

RESOLUTION NO. 2021- 204

RESOLUTION AUTHORIZING THE EXECUTION OF A SHARED SERVICES AGREEMENT BY AND BETWEEN THE CITY OF VINELAND AND THE VINELAND BOARD OF EDUCATION FOR THE DESIGN, ENGINEERING, ACQUISITION, INSTALLATION AND MAINTENANCE OF UHF NON-EMERGENCY RADIO SYSTEMS FOR THE CITY AND BOARD OF EDUCATION.

WHEREAS, the City of Vineland and Vineland Board of Education (VBOE) (collectively, Parties) utilize UHF Non-Emergency radios for their staff and employees which are in need of updating; and

WHEREAS, the Parties recognize the benefits and economies to be achieved by utilizing shared services for the design, engineering, acquisition and installation a UHF Non-Emergency Radio System to service the City and VBOE (Project) that can be done more efficiently in combination then separately and the Parties are authorized, pursuant to the Uniform Shared Services Consolidation Act, N.J.S.A.40A: 65-1, et seq., to enter into a shared services agreement with any other local unit to provide or receive any service that each local unit could perform on its own.

WHEREAS, the Parties intend upon entering into a Shared Services Agreement with the City of Vineland being the lead agency to retain an engineering consultant to design the Project and a firm for acquisition, installation and maintenance of the Project while sharing the cost therefore in accordance with a Shared Services Agreement in the form attached hereto; and

WHEREAS, the Parties wish to outline their respective duties and obligations relative to the completion of the Project, including maintenance of the radio system.

WHEREAS, the CFO has certified the availability of funds to complete the Project in accordance with the terms of the Shared Services Agreement attached hereto.

NOW THEREFORE BE IT RESOLVED by the Council of the City of Vineland that the Mayor and Clerk are hereby authorized to enter into a Shared Services Agreement with the Vineland Board of Education for the design, engineering, acquisition, installation and maintenance of a UHF Non-Emergency Radio System for the City of Vineland and Vineland Board of Education in the form and substance substantially similar as the Agreement attached hereto, subject to modifications as approved by the City Solicitor.

Adopted:

President of Council

ATTEST:

City Clerk

SHARED SERVICES AGREEMENT

by and between the

THE CITY OF VINELAND

AND

THE VINELAND BOARD OF EDUCATION

SHARED SERVICES AGREEMENT

THIS SHARED SERVICES AGREEMENT ("Agreement"), is made by and between the Vineland Board of Education with offices located at 61 West Landis Avenue, Vineland, New Jersey (VBOE), and the City of Vineland, a municipal corporation of the State of New Jersey with offices at 640 Wood Street, Vineland, New Jersey 08360 ("City").

RECITALS

- A. The City and the VBOE agree that a reduced expenditure of municipal and school tax dollars while providing a greater level of governmental services can be achieved through a shared services agreement;
- B. The VBOE and City have recognized their value to each other by providing reciprocal assistance when needed in the form of labor and equipment as well as essential ideas to benefit the community and our school children and young adults.
- C. The City and the VBOE further recognize the value of interlocal cooperation as a way of reducing duplication and overlap of services;
- D. In enacting the "Uniform Shared Services and Consolidation Act", N.J.S.A. 40A:65-1 et seq. (the "Act"), the New Jersey Legislature has encouraged any local unit of the State to enter into an agreement with any other local unit or units for the joint provision within their several jurisdictions of any service which any party to the agreement is empowered to render within its own jurisdiction as a means to reduce local expenses funded by property taxpayers;
- E. The City and the VBOE as "local units" defined by the Act are empowered to enter into shared services agreements;
- F. Through this Agreement, it is the intention of the parties to cooperate and collaborate with one another in order to share certain services and resources set forth herein to operate in a more cost-effective manner thereby providing more expeditious and efficient services to the tax payers;
- G. Acting pursuant to the Act, the City and the VBOE desire to enter into this Shared Services Agreement (the "Agreement") through which the City and the VBOE shall hereinafter share certain services and resources in order to decrease costs by the City and VBOE, more particularly, the design, acquisition and maintenance of UHF Non-Emergency Radio System to service both the City and VBOE;
- H. The City and the VBOE have authorized execution of this Agreement by official action at a public meeting.

NOW, THEREFORE, in consideration of the mutual promises, agreements and other considerations made by and between the parties, and pursuant to all applicable federal, state, and local laws, statutes, codes or ordinances, the City and the VBOE do hereby agree as follows:

1. **BASIC TERMS OF AGREEMENT.**

- a. The City has retained the services of V-Comm Telecommunications Engineering, Cranbury, New Jersey (V-Comm) as a consultant for design review, analysis, research and telecommunications engineering for UHF Non-Emergency Radio Systems for the City and VBOE in accordance with the proposal submitted by V-Comm. The total cost for V-Comm is \$16,250.00 and the parties shall share the cost equally. The City shall make the payments to V-Comm and the VBOE shall reimburse the City for 50% of the payments made within 10 days of the date payment is sent by the City.
- b. The UHF Non-Emergency Radio System shall consist of a 3 site, 8 channel Digital Trunked system to allow 7 continuous conversations, 30+ talk groups capable, built in redundancy, hardline patch to Vineland Police Department dispatch and portable and mobile radios. The City shall retain RF Design and Integration, Inc., Bensalem, Pennsylvania (RF) for acquisition of portable and mobile radios and installation of system components (infrastructure). Initial installation of System Components shall be at City Hall, the South East Water Tower and the West Forest Grove Water Tower. The cost is \$436,270.26. The parties shall share the cost equally and each party shall pay their respective 50% cost directly to RF. The City shall be the Lead Agency and shall coordinate installation of system components. The Chief of the Fire Department shall be the contact person.
- c. Each party shall be responsible for the payment of their proportionate share of the acquisition of radio units as specified in Exhibit A attached. The City cost is \$348,174.59 and the VBOE cost is \$246,680.72 as specified in Exhibit A attached. Each party shall make their payment directly to RF. Each party shall be responsible for any change orders for their respective system components.
- d. RF shall also provide an annual service contract. For the first year, the cost of the service contract shall be included in the initial installation and an additional annual service contract (Service Contract) shall be provided on a yearly basis thereafter. The City shall be the Lead Agency and all requests for service shall be made to the Chief of the Fire Department of the City of Vineland who shall immediately arrange for service in accordance with the Service Contract. The cost for the annual service contract is specified in Exhibit A. The parties shall share in this cost equally. The City shall make the payment and the VBOE shall reimburse the City for 50% of the payments made within 10 days of the date payment is sent by the City. The City shall provide notice of any increase in the cost of the annual service contract upon receipt of the same.

2. **TERM OF AGREEMENT**

The terms of this Agreement shall begin on February , 2021 and continue until the Project is complete. However, the Parties agree that the term of this Agreement related to the annual

service contract shall continue until terminated by either party by notice to RF and the other party in accordance with the annual maintenance agreement executed by the City. Should there be any penalty for cancellation, the party cancelling the agreement shall be responsible for any costs associated therewith and the party cancelling the agreement shall defend and hold harmless the other party for any action that may be brought for termination.

