

REQUEST FOR PROPOSAL

Network Infrastructure Modernization

Full-Scale Campus Technology Overhaul

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PURPOSE OF THIS DOCUMENT

Girard is soliciting cost proposals from qualified network infrastructure consultants for a full-scale modernization of the campus network at Girard College in Philadelphia, Pennsylvania. This Scope of Work document is intended to provide invited consultants with the information necessary to prepare accurate, competitive, and comprehensive cost proposals.

SECTION 01 | ABOUT GIRARD COLLEGE

1.1 Institutional Overview

Girard College is an independent, college preparatory boarding school serving academically talented, financially underserved students 1st through 12th grade. Founded in 1848 by Philadelphia philanthropist and entrepreneur Stephen Girard, Girard College was opened to assist orphaned, white males. The school became integrated in 1965 and later began accepting female students in 1984. The school is operated by the Board of Directors of the City Trusts (BODCT), which consists of members appointed by the Mayor of Philadelphia. The school's campus is located on 43 acres in the Fairmount section of Philadelphia and is on the national register of historic places. Founder's Hall, one of four buildings original to the campus and designed by architect Thomas U. Walter, is a national historic landmark. Today, Girard College serves approximately 350 students from the Greater Philadelphia region, Delaware and New Jersey.

1.2 Campus & Architecture

The Girard College campus spans approximately 43 acres in the Fairmount neighborhood of North Philadelphia and is a landmark of neoclassical American architecture. The campus centerpiece,

Founder's Hall, was designed by architect Thomas Ustick Walter — who would later design the dome and wings of the United States Capitol — and completed in 1848. It remains one of the finest examples of Greek Revival architecture in the Western Hemisphere and is a designated National Historic Landmark.

The campus features numerous historic academic, residential, and administrative buildings arranged around manicured grounds, all enclosed within a signature stone wall that has become a recognized symbol of the institution itself. The campus environment is intentionally self-contained and residential, creating a focused and structured community for its students.

1.3 Strategic Vision for the Future

Girard College's leadership has set an ambitious and forward-looking goal: to transform the campus into a recognized technological center of excellence for the region. The institution is committed to ensuring that every student — regardless of their family's socioeconomic background — has access to a learning environment equipped with the most modern digital tools, connectivity, and technology infrastructure available.

Achieving this vision requires a complete overhaul of the campus network infrastructure — the foundational layer upon which every modern educational technology depends.

SECTION 02 | CURRENT STATE OF NETWORK INFRASTRUCTURE

2.1 Existing Infrastructure Assessment

Girard College's current network infrastructure is estimated to be 15 to 20 years old in its core components and has been maintained through a series of reactive, piecemeal upgrades over the years. Rather than undergoing a planned, systematic modernization, the network has been patched and extended as immediate needs arose — resulting in a complex, inconsistent, and increasingly unreliable system.

INFRASTRUCTURE STATUS

The existing network cannot support the bandwidth demands, device density, or application requirements of a modern educational environment. It poses a significant and growing risk to day-to-day operations, data integrity, and the school's ability to deliver technology-enabled instruction.

2.2 Known Deficiencies

The following represent the primary areas of concern with the current network infrastructure:

- **Aging Cabling Plant:** The majority of horizontal and backbone cabling does not meet current TIA/EIA standards for bandwidth or performance.
- **Inconsistent ER/TR Configuration:** Main and intermediate distribution frames across campus lack standardization, with varying equipment ages, configurations, and power availability.

- **Inadequate Wireless Coverage:** The campus wireless infrastructure is sparse, outdated, and incapable of supporting modern wireless standards (Wi-Fi 6/6E) or the device density required in a 1:1 device environment.
- **Power Infrastructure Gaps:** Many network closets and distribution points lack adequate, conditioned power, UPS protection, or the capacity to support new, higher-power network equipment.
- **No Scalability Path:** The current infrastructure provides no practical upgrade path and cannot accommodate the growing number of connected devices, applications, and services required by students, faculty, and administration.
- **Ongoing Reliability Issues:** The patchwork nature of the existing infrastructure contributes to recurring outages, bottlenecks, and performance degradation that disrupt educational operations.

SECTION 03 | PROJECT OVERVIEW & OBJECTIVES

3.1 Project Summary

Girard College is seeking proposals for a comprehensive, two-phase network infrastructure modernization project. The project is designed to replace legacy infrastructure from the ground up, establish a robust and scalable technology foundation, and position Girard College as a model of modern educational technology in the greater Philadelphia region.

