WESTPORT BOARD OF EDUCATION 110 MYRTLE AVENUE WESTPORT, CT 06880 203 341-1002

SPECIFICATION COVER SHEET BID #15-015-BOE INSTALLATION OF TWO WAY RADIO SYSTEM

VENDOR MUST ENCLOSE <u>TWO COPIES</u> OF THIS SPECIFICATION COVER SHEET and <u>TWO COPIES</u> OF THE BID SPECIFICATIONS PRICING SHEETS WHEN RESPONDING TO THIS BID

The Westport Board of Education reserves the right to reject any and all bids, or separate parts thereof, requested herein before. When items are mentioned by a particular brand, substitution of equal quality items will be considered only if the proposed substitution is clearly stated. When a bidder fails to so identify a proposed substitution, it will be assumed that he is bidding on the exact item requested. The Westport Board of Education is exempt from the payment of Federal Excise Taxes and Connecticut Sales and Use Tax according to State Statute. Such taxes must not be included in hid prices nor added to any items specified.

according to State Statute	. Such taxes must	not be included in bid p	rices nor added to any iter	ns specified.
INSTRUCTIONS ON BE	<u>ID DEADLINES A</u>	AND REQUIREMENT	<u>s:</u>	
NAME OF BID:	INSTALLATIO	N OF TWO WAY RA	DIO SYSTEM	
TYPE OF BID:	Sealed Bid	QUOTATIO	N #:	
BID CLOSURE DATE: A MANDATORY WAL STAPLES HIGH SCHO ONLY BE HANDED O	K THROUGH W OOL, 70 NORTH	ILL BE CONDUCTE AVE., WESTPORT, C	D ON DECEMBER 12, T IN THE MAIN OFFI	00 A.M. 2014 AT 3:00 PM BEGINNING AT CE. BID SPECIFICATION WILL
LOCATION TO FORW	ARD BIDS:	Elio Longo, Jr., Direc Westport Board of Ed 110 Myrtle Avenue, F Westport, CT 06880		perations
BID SECURITY:	Bid Security R	tequired5%	Bid Security Not Requ	nired
PREVAILING WAGE:	Required	XXXX	Not	Required
	Name of Bid on E	<u>nvelope</u> :	Specification Sheets STEM – BID #15-015-BO	<u>DE</u>
LENGTH OF TIME PR STATE ESTIMATED D STATE ESTIMATED C	ELIVERY DATE	A (12) 12	Γ BE 120 DAYS	
I have read and understand	d the bidding requi	rement of this bid speci	fication included for my re	eview herein:
Signature of Company Re	presentative		Date	2
TYPED NAME AND TI	TLE:			
COMPANY:				<u></u>
ADDRESS:		TOWN:	STATE:	ZIP:
TELEPHONE NUMBER	R:		FAX NUMBER:	
EMAIL ADDRESS: (Ple	ase print clearly or c	uttach business card):		

WESTPORT BOARD OF EDUCATION Elio Longo, Jr. Office of Director of School Business Operations 110 MYRTLE AVENUE Westport, CT 06880 203 341-1002

INVITATION TO BID BID #15-015-BOE INSTALLATION OF TWO WAY RADIO SYSTEM

Notice is hereby given that sealed bids on the following will be received at the Office of the Director of School Business Operations until:

December 30, 2014 10:00 A.M.

at which time they will be publicly opened and read aloud:

BID #15-015-BOE INSTALLATION OF TWO WAY RADIO SYSTEM

A MANDATORY WALK THROUGH WILL BE CONDUCTED ON DECEMBER 12, 2014 AT 3:00 PM BEGINNING AT STAPLES HIGH SCHOOL, 70 NORTH AVE., WESTPORT, CT IN THE MAIN OFFICE, BID SPECIFICATION WILL BE HANDED OUT AT THE MANDATORY WALK THROUGH

Specifications, if not attached, may be obtained at the office of the:

Elio Longo, Jr. Director of School Business Operations

The Board of Education reserves the right to reject any and all bids, or any part thereof, to waive defects in the same, or to accept any proposal it deems to be in the best interest of the Board of Education and/or the Town of Westport.

Questions regarding this bid should be directed to Ted Hunyadi, Director of Security and Facilities at 203-341-1271.