3. INSURANCE

The City and VBOE shall each maintain adequate property liability, and workers' compensation coverage related to the system components (infrastructure), its employees and their participation in this Agreement; and shall name the other party as an Additional Insured for all activities that occur and are directly related to the responsibilities under the terms of this Agreement. Said insurance shall include insurance on the system components (infrastructure). In no event shall either party be responsible for the cost associated with repairs and/or replacement of any portion of the system components of the other party.

4. INDEMNIFICATION

Each party shall indemnify, defend and hold the other harmless from all losses, claims, liabilities, injuries or damage caused by any breach or termination of this agreement and any subsequent annual maintenance contract. Such indemnification shall include payment of reasonable attorneys' fees and costs in defense of any claim. To the extent any damages are covered by applicable insurance, the City and the VBOE waive all rights against each other to the extent of such coverage.

5. DISPUTE RESOLUTION

In the event a dispute arises concerning the terms and conditions of this Agreement the parties mutually agree that said dispute shall be resolved by binding arbitration in accordance with the rules of the American Arbitration Association. Such appointment shall be made within 15 days after written notice by any party of the election to proceed with arbitration. Each party shall pay for their own arbitrator and shall share the cost of the third independent arbitrator as well as any costs for the proceeding. Each party shall be solely responsible for their own attorney fees and expenses related to retention of their own experts and witnesses.

6. CHOICE OF LAW

This Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey.

7. ENTIRE AGREEMENT

This Agreement sets forth the entire understanding of the parties hereto with respect to the services contemplated herein. No change or modification of this Agreement shall be valid unless the same shall be in writing and signed by all parties hereto. Notwithstanding the terms of this

paragraph, the parties shall be responsible for any future maintenance and service agreements on an equal basis.

8. SEVERABILITY

If any part of this Agreement shall be held to be unenforceable, the remainder of this Agreement shall remain in full force and effect.

9. TERMINATION.

This Agreement may be terminated, upon 30 days written notice to the other party or parties, as appropriate, as follows:

a. If, through any cause, a party shall fail to fulfill in timely and proper manner its obligations under this Agreement, or if a party shall violate any of the covenants, agreements, or stipulations of this Agreement, the aggrieved party shall thereupon give 10 days' written notice to cure and upon the failure of the breaching party to cure, the aggrieved party shall have the right to terminate this Agreement upon giving 10 days' written notice of such termination to the breaching party.

b. A party may terminate this Agreement for convenience at any time by serving a 30-day notice in writing to the other party.

c. Termination shall not operate to affect the validity of the indemnification provisions of this Agreement, or to prevent either party from pursuing any other relief to which it may be entitled pursuant to the terms of this Agreement.

10. LIMITATION OF DELEGATION.

This Agreement shall not be construed as delegating any authority other than the authority to provide the services and resources described in this Agreement, consistent with the terms and provisions of this Agreement.

Neither the City nor the VBOE intend by this Agreement to create any agency relationship or merger it being understood that both entities shall remain separate, independent local units.

11. ASSIGNMENT.

This Agreement shall not be assignable by either party, except upon written agreement signed by both Parties.

12. COMPLIANCE WITH LAWS AND REGULATIONS.

The City and the VBOE agree that they will at their own cost and expense promptly comply with, or cause to be complied with, all laws, rules, regulations and other governmental

requirements which may be applicable to its supplying of the resources and/or the performance of the services described in this Agreement.

13. FURTHER ASSURANCES AND CORRECTIVE INSTRUMENTS.

Each party shall execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such supplements hereto and such further instruments as may reasonably be required for correcting any inadequate or incorrect description of the Services or to correct any inconsistent or ambiguous term hereof.

14. NO ADDITIONAL WAIVER IMPLIED BY ONE WAIVER.

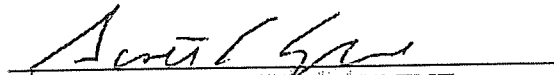
In the event that any agreement which is contained in this Agreement should be breached by any party and thereafter such breach shall be waived by the other party, as appropriate, such waiver shall be limited to the particular breach so waived and shall not be a waiver of any other breach hereunder.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

ATTEST:



VINELAND BOARD OF EDUCATION

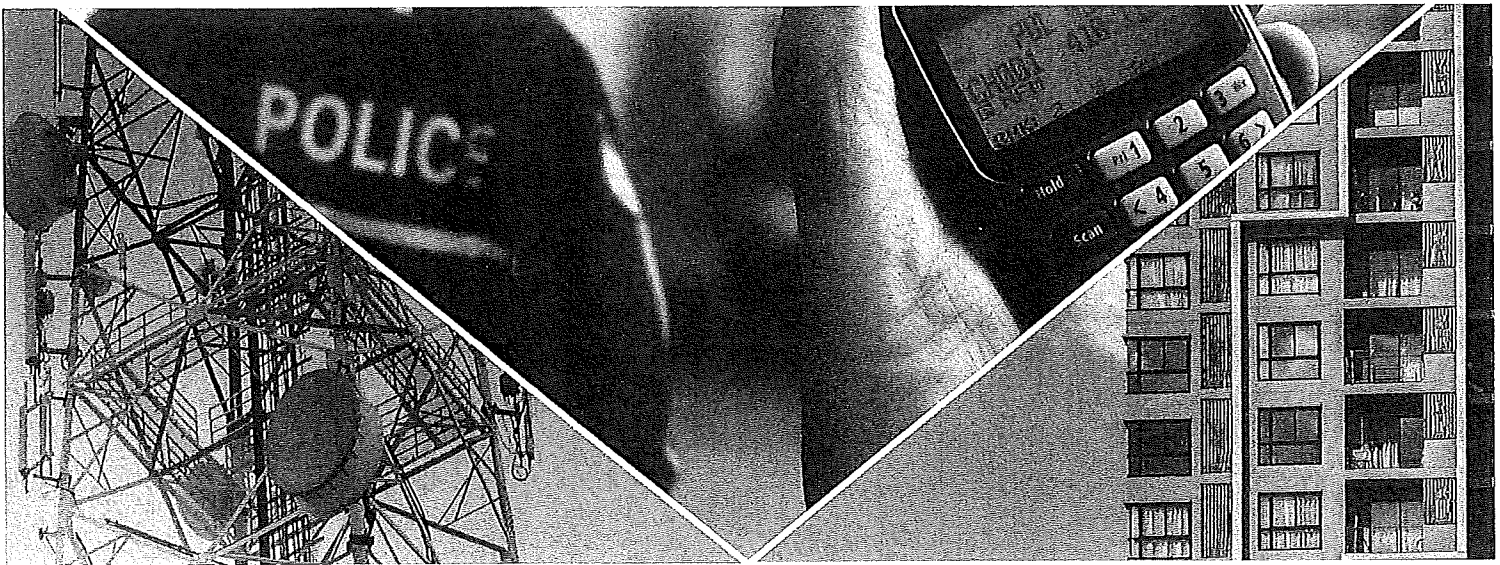

SCOTT E. ENGLISH, PRESIDENT

ATTEST:



THE CITY OF VINELAND


ANTHONY R. FANUCCI,
MAYOR, CITY OF VINELAND



VINELAND, NEW JERSEY

NON-PUBLIC SAFETY RADIO SYSTEM
ANALYSIS AND RECOMMENDATIONS

OCTOBER 7, 2020

CONTACT US

Dominic Villecco

President

(609) 655-1200 ext. 322

dominic.villecco@vcomm-eng.com

David Stern

Vice President

(609) 655-1200 ext. 323

david.stern@vcomm-eng.com

Donald Coover

Vice President

(610) 684-1000 ext. 230

donald.coover@vcomm-eng.com

Erica Villecco

Business Development Manager

(609) 655-1200 ext. 397

(609) 238-6895

erica.villecco@vcomm-eng.com

V-COMM'S OFFICE LOCATIONS

Central New Jersey

2540 US Highway 130

Suite 101

Cranbury, NJ 08512

o. (609) 655-1200

f. (609) 409-1927

Pennsylvania

736 Springdale Drive

Suite 300

Exton, PA 19341

o. (610) 684-1000

f. (484) 879-6963

South Jersey

5 Chestnut Street

Somers Point, NJ 08244

o. (609) 655-1200



V-COMM, L.L.C.



