

Madrid-Waddington Central School District

Smart Schools Investment Plan (SSIP) – Infrastructure Focus

I. Overview

The Madrid-Waddington Central School District is submitting this Smart Schools Investment Plan to support critical infrastructure upgrades that will enhance the district's internal network capacity and reliability. These upgrades are essential to sustaining a robust digital learning environment and ensuring equitable access to high-speed connectivity for all students and staff.

II. Demonstration of Need

The district's 2022–2025 Instructional Technology Plan identifies infrastructure modernization as a key priority. Specific needs include:

- Upgrading core switching to support higher bandwidth demands.
- Replacing aging fiber infrastructure to improve internal data transmission speeds and reliability.
- Ensuring all instructional spaces meet or exceed the FCC's 100 Mbps per 1,000 students standard.

These upgrades are necessary to support the district's 1:1 device program, blended learning initiatives, and the implementation of the NYS Computer Science and Digital Fluency Standards.

III. Project Description

A. Fiber Infrastructure Upgrade

- Installation of 6-strand fiber from MDF to seven IDFs.
- Includes new fiber housings, bulkheads, SC splice-on connectors, termination, and testing.
- Enhances backbone connectivity across all instructional buildings.

B. Core Switching Upgrade

- Deployment of two 24-port SFP+ switches with 10G and 50G uplinks.
- Configuration of VLANs, routing protocols, and failover mechanisms.
- Includes administrator training and post-deployment support.

IV. Budget Summary

Component	Description	Cost
Fiber Infrastructure Upgrade	Fiber runs, housings, termination, testing	\$80,044.98
Core Switching Upgrade	Switches, optics, cables, configuration	\$45,469.42
Total		\$125,514.40

V. Alignment with Instructional Technology Plan

This investment directly supports Goal 4 of the district's Technology Plan:

> "The district will continue to sustain a robust, secure network to ensure sufficient, reliable high-speed connectivity for learners, educators, and leaders."

It also supports:

- The 1:1 device initiative.
- Remote learning readiness.
- Integration of digital curriculum and assessment tools.

VI. Sustainability

The district has a lifecycle replacement plan and annual budgeting process to maintain and upgrade network infrastructure. Technical support is provided by in-house staff and BOCES partnerships. All equipment will be inventoried and maintained in accordance with NYSED guidelines.

VII. Stakeholder Engagement

The district engaged stakeholders including:

- Teachers and administrators
- Parents and community members
- Technology Committee and Board of Education

A preliminary plan was posted for public comment, and a public hearing was held prior to Board adoption.

VIII. Nonpublic School Inclusion

This plan does not include device purchases. However, the district remains committed to equitable access and will comply with loan requirements for future technology purchases.