BID SPECIFICATIONS

INSTALLATION OF TWO WAY RADIO SYSTEM BID #15-015-BOE

Due on or before December 30, 2014, 10:00 A.M. at the office of

Elio Longo, Jr.
Director of School Business Operations
Westport Board of Education
110 MYRTLE AVENUE, Room 300
Westport, CT 06880

Sealed bids will be received by the office of Director of School Business Operations of the Westport Board of Education of the Town of Westport, Connecticut until 10:00 A.M. on December 30, 2014. Each bid should be clearly marked (example) "BID #15-015-BOE – INSTALLATION OF TWO WAY RADIO SYSTEM". Instructions and bid forms may be obtained at the above address. Faxed copies of the bid will not be accepted. Bid specifications will be handed out at the mandatory walk through.

CONDITIONS FOR BIDDING

- 1. The Board of Education reserves the right to reject any bid if it is deemed to be in the best interests of the Town of Westport, Connecticut, Westport Board of Education and its students.
- 2. The Board of Education reserves the right to grant an award in total or for any part thereof for the items or services being bid. In addition, the Board of Education reserves the right to award this bid as a package in conjunction with other bids for similar services/supplies/equipment. The Board reserves the right to award with preference to State of Connecticut contract holders and/or local vendors.
- 3. The submission of a bid shall be conclusive evidence that the bidder has satisfied himself as to the requirements of the bid specifications and any controlling conditions which may exist.
- 4. Bidders may not withdraw their bid for a period of 120 days from the date of bid opening. The Board of Education and the bidder may mutually agree to extend the time limit.
- 5. In determining the ranking of responsible bidders, the Board of Education may consider, in addition to price, the quality, availability and type of items, the experience of the bidder, the sufficiency of the financial resources of the bidder and the reputation of the bidder for ability, integrity, judgment and performance, as well as the ability of the bidder to provide future service/supplies/equipment.
- 6. It is anticipated that the goods will be needed for the current school year, but the Board of Education reserves the right to cancel or alter this service because of enrollment changes, budget consideration or unforeseen circumstances which require a change.
- 7. All bid prices are to include the complete costs, which includes inside delivery to each school or location with installation and assembly of same, if applicable, and training, if applicable. All deliveries must be made prepaid and must be delivered to the location subsequently designated on the purchase orders at no cost over and above the bid price indicated in your bid. Deliveries must be made inside building indicated. In no case will collect shipments or sidewalk deliveries be accepted. A packing slip shall be included in each shipment. All packages must be clearly marked as to content.

- 8. The Board of Education of the Town of Westport supports efforts to reduce the use of illegal drugs in the workplace. In instances where responsible prospective bidders submit identical tie bids, preference shall be given to the businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the Board of Education for the procurement of commodities or contractual services which are bid, a bid received from a business which has certified that it has implemented a drug-free workplace program shall be given preference in the award process. The drug-free workplace program certification is attached and is to be submitted with the bid package by the bidder along with other bid documents in order to receive preference. This policy shall become effective in accordance with the provisions of the Charter of the Town of Westport regarding bidding procedure.
- 9. **ALTERNATIVES:** When proposing an alternate item, indicate the Brand and Model identification on the bid specification sheets. To have alternates considered, complete specifications and submit catalogues describing the product must accompany the bid. The Westport Board of Education reserves the right to request equipment samples on specific items.

10. SUBSTITUTIONS: See Specifications

The Westport Board of Education reserves the right to request equipment samples on specific items.

- 11. **FORM AND STYLE OF BID:** All blanks on the Specification Form, except where otherwise requested, shall be filled in by typewriter or manually in ink and must be completely legible..
- 12. **WARRANTIES:** Whenever an item or service is covered by a specified product or service warranty, such warranties must be submitted with the official bid or quotation specification sheets. All such warranties shall inure to the benefit of the Board.
- 13. **INSURANCE REQUIREMENTS** (if applicable): The successful vendor will be required to purchase from and maintain, for the life of the contract, in a company or companies with an A.M/Best rating of A-(VII) or better, such insurance as will protect the Board of Education from claims set forth below which may arise out of or result from the vendor's obligation under the Contract, whether such obligation is the vendor's or a subcontractor or any person or entity directly or indirectly employed by the successful vendor or anyone for whose acts said vendor may be liable.