CONTENTS

Why Choose V-COMM.....	4
Who We Are.....	5
What We Do.....	6
V-COMM's Leadership.....	7
V-COMM's Relevant Experience	8
References	14
Project Description.....	15
Statement of Work.....	15
Vineland's Responsibilities.....	15
Cost Proposal	16
Cost Assumptions and Exclusions.....	16
Invoicing and Payment Schedule	17
Starting Date.....	18



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

WHY CHOOSE V-COMM

V-COMM, L.L.C., is pleased to submit this proposal to assist the City of Vineland, New Jersey with engineering and implementation assistance for a new non-public safety radio system, supporting its schools and Vineland Board of Education. V-COMM's advantage over competing firms is our range of expertise and breadth of experience. We are your one-stop-shop for **all** your networking needs. When it comes to your wireless network, we are the only firm you need to call to get it done right the first time.

Our Reputation

Our reputation is extremely important to us. We have provided RF Engineering services in the area for over 25 years and more than half of our customers were a referral or are a repeat client. We believe in doing what is right and will not finish a job until it is done correctly. We are thankful for all our clients who have supported and referred us over the years.

Our Local Presence

Our engineering offices are just around the corner and our personnel can be on-site in a moment's notice. Additionally, our executive team has designed networks in the Philadelphia Metro area for over 35 years and have intimate knowledge of the area. We have lived and worked in the area for so long that our familiarity with the region and the existing networks only strengthens our current skillsets.

Our Comprehensive RF Engineering Knowledge + Experience

We have worked on the largest variety of radio networks. From underground subway systems, indoor and outdoor stadiums, hospital campuses, to mountainous landscapes – there is no site or system we cannot design. We have provided interference mitigation for factories, international airports, hospitals, underground bus terminals, and public safety systems, including the World Trade Center in NYC. We know what is needed to achieve maximum performance from any type of site or system and will be the best firm to help Vineland successfully implement a new system to support its internal departments.

Our Top-Notch Team of Engineers

More than half of our personnel have been part of the V-COMM team for over a decade. Our engineers are equipped with a variety of knowledge, training, experience, problem solving skills and thorough hands-on experience in every sector of the RF engineering field. Their impressive credentials are a key component to V-COMM's successful design and implementation of vast networks across the Northeastern United States.

Our Priority is *You*

Our customers are our only priority. We do not sell equipment or favor any vendor. We work closely with our clients to determine their needs, particular situation, and timeline/budget to provide a solution that best meets these requirements. Our goal is for Vineland to implement the system that best serves its schools, residents and Board of Education.



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

WHO WE ARE

V-COMM was founded in 1995 by President Dominic Vilecco and Vice President David Stern. For the past 25 years, V-COMM has consistently delivered optimal results and is recognized today as a top consultant and leading provider of integrated network and radio frequency engineering across the nation. Our offices in Exton, Pennsylvania and Cranbury, New Jersey employ approximately 30 employees, those who were specifically recruited for their exceptional work ethics and credentials. Our advantage over nationwide firms is our truly local focus and specific and direct experience in the region.

We have worked with more than 70 percent of the counties in New Jersey alone on public safety systems. in addition to our many clients in Pennsylvania and New York, and others in Virginia, Maryland, New York, North Carolina, Massachusetts, New Hampshire and a few of their major cities, including Philadelphia, Boston, New York City and Newark.

V-COMM, L.L.C. also provides wireless infrastructure management services of cell towers, small cells and in-building systems, including lease negotiations, rental payment management, regulatory compliance, bid preparation and project management. We have assisted many clients, both governmental and private, over the last ten years.

We have worked with all four major wireless carriers in the United States to help design and optimize some of the largest commercial communications networks in North America. Our reputation among our clients has helped us become the trusted partner of multiple transportation authorities along the east coast to design, test and measure both above and below ground signal performance and network traffic from station to station, for wireless and public safety.

We are also qualified by the FCC and US Department of Justice as telecommunications engineering experts providing testimony and technical analysis on major industry initiatives.



WHAT WE DO

Each project we take on begins with thorough research of our client's specific needs. We carefully assess the situation at-hand, then provide a completely customized solution we manage from start to finish. With our highly skilled professional staff led by our executive management team, each with more than 35 years of experience in the wireless industry, we have fully expanded our service offerings to include a full range of turn-key network and radio frequency engineering support, including, but not limited to the following:

Public Safety and Non-Public Safety Radio Systems:

- P25 Phase II/DMR network design, consulting, specification and implementation
- In-building coverage testing, certification, design, installation
- FCC licensing
- Frequency planning
- NFPA/IFC testing, measurement, design and implementation of public safety in-building radio coverage
- Traffic and network capacity engineering, forecast & management
- System integration
- Technology evaluation
- Project management
- Regulatory advisory assistance
- Interference mitigation
- RF exposure testing and certification

Telecommunications Engineering Services:

- In-building DAS design, testing and implementation of public safety and commercial wireless networks
- RF and network design, testing and optimization
- FCC and FAA licensing & regulations
- Network Project and Construction Management
- Expert witness testimony
- Intermodulation/Interference Studies and Mitigation
- Coverage Testing, PIM Testing, and Antenna/Line Sweep Testing

Wireless & Other Capabilities:

- BDA testing
- Expert witness testimony
- Interference discovery & mitigation
- Cell tower management and design
- Small cell master planning and design
- Our technology experience includes: 5G, LTE, CDMA, TDMA, FDMA, OFDM, P25 Phase 1 & 2, microwave, point-to-point, mesh solutions, TDM, IP, VoIP, circuit switched, packet switched, SONET, ATM, frame relay & fiber optics

Our staff and management teams are technology and safety certified with, but not limited to, the following organizations:

- **Transportation:** Amtrak, MTA, NYCT, PATCO, SIR, SEPTA and WMATA
- **Equipment and software:** Anritsu, iBwave Level 2 and 3, JMA Wireless and Keysight
- **General safety:** OSHA and SWAC



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

V-COMM'S LEADERSHIP

Dominic Villecco | *President and Founder*

Dominic Villecco has more than 35 years' experience in the telecommunications industry, 23 of which he has led V-COMM through its continued success. He is qualified as an expert witness in telecommunications engineering and testified in federal court on behalf of the FCC and US Department of Justice in two high-profile cases. Prior to founding V-COMM, he led all engineering efforts for Comcast Cellular Communications, Inc. and Comcast International Holdings as Vice President of Engineering. He also helped design the first regional cellular network in the United States, with proprietary automatic call delivery among independent carriers. Mr. Villecco was previously named Vice Chairman of the Board of Advisors for Drexel University's Electrical and Computer Engineering Department, and Chairman of the Technical Subcommittee for APCO Region 28 and its 700MHz initiatives. In 2001, he received the Distinguished Alumnus Award from Drexel's Engineering and Computer Engineering Department for his continued success. Mr. Villecco is now the Vice President of the Board of Trustees for the New Jersey Wireless Association, and also serves as its Public Safety Committee Chair.