Project Name	Girard College Campus Network Infrastructure Modernization
Client	Girard College, Philadelphia, Pennsylvania
Issuing Entity	Girard College
Project Phases	Preliminary Phases 1: Backbone and ER Phase 2: Campus Buildings TR and Horizontal Design Phase 3: Switch Install and AP Rollout
Project Scope	Full campus — all academic, residential, and administrative buildings
Primary Goal	Complete infrastructure modernization enabling wireless AP deployment and future scalability

3.2 Core Project Objectives

- Replace aging, non-standard cabling infrastructure with a modern, standards-compliant fiber backbone and horizontal copper cabling plant.
- Establish a centralized, properly engineered ER with standardized switching, power, and environmental controls.
- Build a network infrastructure capable of supporting high-density wireless access point deployment across the entire campus.
- Design all infrastructure with future scalability as a primary requirement — accommodating increases in device density, bandwidth demand, and emerging technologies for a minimum of 15–20 years.

- Support Girard College's strategic goal of becoming the premier technology-enabled educational campus in the Philadelphia region.

SECTION 04 | PHASE 1 — FIBER BACKBONE INSTALLATION

4.1 Phase Overview

Phase 1 encompasses the complete design, procurement, installation, and testing of a new fiber optic backbone network that will serve as the primary data transport layer across the Girard College campus. This backbone will interconnect all campus buildings and serve as the foundation upon which all subsequent network infrastructure will be built.

4.2 Fiber Type & Specification

The new fiber backbone shall be installed using single mode fiber optic cable. single mode fiber has been selected to accommodate the high bandwidth demands of current and future network technologies, including high-speed switching, wireless access point backhaul, and emerging applications requiring significant data throughput.

Consultants are expected to specify fiber grade in their proposals. At minimum, the installation shall meet or exceed the following baseline requirements:

- Minimum fiber specification: OS2 single mode fiber optic cable
 - Fiber count to be determined per building based on current and projected device density — consultants should provide recommendations with justification.
 - All fiber shall be installed in accordance with TIA-568.3-D and ANSI/TIA standards for optical fiber cabling.
 - Cable pathways (conduit, innerduct, cable trays) shall be installed to facilitate future fiber additions without major rework.
 - All fiber runs shall be fusion spliced at termination points; mechanical splices are not acceptable for backbone installations.

SCALABILITY NOTE

All fiber pathway infrastructure (conduit, cable tray, j-hooks) shall be installed with a minimum of 40% spare capacity to facilitate future expansion. Consultants should propose solutions that minimize future disruption to the campus as technology needs evolve.

4.3 Backbone Topology

The backbone topology shall follow a hierarchical star architecture emanating from the primary Equipment Room (ER) (to be established as part of Phase 2). Consultants should evaluate campus building locations and propose an optimal pathway plan. Key topology requirements include:

- All campus buildings to receive direct fiber connections back to the central
- Telecommunication Room (TR) locations within large or multi-floor buildings shall be identified and incorporated into backbone routing.
- Redundant fiber pathways should be proposed for mission-critical buildings where applicable.
- All underground fiber routing must utilize appropriately rated conduit with pull boxes at specified intervals.
- Aerial routing should be avoided where underground pathways are feasible.

4.4 Phase 1 Deliverables — Consultant Requirements

Proposals for Phase 1 must include:

- A detailed campus fiber pathway plan with proposed routes, conduit sizing, and access point locations.
- Fiber count recommendations per building segment with supporting rationale.
- Material specifications including cable, conduit, connectors, splice enclosures, and termination hardware.
- Labor estimate agreed to by task category
- Proposed construction timeline with phasing to minimize disruption to campus operations.
- Fiber testing and certification methodology and deliverables.
- Warranty terms for materials and workmanship.

SECTION 05 | PHASE 2 — MDF BUILDOUT, SWITCHING, POWER & HORIZONTAL CABLING

5.1 Phase Overview

Phase 2 encompasses the complete buildout of the campus Main Distribution Frame (MDF), installation of network switching infrastructure, power systems (including evaluation of three-phase power requirements), and the horizontal cabling plant necessary to support wireless access point deployment throughout all campus facilities.