14. Workers Compensation (if applicable):

Vendor shall provide workers compensation insurance required by law with employer's liability limits for at least the amounts of liability for bodily injury by accident of \$500,000 each accident and bodily injury by disease of \$500,000.

15. Commercial General Liability Insurance (if applicable):

Vendor shall provide commercial general liability insurance policy with an edition of 1986 or later including products and complete operations. Limits should be at least: Bodily injury and property with an occurrence limit of \$1,000,000; Personal & advertising injury limit of \$1,000,000 per occurrence; General aggregate limit of \$2,000,000 (other than products and completed operations); Products and completed operations aggregate limit of \$2,000,000. Coverage will continue three years after the completion of the work.

• The policy shall name the Westport Public Schools as an additional insured and include ISO Form CG2010 (07/04) and CG 2037 (07/04).

- Such coverage will be provided on an occurrence basis, and will be primary, and shall not contribute in any way to any insurance or self-insured retention carried by the Board of Education.
- The policy shall contain a waiver of liability in favor of the Board of Education.
- Such coverage shall contain a broad form contractual liability endorsement or wording within the policy form to comply with the hold harmless and indemnity provision of the contract.
- A per project aggregate limit of liability endorsement shall apply for any construction contract.
- Deductible and self-insured retentions shall be declared and are subject to approval by the Board of Education.

16. Commercial Automobile Insurance (if applicable):

Vendor shall provide commercial automobile insurance for any owned autos (symbol 1 or equivalent) in the amount of \$1,000,000 each accident covering bodily injury and property damage on a combined single limit basis. Such coverage shall also include hired and non-owned automobile coverage. Policy shall name the Board of Education as an additional insured.

17. Umbrella Liability Insurance (if applicable):

Vendor shall provide an umbrella or excess liability policy in excess (without restriction or limitation) of those limits and coverages described in items (A) through (C). Such policy shall contain limits of liability in the amount of \$5,000,000 each occurrence and \$5,000,000 in the aggregate.

As to the insurance required, the insurer(s) and/or their authorized agents shall provide the Board of Education certificates of insurance prior to execution of the agreement by the Board of Education describing said coverage.

18. QUESTIONS: For questions regarding the bidding procedure, contact Elio Longo, Jr., Director of School Business Operations, at (203) 341-1001. For questions regarding the INSTALLATION OF TWO WAY RADIO SYSTEM, contact Ted Hunyadi at 203-341-1271.

NOTE: By bidding on this contract the vendor agrees that any or all past clients may be contacted by the Westport School System. The vendors bidding on this contract also agree to release and discharge by bidding on this contract for the vendor him/herself, his/her heirs executors administrators and assigns, release acquit and forever discharge the Westport School System, its Board of Education and all employees and any or all other persons, firms and corporations of and from any and all actions, causes of actions, claims or demands for damages, costs, loss of services, expenses, compensation, consequential damage or any other thing whatsoever, on account of, or in any way growing out of any former client contacted by the Westport School System to obtain an opinion regarding any work performed by your company. The above release shall also include and apply to any former client contacted.

DRUG-FREE WORKPLACE CERTIFICATE

I hereby certify that this company:

- 1. Has a published statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and that this statement specifies the actions which will be taken against employees for violations of such prohibition.
- 2. Has a written policy informing employees about the dangers of drug abuse in the workplace, the firm's policy of maintaining a drug free workplace, any available counseling, rehabilitation, and employee assistance programs, and the penalties which may be imposed upon employees for drug abuse violations.
- 3. Each employee engaged in providing the commodities or contractual services which are being bid was given a copy of the statements specified in paragraphs 1 and 2, above.
- 4. In the statement specified in paragraph 1, the employees have been notified that, as a condition of working on the commodities or contractual services which are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of "guilty" or of "nolo contendere" to any violation of any controlled substance law of the United States or of any state, for a violation occurring in the workplace no later that five (5) days after such conviction or plea.
- 5. This firm will impose a sanction on or require the satisfactory participation in a drug abuse assistance program or a rehabilitation program, if such are available in the employee's community, by any employee who is so convicted.
- 6. This firm will make a good faith effort to continue to maintain a drug free workplace.

As the person authorized to sign this statement, I certify that this firm fully complies with the above requirements.