David Stern | *Vice President and Co-founder*

With more than 35 years in telecom engineering, David Stern is an expert in all wireless transmission formats and data technologies, including: P25, CDMA, GSM, LTE, and UMTS. As a member of V-COMM, Mr. Stern was a key driver in the launch of the first PCS network in New York City and directed the network redesign of several top ten markets, increasing overall network capacity by 150 percent. In addition, Mr. Stern developed interference software to minimize separation between tenants for a leading tower company. Before joining V-COMM, Mr. Stern directed the implementation of emerging digital technologies for Comcast Cellular Communications, Inc. Before Comcast, he worked as Program Manager for Motorola Solutions, Inc. where he was responsible for new systems and growth product implementation in the entire New York & New Jersey regions. Mr. Stern sits on the FCC's Regional Planning Committees in Regions 8 and 28, providing guidance and frequency planning, 700 and 800 MHz usage and interference issues.

Donald Coover | *Vice President and Principal*

Donald Coover has more than 35 years' experience in networking, interconnect, telephony switching and all major media formats, with specific expertise in voice, data and video. Mr. Coover is also an expert in many wireline, transport and connectivity technologies, including VoIP, Fiber Optics and microwave and other point-to-point mesh solutions. As a member of V-COMM, he oversees the design and implementation of multiple projects, including commercial and private voice and data networks, as well as public safety networks and dispatch centers. Mr. Coover helped integrate several wireless acquisitions into one large regional network, resulting in saving millions of dollars by improving network efficiencies. Previously, Mr. Coover was leader of the network engineering team for Comcast Cellular Communications, Inc., where he oversaw system implementation and managed day-to-day operations. Before Comcast, he spent 10 years with Metromedia – ITT. Mr. Coover began his career at WWVU-TV after attending West Chester University. He is a current member of APCO Intl.



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

V-COMM'S RELEVANT EXPERIENCE

V-COMM has provided similar services to those that Vineland is requesting for a number of other states, counties and municipalities throughout the US. V-COMM is proud of its accomplishments in supporting government agencies. Detailed descriptions of this experience can be found below and are only a small part of what the V-COMM team can provide for Vineland.

PROJECT: 700 MHz System/Tower Design and Project Management Services, VHF System Expansion and FCC Licensing
CLIENT: Cumberland County Emergency Services and Public Protection
LOCATION: Cumberland County, New Jersey

Cumberland County, NJ commissioned V-COMM to perform a PSAP consolidation study to determine if the independent PSAPs servicing the Police Departments at the three largest towns in the county could merge into the County Communications Center. The County Center handles all Fire and EMS calls as well as some of the police calls for the region. The study was completed and V-COMM presented its findings to the Board of Chosen Freeholders, and then Director James Matlock. As part of the same project, V-COMM was tasked to inventory, develop budgets and project timelines for the narrowbanding of all radios dispatched by the County Communications Center. This information was analyzed and presented to the administration at the County Communications Center. Additionally, V-COMM acquired county-wide 700 MHz frequencies and also developed technical specifications, bid specifications and provided construction management services for several new towers needed for the planned 700 MHz system. Tower design and construction included sufficient capacity to support current VHF systems, planned 700 MHz systems and projected future loading scenarios, to ensure the County was building infrastructure which would service its needs well into the future.

Finally, V-COMM was recently engaged with the County to manage the implementation its new 700 MHz countywide public safety radio system, with expected completion in the 2021-2022 timeframe.

PROJECT: DRPA 800 MHz Subway DAS Network
CLIENT: Delaware River Port Authority (DRPA)
LOCATION: Camden, NJ and Philadelphia, PA

V-COMM was engaged as part of a Design-Build team to provide 800 MHz Public Safety service in subway tunnels linking South Jersey to the City of Philadelphia. The new DAS network was developed to be expandable to include commercial wireless carriers as a second phase. V-COMM's responsibilities included all RF, mechanical and electrical design, drawings, specifications, Bill of Materials, documentation and ATP testing. Design requirements included 95% coverage of subway venue with a DAQ of 3.4. Final Design included 99% coverage with a DAQ of 4.5. V-COMM also performed design services for third party DAS networks in this same subway venue.

PROJECT: MPE Reports
LOCATION: PSE&G Telecom Poles

V-COMM is a PSE&G approved firm to provide MPE Reports and services on PSE&G structures. V-COMM is currently providing these reports for hundreds of PSE&G Telecom Pole sites for various carriers to confirm that installation meets compliance.



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

PROJECT: 700/800 MHz PSIC P25 Phase 2 System, and other projects
CLIENT: State of New Jersey – Office of Information Technology
LOCATION: State of New Jersey

V-COMM was engaged by the State of New Jersey Office of Information Technology (NJOIT) to provide engineering and consultative direction in the development of technical specifications to ensure compliance with State and Federal regulations regarding LTE, and 3GPP standards, prior to FirstNet.

V-COMM extended telecommunications consultative support as required for the development of a comprehensive understanding and actionable plan for NJOIT regarding 3GPP/LTE standards. This project was accomplished in phases, culminating with the issuance by NJOIT of an RFP for the purpose of securing vendors for its 700MHz LTE broadband network. The project was temporarily placed on hold pending Federal action related to the development of FIRSTNET board and the national deployment specifications.

V-COMM also developed a Comprehensive Plan for Public Safety towers throughout the NJ Pinelands Conservation District on behalf of seven counties covered by Pinelands. This plan was sponsored and directed by OIT and NJ DHS and included both narrowband voice and broadband data (LTE) communications needs.

V-COMM has performed statewide 700 and 800 MHz frequency planning and coordination through a sub-contract arrangement. Activities included coordination with neighboring states, interference analysis and development of the State's 700 and 800 MHz frequency plans. V-COMM also prepared county based frequency acquisition services and coordination. Additionally, V-COMM performed 800 MHz coordination and FCC licensing services for the NJ Highway Authority, which includes the NJ Turnpike and Garden State Parkway for the length of the state.

PROJECT: 700/800 MHz P25 Phase 2 System, and other projects
CLIENT: Cherry Hill Township Police Department
LOCATION: Cherry Hill, New Jersey

The Township of Cherry Hill, NJ contracted V-COMM to develop specifications and master tower lease documents to maximize rental opportunities while co-locating carriers with its public safety communications systems on a large multi carrier communications tower. V-COMM assisted with leasing issues and recommendations as well as carrier coordination.

V-COMM developed interference mitigation requirements to ensure harmonious co-existence on the Township's tower. V-COMM is currently engaged with the Township to manage the installation of these wireless carriers to ensure compliance with specifications and interference free operation.

