, plus spares. Cords shall be installed by this Contractor.

b. Provide **yellow** patch cords in the following lengths (if lengths are not exactly as listed provide closest length, even if slightly longer):
    i. At closet: 40% - 3 feet, 40% at 7 feet, 20% at 10 feet.

       Provide 20% spare patch cords (Qty/Lengths: ½ at 3 feet and ½ at 7 feet).
    ii. At station, 75% - 10 feet and 25% - 15 feet.

       Provide 20% spare cords per color (Qty/Lengths: ¾ at 10 feet and ¼ at 15 feet).
c. Approved Manufacturers:
    i. Belden (or fully equivalent) CAT 6A 10GX Copper Patch Cord UTP LSZH, 26 AWG
    ii. Pre-Approved Equal.

ZONED PAGING

1. This Contractor shall provide pre-cabling for speakers to be installed under Section 17a of this Manual.
2. Provide 10-foot coil of cable at each speaker location shown on drawings and at MDF/IDF prior to termination. The cabling shall be homerun from each speaker location to the appropriate IDF and terminated on patch panels or Buchanan strips for analog.
3. For exterior speakers, provide a 4 x 4 recessed box without plaster ring and with extension box.
4. For ceilings (plaster and tile), cut in and install backbox, run cable in conduit back to accessible area. For tile ceiling, support tile grid for speaker location from building. For ceiling mount, no excessive weight shall be borne by the ceiling tiles - provide straps or otherwise approved hardware for bar joist suspension, as needed.
5. The paging system shall be utilized for emergency announcements. All components shall meet UL, CSA, and FCC requirements.
6. Ensure conduit and junction boxes are installed accessible for maintenance or re-pulling wire.

MISCELLANEOUS EQUIPMENT

1. As per the needs of the installation, miscellaneous equipment shall be required at the Contractor's expense. It is the Contractor's responsibility to identify and bid all miscellaneous equipment necessary to provide a complete and properly functioning system.
2. All backboards shall be ¾" AC Grade plywood painted on all sides with gray flame retardant paint as manufactured by Pathway Spaces, Inc. Backboard Kits or pre-approved equal. Label shall be visible.

MULTI-MODE FIBER TESTING (TO BE SUBMITTED AT SUBSTANTIAL COMPLETION)

1. TESTING: Contractor shall test each fiber strand and each pair of each twisted-pair copper cable. The Owner/Engineer reserves the right to have a representative present during all or a portion of the testing. A testing schedule shall be planned and agreed upon beforehand.
    a. FIBER-OPTIC BACKBONE CABLE: Each fiber in every backbone cable run shall be tested with a optical light source and power meter as manufactured by Noyes Fiber Systems or HP/Agilent Technologies. Each multimode fiber shall be tested at both 850 and 1,300 nm. Maximum fiber strand attenuation shall be determined using the following link attenuation equation:
    b. Maximum link attenuation =
    c. Connector attenuation + Cable attenuation + Splice attenuation
    d. Maximum attenuation per component:
    e. Connector attenuation 0.75dB/1 mated connector pair
    f. Cable attenuation 3.5dB/km @ 850nm and 1.5dB/km @ 1300nm
    g. Contractor shall calculate the acceptance values for each fiber strand based on the above criteria. The fiber certification report shall be submitted listing the power loss budget dB value, the measured dB loss, and the dB margin of each measured fiber strand to the acceptance values per test limit: TIA Backbone Fiber Standard 568C.
2. Backbone lengths shall be verified with an OTDR or Light Source/Power Meter with length based standard testing as manufactured by Noyes Fiber Systems, Agilent, or pre-approved equal. Per this specification, maximum distance shall not exceed 500 meters to support LAN equipment operating at 850 nm and 1,000 meters to support LAN equipment operating at 1300 nm. Optical power meter and OTDR results shall be in

the form of tester report print outs, handwritten results will not be accepted. Photocopies of test results will not be accepted; only original signed print outs will be accepted. These results shall be submitted to the Engineer.

a. Fiber backbone test results shall include:
    i. Wavelength
    ii. Fiber Type
    iii. Cable Length
    iv. dB Loss
    v. Power Loss Budget for measured cable length
    vi. Loss Margin
    vii. Continuity
    viii. Attenuation Specification
    ix. Bandwidth Specification
    x. Fiber and Cable Number
    xi. Measurement Direction
    xii. Reference Set-up
    xiii. Test Equipment Model and Serial #'s
    xiv. Test Date
    xv. Operator (Crew Members)

HORIZONTAL COPPER TESTING (TO BE SUBMITTED AT SUBSTANTIAL COMPLETION)

1. TESTING: Contractor shall test each horizontal, twisted pair, copper channel. The Owner/Engineer reserves the right to have a representative present during all or a portion of the testing. A testing schedule shall be planned and agreed upon beforehand.