Signature:	Date:	
Print Name:		
Company:		

Revised 1995 DrugFreeWkplaceCert (forms)

Appendix A INSURANCE PROCEDURE Westport Public Schools Westport, CT

PLEASE NOTE:

RETURN THIS COMPLETED FORM WITH YOUR BID (if applicable). FAILURE TO DO SO MAY RESULT IN YOUR BID BEING REJECTED.

Please take the insurance requirements of the BID to your agent/broker immediately upon receipt of the BID documents to determine your existing coverage and any costs for new or additional coverage required for the work noted in BID. Any BID's that contain exceptions to the insurance requirements may be considered non-responsive and may be rejected.

STATEMENT OF VENDOR:

I have read the insurance requirements for this work and have taken the documentation to my insurance agent/broker. BID/RFP cost reflects any additional costs relating to insurance requirements for this work.

If I am awarded this BID, I or my insurance agent shall submit all of the required insurance documentation to Westport Public Schools Business Office within ten (10) days after the date of the award of the BID.

Signature	Date
Print Vendor Name	

SPECIFICATIONS: RADIO SYSTEM DESCRIPTION

System Features

General

The system shall provide reliable, efficient, radio functionality for Westport Board of Education's operational groups and shall accommodate Westport Board of Education's communications requirements between these operational groups. The Radio System shall be provided with the features, functions, and capabilities as described herein.

Required Features and Functions

The proposed Radio System and protocol shall support the following features and functions:

- 1. The system and/or user equipment must support digital transmissions on a 6.25 equivalent, 12.5 kHz TDMA channel. The system and/or user equipment must also support analog transmissions on 12.5 kHz channels.
- 2. The system and/or user equipment must follow ETSI DMR Tier 2 standards based operation.
- 3. The repeater/base station equipment must be able to manage two independent time slots on a single 12.5 kHz frequency using TDMA (Time Division Multiple Access) technology transmissions.
- 4. The system shall use a non-proprietary over the air signaling protocol for communications between the infrastructure and the subscriber radios.
- 5. All user portable radios must incorporate increased digital battery life over analog by operating in a TDMA digital mode.
- 6. All user portable radios must include battery technology for automatic maintenance and reconditioning.
- 7. All radio equipment must support the use of radio subscriber accessories for automatic gain control and noise suppression.

- 8. The system and/or user equipment must include imbedded digital forward error correction technology to increase clarity throughout range.
- 9. The system and/or user equipment must include imbedded software based privacy or scrambling to protect user privacy during communications. This imbedded scrambling must support at least 40-bit protection with multiple keys.
- 10. All user radios must include Emergency Declaration capability with single button activation. The Emergency Declaration shall provide visual and audible status notification to specified radios. The Vendor's Proposal shall include a detailed description of the Emergency Declaration features and programming options.
- 11. The system and/or user equipment must include imbedded GPS receivers in both the portable and mobile radios. Any additional external receivers or accessories shall not be required to receive or send GPS information. GPS shall be supported in a repeater and/or talk around mode.
- 12. The system and/or user equipment must include imbedded text messaging capabilities. Any additional external receivers or accessories shall not be required to receive or send text message information. The user equipment must support unit-to-unit canned and user creatable text messaging capability. The user equipment must support at least 140 scrolling characters. Text messaging shall be supported in a repeater and/or talk around mode.
- 13. The system and/or user equipment must include imbedded telemetry capabilities. Any additional external receivers or accessories shall not be required to receive or send telemetry information. Telemetry shall be supported in a repeater and/or talk around mode.
- 14. The system and/or user equipment must include intelligent channel steering capabilities to revert GPS traffic to alternate channels to control and manage data traffic more efficiently on the system.
- 15. Automatic Vehicle Location (AVL) information shall include vehicle identification, location, speed and time of transmission.
- 16. Voice shall take priority over data transmissions on radios transmitting both voice and data information.

17. The system user shall have the option of applying for licensure to detailed radio interface information. This information shall allow the radio user, if capable, to develop custom applications.