V-COMM was also contracted to develop various options for migration from the CHPD EDACS system to a new P-25 Phase 2 - 700/800 MHz system, and move its Department of Public Works over to a non-public safety radio system. The engagement included assessment, recommendations, system design, microwave interconnection and implementation. The project included the building of a new 700/800 MHz site with integration into the Camden County 700/800 MHz P25 Phase 2 network, and the establishment of an 800 MHz public works radio system. V-COMM completed this project with the Township which was fully operational in early 2019.



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

PROJECT: PSAP Recommendations and 700 MHz System Deployment
CLIENT: Cape County Emergency Management Communications
LOCATION: Cape May County, New Jersey

As a result of mandates by the State of New Jersey legislature, potential consolidation of various municipal services, including public safety dispatch operations, are being considered by many of the towns in an effort to improve services while providing potential cost reductions in ongoing operations. V-COMM was engaged by the County of Cape May to perform a Public Safety Answering and Dispatch (PSAP / PSDP) Consolidation Feasibility Study.

V-COMM's task was to evaluate the status of E911 answering and dispatch operations of the twelve municipal and single county backup PSAPs operating within the county. Information regarding facilities, power, PSAP equipment, staffing, training, scheduling and finances was obtained from each operation. Along with site visits to each of the facilities, V-COMM also met with each of the potentially impacted interested groups including the Mayors, fire, police and emergency services to gather firsthand experience, input and concerns from the end users. Additionally, V-COMM met with the State of New Jersey Office of Emergency Telecommunications Services to ensure inclusion of potential state directives and next-gen 911 (NG911) standards in any proposed solution.

V-COMM compiled the acquired data and end user feedback as part of the final report and recommendation to County. As part of this report, along with the primary recommendations, alternatives to a single PSAP consolidation were provided. The report determined the best ways to minimize impact to the current operations and included consideration to agencies. A conceptual design, associated cost, implementation strategies and estimated project schedule were included in the final report. V-COMM also acquired 700 MHz channels for the County as a foundation for its planned 700 MHz countywide public safety radio network expansion. This project is currently in progress and will include the addition of three new sites and interconnection to the NJ State 700/800 MHz PSIC network. The project includes vendor specifications, procurement assistance, site engineering and implementation assistance.

Currently, V-COMM is engaged to manage the implementation of the County's new 700 MHz P25 Phase 2 system, with system acceptance expected in the 2021 timeframe.

PROJECT: DAS Relocation Design and Installation Management
CLIENT: Comcast Spectacor + NBC Sports Philadelphia
LOCATION: Wells Fargo Center Complex, Philadelphia, Pennsylvania

As part of a multi-year, multimillion dollar on-going renovation project at the Wells Fargo Center in Philadelphia, PA, V-COMM has been engaged by both Comcast Spectacor and Comcast NBC Sports Philadelphia to oversee the required relocation of the existing AT&T Neutral Host Distributed Antenna System (DAS). Working with Comcast Spectacor's prime construction vendor, V-COMM's responsibilities include providing RF engineering, project and construction management, DAS materials, and system design alterations to facilitate the building changes taking place. Specifically, V-COMM reviews the proposed facility renovations, analyzes potential impact to RF signal coverage, and develops practical design alterations and recommended solutions to present to AT&T for approval. Once approved, V-COMM provides turn-key services to support equipment changes and relocation in conjunction with the construction taking place during each phase of work. Final system verification and updated coverage designs are provided to AT&T for follow-up verification and system performance testing.



PROJECT: 700/800 MHz P25 Phase 2 System Design and Deployment
CLIENT: Camden County Department of Public Safety
LOCATION: Camden County, New Jersey

V-COMM was contracted by the County to perform an analysis, field testing, and provide expansion plans and a long term strategic plan of 500/700 MHz trunking system for complex multi-jurisdiction configuration. Primary concern was given to interoperability considerations for local municipalities, adjacent counties, State Police, Delaware River Port Authority, and City of Philadelphia. Camden County is part of the Southeast Pennsylvania Counter Terrorism Task Force Committee, Urban Area Security Initiative (UASI) which is a Committee of technical and operational representatives of the 10 counties surrounding Philadelphia (5 in New Jersey and 5 in Pennsylvania). V-COMM's contract included working with the County on 700 MHz P25 – Phase 2 system development, site acquisition, RFP development, system procurement, implementation oversight, and integration, through the completion of system implementation. V-COMM was also tasked with paging system expansion design (simulcast) and development of narrowband capable equipment inventories, database creation and maintenance, and conversion plans. This system was launched in 2012 as the first P25 Phase 2 system in NJ. System design included ISSI links/connection to the State of New Jersey Statewide P25 system. V-COMM also prepared the County's application to the FCC for new 700 MHz Public Safety channels to supplement their existing system. Specifically, V-COMM prepared the submission to the Region 28 Planning Committee and represented the County's interest at the Regional Planning Tech Committee meetings. All applications were approved upon submission. Additionally, V-COMM acquired 800 MHz channels to support forecasted system capacity requirements as per V-COMM's traffic projections. V-COMM also performed Intermodulation Studies on existing towers to ensure frequency compatibility. Further, V-COMM extended systems coverage to Delaware River Port Authority's PATCO subway DAS network in Camden, NJ. V-COMM also assisted with the migration of the Camden City Police Department to the new County P25 Phase 2 system. Migration included the requirements for dispatch compatibility, power systems, antenna systems and specific coverage areas within the Camden City jurisdiction in order to manage simulcast zones while incorporating the City's existing 800 MHz channels into the new 700/800 MHz system. Finally, full encryption of all law enforcement radios was an absolute requirement in the City of Camden, due to its crime rate history. V-COMM worked closely with Camden City PD brass to implement this encryption, for the safety of its officers and citizens. V-COMM developed repeater specifications for a new highway interchange project on Interstates 76 and 295 and State Route 42, where above ground highway tunnels are being built. V-COMM is currently working with the County to ensure coverage for Camden and adjacent Gloucester Counties as well as the NJ State Police. The first phase of this project is expected to be completed by Q1 2019.

PROJECT: Tower Specifications, FCC Licensing, Microwave Radio
CLIENT: Hunterdon County Office of Emergency Management
LOCATION: Hunterdon County, New Jersey

V-COMM was contracted to prepare tower specifications, bid documents and construction management of a 200 foot tower located at the County Dispatch Center. The project also included microwave frequency acquisition and licensing as well as equipment specifications for procurement under State Contract guidelines. V-COMM is currently under contract to provide similar services for another new tower in the County to support its public safety system needs. V-COMM also provided UHF frequency acquisition and FCC licensing as part of the County's overall upgrade project. V-COMM is currently engaged in the design and specifications of a backup dispatch facility in conjunction with a neighboring County.



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

PROJECT: P25 Phase 2 Design and Deployment and Various Projects
CLIENT: Burlington County Department of Public Safety
LOCATION: Burlington County, New Jersey

V-COMM was contracted by the County to perform an analysis, and provide expansion plans and development of a long term plan for conversion of its 500 MHz trunked radio system to a new 700 MHz P25 Phase 2 trunking system. Analysis and recommendations included system design, microwave design, subscriber specifications and budget preparation.

V-COMM also prepared the County's applications to the FCC for new 700 and 800 MHz Public Safety channels to supplement their existing system based upon V-COMM's system traffic projection. Specifically, V-COMM prepared the submissions to the Region 28 Planning Committee and represented the County's interest at the Regional Planning Tech Committee meetings.

