

## *Northville Public Schools, Northville, MI – “Putting First Responder’s First”*

Date Completed: 7-30-21

### Project Description:

Through the partnership of Diversified Professional Design Services, Wright & Hunter and Northville Public Schools, we were able to identify a need to ensure all of Northville’s Schools and Administration Buildings were able to provide first responders with adequate radio signal coverage throughout each building in case of an emergency. Northville School’s consists of eleven (11) different facilities ranging in size from 36,000ft<sup>2</sup> to 412,000ft<sup>2</sup> with radio signal coverage deficiencies in seven (7) of the buildings. The project objectives were then set forth to enhance the radio signal coverage in the seven (7) failing buildings. To ensure proper radio signal coverage in the failing buildings, each building would need an Emergency Responder Radio Coverage System (ERRCS) to be installed. These systems would then aid in the transmission of local jurisdiction’s frequencies into each of the failing buildings, to ensure radio signal coverage throughout. This coverage would allow school resource officers, first responders, law enforcement and central dispatch to evolving situations for more effective responsiveness to potential or actual incidents on school grounds. Diversified Professional Design Services Team was brought in by Wright & Hunter, who is Northville’s preferred consultant, to provide expertise on a complete turnkey solution for the district.

Diversified Professional Design Services working in conjunction with the Northville Schools and their consultant Wright & Hunter began the process of working with the FCC License holder MPSCS (Michigan Public Safety Communications System) and the State and Local AHJ’s within the district to establish the required frequencies and requirements for the ERRCS system to be designed. Emergency responders in Northville utilize the MPSCS for dispatch and primary communications. This system operates on a frequency range of 851-858 MHz. All eleven schools were tested per 2015 IFC (International Fire Code), and 2015 MBC (Michigan Building Code) Article 916 by third party testing organization JDRM. Using a Pctel IBflex for both incoming downlink and outgoing DAQ measurements were performed using department Motorola APX6000 LMR radios. Upon completion of the testing seven schools failed the requirements, requiring enhancement.

Diversified Professional Design Services having the required information from the failed testing began the process of designing the 700/800MHz Emergency Responder Radio Coverage Systems using iBwave certified engineers. Partnering with ADRF for the hardware solution, the final designs were completed and reviewed with the School System, State & Local AHJ’s for approval and PE stamps. Complete Design drawings and Bid documents were used by the School District to receive bids from multiple organizations for installation of the ERRCS. As a result, Bluestone Communications was awarded the project.

The Installation of the seven schools began on January 11<sup>th</sup>, 2021, and was completed by July 30<sup>th</sup> 2021. All Schools and Systems were submitted to the MPSCS for registration, and upon receiving approval, the completed ADRF systems were commissioned for all schools, and re-tested to ensure all schools were remediated to pass all codes and standards. Final Walk-through's with the State & Local AHJ's were performed along with School representation. Close-out documentation and binders were presented to both the School District and Local AHJ's for record keeping.

The final outcome of the Northville Public Schools "Putting First Responder's First" project was a complete success. The Northville School Superintendent was very forward thinking submitting this project to the COPS Office STOP School Violence: School Prevention Program (SVPP) for a grant, which was awarded for these Emergency Responder Radio Coverage systems for the district. This project was made possible by multiple organizations working together to have a successful outcome.

Diversified Professional Design Services is honored to be a part of this project. Diversified is an organization that is passionate about the Public Safety Community, First Responders, Law Enforcement, and professionals alike. We strive to be the best and a leader in this industry for many years to come. Diversified as a team, Thanks you for allowing us to present this as a possible "SBC 2021 Project of the Year." We look forward to the opportunity to help create a safe environment for your community.

Respectfully,

Diversified Professional Design Services Team