Multi-Site Capabilities:

- The system shall be a multi-site, multi-channel radio network capable of supporting multiple interconnected user groups/fleets. Various entities and work groups must be able to communicate without regard to geographic location.
- 2. The system design should allow connection of any site in the network to any site in the network over IP (Internet Protocol) to achieve the required network connectivity between sites. The network infrastructure should allow the system operator the flexibility of being able to configure the network in a linear, star or mesh type of network configuration. Third party equipment shall not be required for this connection.
- 3. System capability should allow expandability to support additional and/or future sites, radio channels, and users. The network should have the capability of being expanded to at least 15 sites.
- 4. The system design should allow seamless roaming between sites. The system shall provide for automatic radio switching between network sites without any action by the user to provide communications without any message interruption throughout the designated coverage area.

Trunking Capabilities:

- 1. The system shall support the ability to trunk voice or data traffic to available system channels to maximize efficiency. The Trunking system shall automatically detect a P-T-T as a request to talk, and automatically select and assign a voice path for the communications of the selected talk group. Various entities and work groups must be able to communicate without regard to channel selection, radio site selection or geographic location.
- 2. The system Trunking protocol shall not require the use of a dedicated control channel, allowing voice/data to simultaneously trunk on all system channels.

- While in trunked mode, the subscriber access time, defined as PTT to system access, shall not exceed 900 milliseconds when a trunked voice path is available.
- 4. The system must support the ability to simultaneously trunk twelve (12) voice paths.
- 5. The system must support twenty-four (24) additional data revert paths for additional data traffic needs.
- The system shall be capable of supporting data communications that include GPS location services, text messaging, and a data interface for other customer specific and supplied applications including telemetry, system performance management, VoIP dispatch, AVL, work-order management, and email connectivity.
- 7. In the event of a repeater failure, the system shall continue to maintain its trunked operation, regardless of which repeater fails.
- 8. In the event of frequency interference, the system shall continue to maintain its trunked operation, regardless of the channel being interfered with.
- 9. The system shall provide a software application that allows the system administrator the ability to monitor and control the radio repeaters within the system. The Repeater Diagnostics and Reporting system shall provide the following capabilities:
 - Repeater Diagnostics that include enabled-disabled station status, Transmitter power status, available channels and RSSI levels.
 - b. Repeater Controls that include changing channels, transmitter power, station reset and repeater knockdown.
 - c. Repeater Alarm Reporting including Receiver lock failure, transmit lock detect, station overheating, AC Power supply failure and detect and report of failure.
 - d. The application shall operate over the IP network or locally via USB or GPIO connection.

User Equipment

General

All user radios proposed (portables, mobiles, and control stations) shall fully support all features and functions available for user radios in the proposed system. The pricing for user radios shall include all programming and installation services required for operation. At the appropriate time during the implementation process the Vendor will be expected to develop detailed programming personalities and talkgroup configurations with input and assistance from [CUSTOMER NAME]. User radio programming shall not be performed until [CUSTOMER NAME]'s Project Manger has approved the programming personalities and issued a written notice to proceed with radio programming.

All proposed portable, mobile, and control station radios shall conform to the minimum standards specified by TIA/EIA-603, Section 5 "Standards for Portables".

Portable Radios

The proposed portable radio should be rugged, reliable, and provide the following minimum features:

- Emergency button.
- 12.5 kHz analog channel bandwidth.
- 12.5 kHz TDMA (6.25e) digital channel bandwidth.
- Alphanumeric display.
- 32 Channels.
- Digital Signaling PTT ID, Private Call, All Call, Call Alert, Escalating Alerts, Emergency, Radio Check, Radio Disable/Enable and Remote Monitor
- Analog Signaling MDC1200: PTT ID, Emergency and Call Alert

- 16-position channel selector.
- Group scan.
- External microphone and speaker connections.
- Li-ion battery.
- Full line of optional accessories.
- Optional intrinsically safe model.
- 6 Programmable buttons (supporting both long and short press)
- Meets IP57 submersibility with or w/o accessory cover attached

Proposed portable radio units shall conform to applicable Portable Military Standards 810C, 810D, and 810E. The portable transmitters and receivers must further meet or exceed the following specifications.