V-COMM's current contract includes working with the County on 700 MHz system development, site acquisition, lease negotiation, RFP development, system procurement, implementation oversight, and integration, subscriber equipment specification and coordination through the completion of system implementation. V-COMM was also tasked with IP microwave network design and paging system expansion design (simulcast) and conversion plans. V-COMM is currently engaged with Burlington County to execute these plans. System cutover and acceptance was accomplished in August 2020, with legacy system removal continuing through the end of 2020.

V-COMM assisted with leasing issues and recommendations as well as carrier coordination. V-COMM developed specifications and master tower lease documents to maximize rental opportunities while co-locating carriers with its public safety communications systems on a large multi-carrier communications tower.

PROJECT: 700/800 MHz P25 Phase 2 System, and other projects
CLIENT: City of Philadelphia, Pennsylvania
LOCATION: City of Philadelphia, Pennsylvania

The City contracted V-COMM for technical and program oversight of the upgrade of 800 MHz radio dispatch consoles for the Police Department, the Fire Department, the Office of Emergency Management and Unified Dispatch of Municipal Services.

- **Philadelphia International Airport:** The City contracted V-COMM to assist the Airport in planning and implementation activities for upgrading 800 MHz radio system dispatch consoles at Philadelphia International Airport. These consoles are used by Airport Communications, Airport Security, Philadelphia Police Department and Airport Operations.
- **Wells Fargo Center:** Support for in-building public safety for the Democratic National Convention.

Previous contracts with the City:

- Provide analytical engineering analysis work in support of the City's 800 MHz public safety radio system.
- Assist with the City's wireless broadband project. Details included assessment of the purchased system, development of Pilot Test Plans for Police, Fire & Public Works department and discussion of integration of the network into the City's future 700 MHz LTE system prior to the project being placed on hold.



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

PROJECT: Radio System Assessment, Frequency Acquisition, Expansion Plans
CLIENT: Ocean County Department of Management & Budget Wireless Division
LOCATION: Ocean County, New Jersey

V-COMM reviewed Ocean County's existing Communications Technology and projected costs to upgrade or replace existing equipment to narrow band technology, including additional tower sites, microwave, and channel capacity.

V-COMM performed field testing and analysis for the County and developed an expansion plan and a long term strategic plan of 500 MHz trunking simulcast, multi-jurisdictional system with interoperability considerations for municipalities throughout the County. The expansion plan identified 4 new radio repeater sites and 8 new satellite receiver sites to improve portable and In-Building coverage throughout the County. V-COMM also prepared FCC/APCO frequency acquisition and coordination. V-COMM also developed an FCC Waiver to address DTV interference issues.

V-COMM also prepared the County's application to the FCC for new 700 MHz Public Safety channels to supplement their existing system. Specifically, V-COMM prepared the submission to the Region 28 Planning Committee and represented the County's interest at the Regional Planning Tech Committee meetings. The application was approved upon submission.

PROJECT: Various Public Safety Projects
CLIENT: New York City Transit (NYCT), NYPD, MTA
LOCATION: New York City, New York

NYPD UHF Subway Radio Distributed Antenna System

V-COMM, under subcontract arrangement to Parsons, provided RF Engineering services to investigate and design modifications to the existing MTA-NYPD UHF subway distributed antenna systems to improve coverage for the NYPD into select subway stations, stairwells and other station access points. Tasks included RF coverage testing, mapping, site surveys, link budgets, BDA modifications, antenna placement, antenna cables, interconnect, test plans, and detailed technical specifications, follow up bid support and RFI responses.

Department of Subways New 800 MHz Above Ground Radio System

V-COMM, under subcontract to Jacobs Engineering, provided RF Engineering services to design and specify a new Department of Subways Above Ground Radio System. The new 800 MHz system will replace an aging UHF-T system for above ground communications. Services included RF Design, coverage testing, mapping, site surveys, link budgets, base station location selection, antenna placement, antenna cables, test plans, interconnect into the NYCT's existing data network and operations centers, and detailed technical specifications, follow up bid support and RFI responses.

Department of Buses New 700/800 MHz TETRA Radio System

V-COMM, under subcontract to Parsons, provided RF Engineering services to prepare and file all FCC license modifications to support the implementation of the NYCT's Department of Buses new 700/800 MHz TETRA Radio System. V-COMM reviewed frequency plan requirements and prepared required interference analysis and required documentation for use of the channels. For 700 MHz channels, V-COMM demonstrated no increase in interference to the existing licensees and CAPRAD allocations, per FCC and RPC Region 8 guidelines. For 800 MHz channels, V-COMM included DHAAT studies, Letters of Concurrence and "short space" waivers as required. For all applications, V-COMM prepared and filed FCC Form 601s along with supporting documentation, including slow growth waivers, and tracked applications through coordination and licensing.



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

REFERENCES

V-COMM invites Vineland to contact its references for confirmation and verification of these accomplishments. Review of the V-COMM website www.vcomm-eng.com is also welcomed.

1. Cumberland County, New Jersey

Gabriel R. Scarpa, Director/OEM Coordinator
856-455-8526, Extension 490
gabrielsc@co.cumberland.nj.us

2. Cape May County, New Jersey

Martin Pagliughi, Director of Emergency Management Communications
(609) 600-5070
martin.pagliughi@co.cape-may.nj.us

3. Camden County, New Jersey

Robin J. Blaker, Director, Department of Public Safety and Juvenile Justice
(856) 783-4808
robin.blaker@camdencodps.org

4. Burlington County, New Jersey – Public Safety Services

Joseph T. Brickley, P.E., County Engineer
(856) 642-3700
jbrickley@co.burlington.nj.us

5. State of New Jersey – Office of Information Technology

Craig Reiner, Director of Emergency Telecommunications Services
(609) 376-7196
craig.reiner@tech.nj.gov



PROJECT DESCRIPTION

This Statement of Work offers RF Engineering/Consultative Services to Vineland, New Jersey for the purpose of providing engineering assistance and recommendations associated with the City's deployment of a new DMR non-public safety radio system to support its schools and the Vineland Board of Education. All services will be performed in a professional manner consistent with industry standards and practices. Additional services requested by Vineland will be quoted separately as additional projects.

STATEMENT OF WORK

V-COMM will review proposals by state contract vendors for the City's Non-Public Safety DMR Radio System, as well as a system assessment, develop a project budget and recommendations. V-COMM will perform the following activities:

Recommended solution(s) and conceptual system design:

1. Review options proposed by state contract vendors and make recommendations for the City of Vineland and the Vineland Board of Education and Bus System.
 2. Site survey and analysis of all public safety radio sites, to assess facilities, capacity, power, and tower equipment.
 3. Develop a formal report of solutions which includes:
 - a. Conceptual design and recommendations, along with operational considerations for a city wide radio communications system.
 4. Conceptual Design will include:
 - a. Coverage study
 - b. All infrastructure needed:
 - i. Site locations
 - ii. Towers
 - iii. Equipment rooms/shelters
 - iv. Repeaters
 - v. Identify required frequencies
 - vi. Microwave and/or fiber optic interconnection facilities
 - vii. Backup power
 - viii. All peripheral and ancillary equipment
 - b. Dispatch Center requirements and upgrades to support new system and interoperability with Cumberland County 700 MHz Digital Trunk Radio System.
 2. Develop a budget for the rest of the project, including radio equipment, ancillary equipment sites improvements, engineering services and system test.
-

VINELAND'S RESPONSIBILITIES

1. Provide access to all radio system components, tower locations, dispatch center and agencies needed to perform the above and agreed upon analysis and recommendations.
2. Provide all existing and available system documentation needed to document current system and perform site surveys needed to prepare recommendations for upgrades and expansions to accommodate the newly proposed system.