5.2 ER Buildout

The ER will serve as the central hub of the campus network, housing the primary network switching equipment, fiber termination infrastructure, power distribution, and environmental monitoring systems. Consultants shall assess the proposed ER location and provide a comprehensive buildout plan that meets the following requirements:

- Specification and procurement of appropriate equipment racks/cabinets with proper depth, ventilation, and cable management.
- Installation of overhead and underfloor cable management systems as applicable to the space.
- Hot/cold aisle airflow management recommendations where rack density warrants.

- Environmental monitoring provisions (temperature, humidity, water intrusion) appropriate for a primary data facility.
- Physical security provisions for the ER room including access control recommendations.
- Proper grounding and bonding in accordance with TIA-607-C and ANSI standards.

5.3 Network Switching Infrastructure

Consultants shall propose a network switching architecture appropriate for the campus scale, device density requirements, and the school's long-term scalability goals. At minimum, switching proposals must address:

- Core switching platform capable of supporting current campus needs with headroom for minimum 5-year growth.
- Switching capacity to support planned wireless access point deployment (exact AP count to be determined during site survey — consultants should provide assumptions).
- PoE/PoE+ and PoE++ (802.3bt) capability at edge switches to power wireless access points, IP cameras, and other PoE-dependent devices without additional power infrastructure.
- VLAN segmentation capabilities to support logical separation of student, staff, administrative, IoT, and guest network traffic.
- Stacking or chassis-based architecture where appropriate for resilience and simplified management.
- Management platform compatibility — proposals should include out-of-band management provisions.

VENDOR FLEXIBILITY

Consultants are not required to propose a specific manufacturer's switching platform. However, proposals must clearly specify the equipment proposed, with detailed justification of how it meets the campus scalability and performance requirements outlined in this document. Girard College reserves the right to request equivalent alternatives during the evaluation process.

5.4 Power Infrastructure

Adequate, reliable, and conditioned power is critical to the performance and longevity of the network infrastructure. Consultants shall assess existing power availability at the proposed ER and TR locations and include a power plan in their proposals. Specific considerations include:

- Evaluation of existing electrical service at the ER location and determination of whether service upgrades are required.
- Assessment of the feasibility and necessity of three-phase power for the ER — proposals should include a recommendation with supporting load calculation justification.
- Specification of UPS (Uninterruptible Power Supply) systems appropriate for the equipment load with a minimum runtime recommendation of 30 minutes at full load.
- Power distribution unit (PDU) specifications for rack-level power distribution and monitoring.
- Coordination requirements with the campus electrical contractor (consultants should clarify scope boundary between data infrastructure and electrical work).

5.5 Horizontal Cabling Infrastructure

The horizontal cabling infrastructure will provide the physical layer connectivity at each floor and building area to support wireless access point mounting and operation. Consultants shall design and install a horizontal cabling plant meeting the following requirements:

- All horizontal cabling shall be Category 6A (Cat 6A) unshielded twisted pair (UTP) at minimum, terminated in accordance with TIA-568.2-D.
- Cable runs shall not exceed the 90-meter channel length limit exclusive of patch cords.
- All cables shall be tested end-to-end with a certification-grade cable tester and results provided in electronic format as part of project closeout documentation. (Latest Fluke tester)
- Wireless Access Point drops: Each AP location shall receive the manufacturer recommended Cat 6A cables to support current and future dual-radio high-density access points.
- Cable pathways shall be installed using J-hooks, cable tray, or conduit as appropriate to the building construction type, in compliance with local codes and manufacturer bend radius requirements.
- All cables shall be labeled at both ends in accordance with a labeling scheme approved by WESCO prior to installation commencement.
- Wall plates, surface mount boxes, and patch panels shall be specified as part of consultant proposals — all terminations shall be 110-style punch-down with strain relief.

5.6 Wireless Access Point Preparation

While the procurement and installation of wireless access points themselves is outside the scope of this proposal request, all infrastructure installed under Phase 2 must be designed and installed with WAP deployment as the primary end use. Consultant proposals must address:

- Ceiling and wall mounting infrastructure (backing plates, conduit stubs, cable routing) appropriate for access point installation.
- PoE budget calculations demonstrating that proposed switching infrastructure can power the planned number of access points at full operational load.
- Proposed AP drop locations shall be presented in a floor plan format as part of the proposal deliverables.
- Mounting provisions shall accommodate current-generation enterprise Wi-Fi 6E access points from major manufacturers.