Portable Transmitter

Frequency Range	403-512 MHz
Frequency Stability	+/- 1.5ppm (Non-GPS)
	+/- 0.5ppm (GPS)
RF Power Output	1 – 4 or 5 watts
Channel Spacing	12.5 kHz Analog / TDMA

60 dB @ 12.5 kHz

Portable Receiver

Audio Distortion

Adjacent Channel Power

Frequency Range	403-512 MHz
Channel Spacing	12.5 kHz Analog / TDMA
Analog Sensitivity (12 dB SINAD)	0.35 uV / .22uV (typical]
Digital Sensitivity	5% BER: 0.3 uV
Adjacent Channel Selectivity	60dB at 12.5 kHz
	@ (TIA603)
	45dB at 12.5 kHz
	@ (TIA603C)
Spurious Rejection	70 dB

3%

Mobile Radios

The proposed mobile radio should be rugged, reliable, and provide the following minimum features:

- Emergency button.
- 12.5 kHz analog channel bandwidth.
- 12.5 kHz TDMA (6.25e) digital channel bandwidth.
- · Alphanumeric display.
- 32 Channels.
- Digital Signaling PTT ID, Private Call, All Call, Call Alert, Escalating Alerts, Emergency, Radio Check, Radio Disable/Enable and Remote Monitor
- Analog Signaling MDC1200: PTT ID, Emergency and Call Alert
- Group scan.
- Full line of optional accessories.
- Optional high power unit (at least 40 watts).
- 4 Programmable buttons (supporting both long and short press)

Mobile and control station transmitters and receivers must further meet or exceed the following specifications.

Mobile/Control Station Transmitter

Adjacent Channel Power

Frequency Range	403 - 470 MHz
Frequency Stability	+/- 1.5ppm (Non-GPS)
	+/- 0.5ppm (GPS)
RF Power Output	40 or 45 watts
	(high power model)
Channel Spacing	12.5 kHz Analog / TDMA

60 dB @ 12.5 kHz

Mobile/Control Station Receiver

Frequency Range 403 - 470 MHz

Channel Spacing 12.5 kHz Analog / TDMA

Analog Sensitivity (12 dB SINAD) 0.30 uV / .22uV (typical]

Digital Sensitivity 5% BER: 0.3 uV

Adjacent Channel Selectivity 65dB at 12.5 kHz

(w / TIA603)

50dB at 12.5 kHz

(w / TIA603C)

Spurious Rejection 75 dB

Audio Distortion 3%

Desktop Control Station Radios

Desktop control station radios will be installed at locations to be determined at a later date. The Proposal should include per unit pricing including standard installation for a recommended control station including the radio, power supply, external speaker, desktop microphone, and antenna. The following minimum features should be supported by the proposed control station radio:

- Emergency button.
- 12.5 kHz analog channel bandwidth.
- 12.5 kHz TDMA (6.25e) digital channel bandwidth.
- Alphanumeric display.
- 1000 Channels.
- Digital Signaling PTT ID, Private Call, All Call, Call Alert, Escalating Alerts, Emergency, Radio Check, Radio Disable/Enable and Remote Monitor
- Analog Signaling MDC1200: PTT ID, Emergency, and Call Alert
- Group scan.
- Full line of optional accessories.

- Optional high power unit (at least 40 watts).
- 4 Programmable buttons (supporting both long and short press

XPR8400 Repeaters

Base Station Transmitter

The base station transmitters shall conform to the minimum standards specified by TIA/EIA-603, Section 4.2, and the Code of Federal Regulations 47, Part 90, Subpart I. The transmitters shall further meet or exceed the following specifications.

Frequency Range	403-470 MHz
Frequency Stability	+ / - 0.5 ppm
RF Power Output	25-40 watts (continuous)
Channel Spacing	12.5 kHz Analog / TDMA
Audio Distortion	3%

Base Station Receiver

The base station receivers shall conform to the minimum standards specified by TIA/EIA-603, Section 4.1. The base station receivers shall further meet or exceed the following specifications.

Frequency Range	403-470 MHz
Analog Sensitivity (12 dB SINAD)	0.30 uV / .22uV (typical]
Digital Sensitivity	5% BER: 0.3 uV
Adjacent Channel Selectivity	65dB at 12.5 kHz
	@ (TIA603)
	50dB at 12.5 kHz
	@ (TIA603C)
Spurious Rejection	75 dB
Audio Distortion	3%

OVERVIEW OF THE IP SITE CONNECT SYSTEM:

A critical piece of an emergency plan is communication. Within a school system there must be communication to emergency response personnel, between the schools and throughout the school grounds. To achieve this communication goal we have proposed a Motorola Mototrbo Digital IP Site Connect System for the Westport Public School System. This solution uses the internet (radio over IP) to extend the school(s) radio coverage resulting in "wide" area communications.