3. Access to all departmental personnel, radio systems, inventory, etc. necessary to perform inventories and analysis.
4. Copies of all existing FCC licenses, existing system documentation and existing site/facility information necessary to perform the required analysis.
5. Point of contact for each department responsible to assist in gathering required documentation.
6. Coordination for all site visits to existing Vineland radio sites.
7. Documentation for all existing Vineland Radio and Dispatch sites.

COST PROPOSAL

This is a Time and Materials (T&M) proposal.

Telecommunications Engineering Services performed under this proposed agreement will be performed on a Time and Materials (T&M) basis at the hourly rate below for services provided by members of our professional staff. The costs below are estimated based upon supplied information. Costs may vary depending upon factors out of V-COMM's or Vineland's control including site availability, frequency availability, vendor and/or union delays, COVID-19 and Homeland Security issues.

Task Description	Estimated Man-Hours	Hourly Rate	Estimated Cost
Recommended Solution and Conceptual Design	90	\$ 175	\$ 15,750
Estimated Expenses			\$ 500
Estimated Project Total	90		\$ 16,250

COST ASSUMPTIONS AND EXCLUSIONS

1. Estimated costs quoted in this proposal include estimated labor and expenses to complete tasks outlined above. This project will be performed on a Time and Materials basis. As such, only actual time and expenses incurred will be invoiced. If additional time is needed for a particular task, V-COMM will notify the City and mutually agree with the City on any associated additional costs, prior to expending any such costs.
2. Expenses are estimated above. Travel to and from Vineland locations from V-COMM offices is not included in the above hourly rates and will be invoiced at cost and according to IRS Rules.
 - a. Mileage costs for use of personal cars will be reimbursed based upon IRS guidelines.
 - b. Parking and tolls will be reimbursed with receipts.
3. This proposal assumes all site visits (three locations) are performed in a single day.
4. System testing and troubleshooting are not included in this proposal, and can be added at an additional cost if/as needed.
5. FCC frequency licensing is not included in this cost proposal.
6. This proposal does not include structural evaluations, project management, lease evaluations/negotiations or other site engineering related activities.



7. V-COMM is not providing any hardware, software or installation services as part of this proposal.
8. The price reflected in this proposal does not include any building materials, construction cost, construction or electronic equipment, product or vendor costs associated with the plans or recommendations provided by V-COMM.
9. The price reflected in this proposal does not include any additional cost associated with the delay of this project as a result of vendor delays, union disputes, COVID-19 or Homeland Security issues.
10. Costs quotes assume the duration of project will not extend beyond four (4) months from the date of notice to proceed from Vineland. V-COMM reserves the right to revisit pricing if the project extends beyond 4 months, through no-fault of V-COMM.
11. Price and tasks outlined are negotiable to best meet the needs of Vineland.
12. Specific In-building coverage predictions or testing is excluded and can be performed at an additional cost.
13. Continuous Wave (CW) testing at specific tower locations is excluded and can be performed at an additional cost.
14. Structural analyses and tower climbing audits on proposed or existing towers are not included and will be quoted separately.
15. This quote is specific to the engineering tasks outlined within this Scope of Work (SOW). Additional projects will be quoted separately as individual projects.
16. Should Vineland direct a change in the Work, the change shall be incorporated into the agreement by a written Change Order approved in advance of such work in writing by Vineland and V-COMM, stating their agreement upon the change or changes in the work and the necessary adjustments.
17. V-COMM management will perform coordination of personnel. These personnel will be located in either V-COMM's offices throughout the duration of the project. All work will be performed during a normal workweek, Monday through Friday.

INVOICING AND PAYMENT SCHEDULE

Engineering services will be invoiced on a monthly basis or as negotiated with Vineland. Payments shall be due upon receipt of invoice. Any invoices which are paid after thirty (30) days of invoice date will incur a late payment charge of 1 1/2 % per month.

All invoices should be mailed to the following address to the attention of Vineland representative named below:

Vineland, New Jersey

Attention: _____

All payments are to be mailed to the following address below:

V-COMM, L.L.C.
5 Chestnut Street
Somers Point, NJ 08244
Attention: Accounts Payable



2540 U.S. Highway 130, Suite 101, Cranbury, NJ 08512
P: (609) 655-1200 | F: (609) 409-1927

736 Springdale Drive, Suite 300, Exton, PA 19341
P: (610) 684-1000 | F: (484) 879-6963

STARTING DATE

The V-COMM team is ready to begin this project for Vineland, New Jersey upon execution of an agreement and receipt of a Purchase Order authorizing V-COMM to commence services, along with receipt of all necessary information. This offer and pricing is good for 90 days.

Agreed to this **7th** day of **October, 2020**.

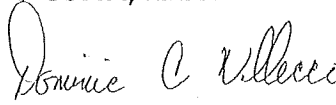
Agreed by:
Vineland, New Jersey

Authorized Signature

Printed Name

Title of Signatory

Accepted by:
V-COMM, L.L.C.


Dominic Villocco
President



R.F. Design & Integration Inc.
 792 Haunted Ln
 Bensalem, Pa. 19020
 215.245.1700 Office
 215.244.1960 Fax
 rfdesign-int.com

Estimate

Date	Estimate #
12/17/2020	6708

Name / Address
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Ship To
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Rep	Terms	Project
TGM	Milestone	

Item	Description	Qty	U/M	Rate	Total
NXR-5800K	Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	24	ea	5,333.00	127,992.00
NJST-EFJ Equipment	NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911			-20.00%	-25,598.40
KSGPA23413	Repeater Station Amplifier, 450-512MHz, 3W Input, 50-100W Output	24	ea	2,165.00	51,960.00
NJST-EFJ Equipment	NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911			-20.00%	-10,392.00
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	3	ea	3,333.00	9,999.00
NJST-EFJ Equipment	NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911			-20.00%	-1,999.80
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	24	ea	475.00	11,400.00
NJST-EFJ Equipment	NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911			-20.00%	-2,280.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	3	ea	1,200.00	3,600.00
NJST-EFJ Equipment	NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911			-20.00%	-720.00
KSGMS100P1	15A POWER STRIP, 19" RACKMOUNT, 1 RU	3	ea	91.00	273.00
NJST-EFJ Equipment	NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911			-20.00%	-54.60

	Total
--	-------



R.F. Design & Integration Inc.
 792 Haunted Ln
 Bensalem, Pa. 19020
 215.245.1700 Office
 215.244.1960 Fax
 rfdesign-int.com

Estimate

Date	Estimate #
12/17/2020	6708

Name / Address
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Ship To
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Rep	Terms	Project
TGM	Milestone	