2. HORIZONTAL UTP CABLE: Each horizontal cable run shall be tested for all frequencies from 1 MHz to 550 MHz. The test shall be a channel configuration which includes the patch cord, patch panel, UTP cable, workstation jack, and workstation cord. The cable tester shall be set for channel parameters before testing. Each Category 6A cable shall be tested using a Level IIIe tester compliant with TIA specifications for testing of Category 6 configurations with the latest software upgrade available at time of bid. Tester shall be consistent with the manufacturer's requirements for hardware and software for a certified system and shall be based on compliance with TIA requirements. No tester shall be approved without meeting these requirements. Prior to testing UTP runs, the tester shall be calibrated per manufacturer's guidelines. Contractor to submit documentation of calibration upon request. The correct cable NVP shall be entered into tester to assure proper length and attenuation readings. Category 6 test results shall be in the form of tester software print outs. Photocopies shall not be accepted; only original signed reports shall be accepted. Test results shall be furnished to the Engineer.
    a. Category 6A UTP cable testing shall include:
        i. Cable Length
        ii. Wire Map
        iii. Insertion Loss
            1. Cable
            2. Connecting Hardware
            3. Channel
        iv. Pair-to-Pair Near End Cross Talk (NEXT) Loss
            1. Cable
            2. Connecting Hardware
            3. Work Area, Equipment, and Patch Cord
            4. Channel
        v. Power Sum NEXT Loss
            1. Cable
            2. Channel

vi. Pair-to-Pair Equal Level Far End Cross Talk (ELFEXT)
    1. Cable
    2. Channel
vii. Connecting Hardware Pair-to-Pair FEXT loss
viii. Power Sum ELFEXT
    1. Cable
    2. Channel
ix. Return Loss
    1. Horizontal Cable
    2. Connecting Hardware
    3. Work Area, Equipment, and Patch Cord
    4. Channel
x. Propagation Delay
    1. Cable
    2. Channel
xi. Propagation Delay Skew
    1. Cable
    2. Channel
xii. LCL (Longitudinal Conversion loss)
    1. Cable (in both directions)
    2. Connecting Hardware
xiii. MULTI PAIR UTP BACKBONE CABLE: Each pair shall be tested from termination block in MDF to termination block in IDF for continuity.

DOCUMENTATION

1. Contractor shall provide documentation to include test results and as-built drawings. Drawings shall be developed in CAD (i.e., AutoCAD 2014 or higher). The following documents shall be provided to the Engineer:
    a. Each MDF and IDF shall contain a copy of that building's as-built drawing affixed to an adjacent wall or located in an interior pouch for quick reference. Revised rack and equipment cabinet elevations shall be provided including serial numbers of all installed equipment.
    b. Three sets of black line, as-built drawing sets.
    c. Provide USB drive reflecting all the work with actual device and equipment locations. Drawings to be submitted in .dwg or .dxf and pdf format.
2. Provide the testing results database on USB for the completed job (i.e., fiber and copper). The USB thumb drive shall include the software tools required to view, inspect, and print any selection of test reports.
    a. Additionally, provide one hard copy of the fiber optic cabling test results and one hard copy of UTP cabling results. These results shall be submitted to the Engineer prior to the Contractor calling for substantial completion inspection.
    b. Provide each communications room with its own notebook containing the corresponding test reports for both the fiber and copper cabling. Each notebook shall have a clear front pocket and be labeled with that communications room's designation.
3. Provide a bill of materials of all installed equipment and wiring, rack, and backboard equipment layouts showing placement of support equipment, and model and serial numbers of all installed equipment.

ACCEPTANCE

1. Acceptance of the Data Communications System, by the Owner and the District's Technology Department, shall be based on:
    a. Copy of all test results.

i. All fiber segments and all workstation data cables must meet the criteria established in section above. The Contractor is responsible for additional fiber strands and UTP cable to be installed if any show defective during testing.

b. Copy of as-built drawings shall contain the following.

i. Changes and/or deviations from the construction (bid) prints.

ii. All communication outlet addresses and locations.

iii. Horizontal cable routing.

iv. Backbone cable routing.

TRAINING

Provide a minimum of two site personnel with training on the network cabling system for up to two hours on site. Training shall cover the location labeling scheme, documentation structure and contents, documentation orientation, and system reconfiguration (i.e., reassignment of Communication Outlet function via patching). Training shall take place at time of Substantial Completion before building is occupied by Owner.