The IP Site Connect System wide area uses the schools existing connectivity network that Westport already has in place. Presently, Westport Public Schools uses "local" radio communications only meaning each school communicates among themselves.

Westport will be adding digital radio equipment into each school which consists of digital repeaters and portable radios. The repeaters will be connecting to the schools with the fiber which will complete the build out of the "wide" area communications network. This network will allow for emergency communications from a single radio carrier to the PD as well as emergency contact from the BOE office.

The IP Site Connect System uses TDMA digital technology which provides the schools with two talk paths to the user 1)local communication at each school and 2)wide area communication which will be used for mass notification. The Westport Public Schools will designate one talkpath as the "Emergency Channel". The other talkpath will be used for "local" daily communication at the individual schools.

Designating an "emergency talkpath" will allow the Police Department and Fire Department's Dispatch Centers to monitor this channel. There will be no communications on this channel except for emergency. By a turn of the channel knob an educator can notify the PD/FD that there is a situation at their school. Digital radio communications is the future and the future is here now. The system proposed has the ability to grow within the district.

The system proposed consists of the following:

A. Digital Repeaters - will be installed as to provide all of the Westport BOE Schools (Staples High School, Bedford Middle, Coleytown Middle, Coletown, Greens Farms, Kings Highway, Long Lots, Saugatuck Schools and Board of Education Office) with appropriate coverage.

- 1. Staples High existing repeater will be reprogrammed for digital. Staples will be using 2 digital repeaters giving them four talk paths (1)emergency, (2)facilities, (3)administration, and (4)nurse/aids.
- 2. A combination of external and internal antenna will be installed to complete the RF requirements of each building. Small schools do not need the power of the outside antennas. These needs will be determined by the walk through.

B. Two Control Stations with emergency encode--Police Department, Fire Department and Board of Education Offices. The Superintendent has the capability of sending out an emergency alarm with voice to follow to all portable radios. The PD and FD Dispatch Center will be listening for emergency communications only.

C. Portable Radios:

1. Each school will have new digital portable radios.

D. Mobile Radios:

1. Five mobile radios will be needed--these radios can be installed into Security/Facility/BOE vehicles. Additional radios maybe needed. These radios give the drivers the capability to use the radio system.

NOTE: a future consideration can be to add the bus radios to the system

Westport Public Schools Responsibilities:

- 1. System requires a connectivity link to each school.
- 2. IP connection at the repeater location.
- 3. Provide IP Address/Subnet for each repeater located at the schools.
- 4. Provide IP Addresses for 109 Portable Radios and Mobile Radios

QUALIFIERS:

MUST BE:

- 1. Have State of CT V9 License
- 2. Minimum five (5) R-2 Certified Technicians
- 3. Motorola Certified Service/Sales Center
- 4. Minimum three (3) R56 Certified Journeyman
- 5. Motorola MCC5500 Trained and Certified Technicians minimum three (3) (FD and PD dispatch)
- 6. Guaranteed response time for repair within 2 hours of a service call
- 7. 24 hr/7 day repair non-business hour response procedure in place
- 8. Provide name of Project Manager that will be assigned to this job
- 9. Minimum of three (3) IP Site Connect Systems Installed please provide references
- 10. Required: 100% Performance and Payment Bond

PRICING SHEET:		The state of the s			
	Installation of Two Way Radio System	ay Radio System			
					Extended
Quanity	Part #	Equipment	Vendor	Unit Price	Price
A) Motorbo Equipment	nent				
-	FCC	Application/Coordination	<u>۲</u>	A processor	
		(8repeater pair and 2 modify coordinations)	y coordinations)		
T	Maps	Coverage Mapping	č		
10	AAM27QPR9JA7BN	XPR8400 UHF40watt	Motorola		
		Repeaters			
10	HFE8401	DS6336A2N UHF Duplexer	Motorola		The state of the s
		450 to 470			
20	112004804	Cables for duplexer to	Motorola		
		pre-selector			
10	0112004U04	Cables for duplexer to	Motorola		
		Repeater			
10	HEF8459	UHF-Preselectors	Motorola		
10	PMLE4476	Wall Mount Kitsw/bracket	Motorola		
B)Battery Back-UP					
	and the state of t				, , , , , , , , , , , , , , , , , , ,
10	L1884	Battery Reverting Charger	Motorola		Marian market ma
		Battery Back-up		and the state of t	
10	CDN-6226	Charge Load Cable	Motorola		The state of the s
10	CDN-6227	Charge Battery Cable	Motorola		
10	TDN-9879	Temperature Sensor	Motorola		
10	824A	Batteries	ċ		
10	THIN6701	30" Cabinet	Motorola		
					The state of the s
				Page 1	Landing to the state of the sta
A. dimension,					
				The state of the s	

