



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: Friday, April 3, 2026.** Please include this submission form as the first page of your electronic entry. Contact [Gage Harter](#) with any questions.

PROGRAM INFORMATION

County: _____

Program Title: _____

Program Category: _____

CONTACT INFORMATION

Name: _____

Title: _____

Department: _____

Telephone: _____ Website: _____

Email: _____

SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: _____

Title: _____

Signature:  _____

Executive Summary

The Emergency Telecommunications Program, launched in January 2026 by Chesterfield County Public Schools (CCPS) Career and Technical Education and the Chesterfield County Emergency Communications Center (ECC), establishes a pioneering model for aligning secondary education with critical public safety workforce needs. This initiative provides high school seniors with academy-level instruction, nationally recognized credentials, and hands-on training.

Students serve as Emergency Telecommunicator Cadets and gain direct experience with authentic 911 dispatch technologies, crisis communication protocols, and operational standards. The curriculum was jointly developed by CCPS educators and ECC professionals to ensure alignment with Virginia CTE competencies and current industry practices. This collaboration ensures that instruction reflects the expectations, procedures, and responsibilities of modern emergency communications centers.

A major achievement of the program is the secure integration of the county's Computer Aided Dispatch (CAD) training system into the Technical Center. Through close coordination, CCPS and Chesterfield's Information System and Technology engineered a dedicated VPN-based network solution that meets all public safety security and segmentation requirements. This effort enabled ten county-owned CAD workstations to operate within a fully compliant, mission-critical training environment—an unprecedented capability for a high school program.

The Emergency Telecommunications Program stands as a model for innovation, interagency collaboration, and strategic workforce development. It demonstrates how school divisions and public safety agencies can work together to expand student opportunities while addressing a critical community need.

Abstract of the Program

In January 2026, Chesterfield County Public Schools Career and Technical Education and the Chesterfield County Emergency Communications Center launched a partnership that connects secondary education with a critical county public safety function. The Emergency Telecommunications program provides high school seniors with academy-level instruction, industry credential preparation, and hands-on work-based learning within the county's Public Safety Training Center. Students serve as Emergency Telecommunicator Cadets, working directly with authentic 911 dispatch systems and earning credentials such as the Emergency Telecommunicator Certification (ETC). This initiative supports regional workforce needs while creating a direct pathway for students into an essential public safety career.

Need and Context

Chesterfield County, like many regions, faces ongoing workforce shortages in emergency communications and must ensure that new hires are prepared for the complex demands of 911 operations. At the same time, schools must provide meaningful career pathways that align instruction with real workforce needs. Without deliberate coordination, education programs risk falling out of sync with industry standards, and government agencies may struggle to build a sustainable, skilled talent pipeline.

Program Implementation

The Chesterfield ECC CAD Training Expansion Project was initiated to provide students at the Chesterfield County Public Schools (CCPS) Hull Street Technical Center with hands-on access to the County's Emergency Communications Center (ECC) Computer Aided Dispatch (CAD) training system. The primary requirement was to deploy ten County-owned PCs running CAD software and connect

them securely to the ECC's CAD training database. The key challenge was that the Hull Street facility operates solely on the CCPS network and has no direct connection to the Chesterfield County network, requiring a secure and reliable alternative connectivity strategy.

To meet this challenge, Kelly Reed, Senior Network Engineer for IST, collaborated closely with Achim Purdy, Director of Network Services for CCPS, to engineer a solution using existing CCPS network infrastructure and a dedicated Virtual Private Network (VPN).

The implementation began with CCPS assessing available network pathways from the training classroom to the building's Intermediate Distribution Frame (IDF). With those resources confirmed, IST deployed an IST-owned FortiNet firewall and FortiSwitch within the IDF closet. The firewall was configured to establish a secure VPN tunnel between the Hull Street site and IST's data center firewalls at the IST building.

CCPS provided the necessary network feed to allow the IST firewall to reach the internet from within the CCPS environment, enabling the VPN to be successfully established. IST then applied additional firewall rules and routing configurations to ensure that only authorized CAD traffic from the classroom PCs could travel through the tunnel and reach the ECC CAD training database.

After successful testing, the ten CAD workstation connections in the classroom were migrated from the CCPS switch to the IST-managed switch, finalizing the network segmentation and security posture.

In the resulting configuration, CAD training PCs at Hull Street use CCPS network connectivity to reach the IST firewall onsite, after which their traffic travels securely through the VPN to the IST data center. Internal routing then delivers the traffic to the ECC CAD training environment.

This implementation provided CCPS students with direct access to a mission-critical public safety training system, meeting all security, performance, and operational requirements while showcasing strong cross-agency collaboration and innovative use of shared infrastructure.

Results and Impact

To address these challenges, CCPS and ECC formed a deeply collaborative partnership from the earliest planning stages. ECC leaders and CCPS educators jointly designed the Emergency Telecommunications pathway to align Virginia CTE competencies with current industry practices. ECC professionals contributed expertise on dispatch operations, crisis communication, legal requirements, and safety protocols, ensuring instruction reflects real workplace expectations. Together, both partners developed credential preparation, high-quality work-based learning, and access to authentic training spaces and technology within the Public Safety Training Center. This sustained collaboration equips students with technical skills, industry credentials, and experience aligned to Virginia's 3E Readiness Framework—Employment, Enrollment, and Enlistment. As a result, the program strengthens student opportunities and builds a long-term, reliable talent pipeline for the county's emergency communications workforce.

Supporting Evidence: [Criminal Justice with Emergency Telecommunications | Career and Technical Center](#)