5.7 Phase 2 Deliverables — Consultant Requirements

Proposals for Phase 2 must include:

- ER equipment layout diagram (rack elevation drawings recommended).
- Network switching architecture diagram and bill of materials with pricing.
- Power load analysis and recommendations including UPS sizing calculations.
- Three-phase power feasibility assessment and recommendation with cost differential if applicable.

- Horizontal cabling plan with cable pathway routing, AP drop locations, and total cable count per building.
- Complete bill of materials for all hardware, cables, connectivity, and mounting components.
- Labor estimate broken out by category (ER buildout, switching installation, cabling, testing, documentation).
- Proposed installation timeline with sequencing plan.
- Testing and certification methodology and documentation deliverables.

SECTION 06 | PROPOSAL REQUIREMENTS & SUBMISSION GUIDELINES

6.1 General Proposal Requirements

All consultants responding to this RFP are required to submit proposals that address both phases of the project. Partial proposals addressing only one phase will not be accepted. Proposals shall be organized as follows:

- Executive Summary — Brief overview of the firm's approach, relevant experience, and key differentiators.
- Company Qualifications & References — Description of the firm, relevant certifications (e.g., BICSI, manufacturer certifications), and a minimum of three (3) references for projects of comparable scope and complexity.
- Cost Proposal — Schedule of cost for required resources to perform this project.
- Project Schedule — Proposed timeline for each phase, including major milestones and any dependencies.
- Exclusions & Assumptions — Please include any clarifications or exceptions that you may be making with the project.

6.2 Expected Contractor Qualifications

To be considered, responding consultants and contractors must demonstrate the following minimum qualifications:

- Demonstrated experience installing fiber optic backbone and structured cabling systems in K-12 or higher education environments.
- Current BICSI Registered Communications Distribution Designer (RCDD) on staff or available to the project team.
- Manufacturer certifications relevant to proposed cabling products for Girard approved products (e.g., CommScope, Cisco, APC)
- Proper licensing for telecommunications and low-voltage cabling work in the Commonwealth of Pennsylvania.
- Adequate insurance coverage includes general liability and workers' compensation.
- Experience with occupied campus environments and the ability to schedule work with minimal disruption to school operations.

6.3 Proposal Evaluation Criteria

Girard College will consider many factors, including cost, when evaluating proposals submitted to this RFP. While cost is an important factor, it is not the sole, or necessarily the deciding factor. Girard College may choose to award the contract resulting from this RFP. Girard College will base its selection on criteria that may include, but are not limited to:

- Superior ability or capacity to meet requirements of contract and needs of Girard College
- Superior prior experience of Applicant and staff representing clients like Girard College
- Superior quality, efficiency and fitness of proposed solution for Girard College
- Superior skill and reputation, including timeliness and demonstrable results
- Special benefit to continuing services of incumbent, such as operational difficulties with transition or needs of population being served
- Lower cost
- Administrative and operational efficiency, requiring less Girard College oversight administration
- Anticipated long-term cost effectiveness

SECTION 07 | PROJECT STANDARDS & COMPLIANCE

All work performed under this contract shall comply with the following standards and codes at minimum. Consultants are responsible for identifying any additional applicable standards in their proposals:

- ANSI/TIA-568.3-D — Optical Fiber Cabling Components Standard
- ANSI/TIA-568.2-D — Balanced Twisted-Pair Telecommunications Cabling and Components Standard
- ANSI/TIA-569-E — Telecommunications Pathways and Spaces Standard
- ANSI/TIA-607-C — Telecommunications Bonding and Grounding
- ANSI/TIA-606-C — Administration Standard for Telecommunications Infrastructure
- BICSI Telecommunications Distribution Methods Manual (TDMM) — current edition
- National Electrical Code (NEC) — current adopted edition in Pennsylvania
- NFPA 70 and all applicable local fire and life safety codes
- IEEE 802.3bt (PoE++) for power delivery specifications
- All applicable OSHA regulations for construction and telecommunications work

Consultants are advised that Girard College's campus includes buildings of significant historical and architectural value. All work in or near historic structures must be performed with appropriate care to avoid damage to historical fabric, and any penetrations or modifications to historic structures must be coordinated with the campus facilities team prior to execution.

SECTION 08 | CONTACT INFORMATION & SUBMISSION

All proposals must be submitted by **Monday, April 27th, 2026**, no later than 3:00pm.

Please submit your proposal electronically in PDF format to procurement@girardcollege.edu

Subject Line: RFP Submission- **Networking Infrastructure Modernization**

Thank you for your interest in this project.

Girard College look forward to reviewing your proposal.