C)Motorbo Control S	C)Motorbo Control Stations for Voice Transmit	iit			Extended
Quantity	Part#	Equipment	Vendor	Unit PRICE	Price
3	AAM27QPH9LA1_N	XPR4550 UHF 40-watt ch	Motorola	A STATE OF THE STA	
		with alphanumeric IP			
		Encode/Decode		And the state of t	
2	305637	Power Supply and Cable	ċ		
1	RMN-5050	Desktop Microphones	Motorola		
7	HKN-9557	Antenna Pigtails	Motorola		
And the second s					
D)Antenna Systems					
TO BE DETERMINED AT WALK THROUGH	AT WALK THROUGH	The Advisory			
E)Mototrbo Portable Radios	Radios		je je		
		300			
190	AAH56RDC9KA1_N	XPR7350 UHF portable	Motorola		
		radios no display,impress			
		charger with standard			
		accessories with			
**************************************		emergency encode			
F)Mototrbo Mobile Radios	adios	manis company.			
3	AAM27QPC9LA1 N	XPR4350 UHF 40-watt	Motorola		
		32 channel Mobile Radio			
5	HAE-4003	UHF 1/4 wave antenna	Motorola		
22	TMB-34	Trunk Mount L Brackets	ć		
Allength to					
	And design the second s			and the state of t	
			Page 2		
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G)Dispatch	G)Dispatch Consoles MCC5500 Add-ons	ODS	Extended
			Price
2	L3358	Console Electronic Shelf II Motorola	
2	13550	DAP II for analog, Astro Motorola	
		interface incl.2 licenses	
H)Installati	H)Installation Services		
Man/Hr	TO BE DETERI	TO BE DETERMINED BY EACH CONTRACTOR FILLING THIS OUT	
TOTAL COS	TOTAL COST FOR PROJECT:		
1)Option-Co	ontractor to supply a link	I)Option-Contractor to supply a link capacity plus system in place of a IP Site Connect	
	Provide the software upgrade for each location	grade for each location	
	TOTAL COST		

J)NOTE			
	1)Contractor will be supp	1)Contractor will be supplying the Westport PD and FD with a Control Station which will be	
	added to their MCC5500		
	2)Connectivity to each school location will	chool location will be supplied by Town of Westport	
K)Note			
	1)All bid prices should - a	- a)be complete and include all necessary equipment and supervision,	J,
	<u> </u>	b)be for on-site service, no travel time will be allowed	
	3	c)bid prices will include delivery, F.O.B. destination, without extra compensation	compensation
	2)Full support to be prov	2)Full support to be provided by the vendor and a minimum (3) three year warranty on all parts.	parts.
	3)Bidder must submit at least three (3) curr	least three (3) current references where similar work was performed by the bidder.	led by the bidder.
	4)Contractor is responsible for disposing of	ble for disposing of all obsolete or damaged equipment replaced by them under this contract.	y them under this contract.
	5)All work in the building	5)All work in the building that disturbs paint must be carried out in full compliance with the requirements	e requirements
	of the U.S. Envirinmental	of the U.S. Envirinmental Protection Agency's "Renovation, Repair, and Painting" regulations.	ıs.
	This includes, but is not li	This includes, but is not limited to:a)oversight by a contractor registered with the EPA, b)use of properly trained workers	se of properly trained workers
	and supervisors		And the second s
	c)use of lead-safe work practices, and wher	practices, and where appropriate, d)surface wipe testing at completion.	tion.
	6)Whenever lead paint is disturbed during t	s disturbed during the project, lead-safe work practices, as defined by the U.S.	by the U.S.
	Environmental Protection	Environmental Protection Agency, will be employed.	Page 3