Item	Description	Qty	U/M	Rate	Total
KSGPG91800 NJST-EFJ Equipment	Repeater Trunking Feature NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911	24	ea	1,500.00 -20.00%	36,000.00 -7,200.00
KSGPG91810 NJST-EFJ Equipment	Multi-Site Networking Feature NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911	1	ea	11,667.00 -20.00%	11,667.00 -2,333.40
KSGPGKEYSM NJST-EFJ Equipment	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911	1	ea	583.00 -20.00%	583.00 -116.60
KSGPGKEY02 NJST-EFJ Equipment	Grade-2 Limited Access Secure USB Programming Key NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911	1	ea	167.00 -20.00%	167.00 -33.40
KPG-D2NK NJST-EFJ Equipment	License Key for KPG-D2NK, Programming Software for NXR-5000 Repeater (Windows Vista/7/8/8.1) NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911	1	ea	103.25 -20.00%	103.25 -20.65
KPT-300LMC L-5000	License Management Client Account Registration Key	1	ea	0.00	0.00
KSGCB10206	Programming USB A/B Cable	1	ea	0.00	0.00
KSGNS10024	Programming USB A/B Cable	3	ea	17.00	51.00
	Rack Mounted 24-Port Managed Network Switch	3	ea	375.00	1,125.00

Total



R.F. Design & Integration Inc.
 792 Haunted Ln
 Bensalem, Pa. 19020
 215.245.1700 Office
 215.244.1960 Fax
 rfdesign-int.com

Estimate

Date	Estimate #
12/17/2020	6708

Name / Address
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Ship To
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Rep	Terms	Project
TGM	Milestone	

Item	Description	Qty	U/M	Rate	Total
NJST-EFJ Equipment	NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911			-20.00%	-225.00
KSGRT10004 NJST-EFJ Equipment	4-Port Managed VPN Router NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911	3	ea	375.00 -20.00%	1,125.00 -225.00
KSGUT10001 NJST-EFJ Equipment	1 RU Mounting Tray (provides mounting space for up to two accessories) NJ State Contact T0109 Discount on EF Johnson Radio Equipment & Accessories EF Johnson Contract # 83911 EF Johnson Contract # 83911	1	ea	50.00 -20.00%	50.00 -10.00
NX-3820HGK-TR	UHF (450 - 520MHz), 45 Watts, 512 CH, 128 Zones with NXDN Trunking and S-Trunking	2	ea	702.00	1,404.00
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-421.20
MISCELLANEOUS LABOR	MISC MATERIALS USED IN SYSTEM INSTALLATIONS, INCLUDING CABLE, SIDE ARM MOUNTS, LIGHTNING ARRESTORS, SWITCH AND RACKS			11,715.00	11,715.00
LABOR-CONFIG	System Install. RFDI to program, pre-stage and optimize all equipment for 3 sites at RFDI location. RFDI to then install all equipment at each location, including racking all material, combiners, power supplies	1		75,075.00	75,075.00
593213	450-470 8.5dBi Omnidirectional Antenna	3	ea	821.00	2,463.00

Total



R.F. Design & Integration Inc.
 792 Haunted Ln
 Bensalem, Pa. 19020
 215.245.1700 Office
 215.244.1960 Fax
 rfdesign-int.com

Estimate

Date	Estimate #
12/17/2020	6708

Name / Address
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Ship To
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Rep	Terms	Project
TGM	Milestone	

Item	Description	Qty	U/M	Rate	Total
DSATK4DTR06A	KIT 450-470MHZ 6 CH, DB4368	6	ea	17,610.84	105,665.04
547276	COMBINER, MILLED WINDOW FILTER 350-512, 8 CHANNEL MULTICOUPLER, 115 V	6	ea	2,495.00	14,970.00
FCC LicensePS	FCC License Public Safety Pool per duplex channel or single simplex channel per site PRICE INCLUDES WRAP AROUND SERVICE CONTRACT FOR FIRST YEAR ONLY. MAINTENANCE CONTRACT COSTING AFTER 1ST YEAR IS \$53,112.00/YEAR	1		6,500.00	6,500.00

	Total	\$422,257.24
--	-------	--------------



R.F. Design & Integration Inc.
 792 Haunted Ln
 Bensalem, Pa. 19020
 215.245.1700 Office
 215.244.1960 Fax
 rfdesign-int.com

Estimate

Date	Estimate #
12/16/2020	6706

Name / Address
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Ship To
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Rep	Terms	Project
TGM	Net 15	

Item	Description	Qty	U/M	Rate	Total
NX-3300K2-XLKVP	PORTABLES UHF Extra-Cap Li-Ion Value Pack : NX-3300K2+KNB-78L(2860mAh)+KSC-25L SK+KRA-27M	793	ea	854.69997	677,777.08
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-203,333.12
KWD-3501TR	License Key for Digital Trunking (Includes NXDN Type-C and Type-C Gen2)	793	ea	41.70	33,068.10
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-9,920.43
KMC-72W	MIL-SPEC, IP54/55/67 Noise-cancelling Speaker Mic	793		102.00	80,886.00
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-24,265.80
KSC-256K	RAPID RATE 6 UNIT CHARGER FOR KNB-25A/26N/35L/40LC(V)/55L/56N/57L/6 8LC	133	ea	745.00	99,085.00

	Total
--	-------



R.F. Design & Integration Inc.
 792 Haunted Ln
 Bensalem, Pa. 19020
 215.245.1700 Office
 215.244.1960 Fax
 rfdesign-int.com

Estimate

Date	Estimate #
12/16/2020	6706

Name / Address
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Ship To
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Rep	Terms	Project
TGM	Net 15	

Item	Description	Qty	U/M	Rate	Total
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-29,725.50
KNB-78LM	2860 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	793	ea	134.00	106,262.00
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-31,878.60
	MOBILES				
NX-3820HGK-TR	UHF (450 - 520MHz), 45 Watts, 512 CH, 128 Zones with NXDN Trunking and S-Trunking	418	ea	702.00	293,436.00
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-88,030.80
KCT-18	Ignition sense cable (Requires KCT-19 ; OR Requires KCT-60M Acc. Cable Option)	418	ea	20.00	8,360.00
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-2,508.00
KCT-60M	DB15-to15 Pin Molex Adapter Cable	418	ea	30.00	12,540.00

	Total
--	-------



R.F. Design & Integration Inc.
 792 Haunted Ln
 Bensalem, Pa. 19020
 215.245.1700 Office
 215.244.1960 Fax
 rfdesign-int.com

Estimate

Date	Estimate #
12/16/2020	6706

Name / Address
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Ship To
Vineland New Jersey Chief Luigi Tramontana, Jr. 640 E. Wood Street P.O. Box 1508 Vineland, NJ 08362-1508

Rep	Terms	Project
TGM	Net 15	

Item	Description	Qty	U/M	Rate	Total
NJST-KENWOOD	NJ State contract discount for Kenwood products and services Radios & Accessories Freight Prepaid. Radio and Communications Term Contract #T-0109 (RFP 13-x-22183). Kenwood Contract #83927	1	ea	-30.00%	-3,762.00
85825	380-520 2.0/0db antenna	418		67.95	28,403.10
ASWDM	ASW - Dash Mount Install	418		176.00	73,568.00
Programming Commercial	Programming of all Portable/Mobile radios for Commercial Account	1		12,110.00	12,110.00

	Total	\$1,032,071.03
--	-------	----------------