



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
COR61448

PAGE
1

ADDRESS: CORRESPONDENCE TO ATTENTION OF
KRISTA FERRELL 304-558-2596

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

DIVISION OF CORRECTIONS
 MOUNT OLIVE CORRECTIONAL
 CENTER
 ONE MOUNTAINSIDE WAY
 MT. OLIVE, WV
 25185 304-442-7216

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
06/07/2010				

BID OPENING DATE: 06/29/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		988-15		
VTW 400 ELECTRONIC TAUT WIRE FENCE SYSTEM REQUEST FOR QUOTATION (RFQ) THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF CORRECTIONS, IS SOLICITING BIDS TO PROVIDE ALL LABOR AND MATERIALS TO DISPOSE OF THE OLD AND INSTALL AN UPGRADE TO THE EXISTING VTW 400 ELECTRONIC TAUT WIRE FENCE SYSTEM (EFTWFS) AND SENSOR COIL 600 PERIMETER INTRUSION DETECTION SYSTEM (PIDS) AT THE MOUNT OLIVE CORRECTIONAL COMPLEX LOCATED IN MOUNT OLIVE, WV PER THE ATTACHED SPECIFICATIONS. A MANDATORY PRE-BID WILL BE HELD ON JUNE 15, 2010 AT 1:00 PM AT THE MOUNT OLIVE CORRECTIONAL FACILITY LOCATED IN MOUNT OLIVE, WEST VIRGINIA. ALL INTERESTED PARTIES ARE REQUIRED TO ATTEND THIS MEETING. FAILURE TO ATTEND THE MANDATORY PRE-BID SHALL RESULT IN DISQUALIFICATION OF THE BID. NO ONE PERSON MAY REPRESENT MORE THAN ONE BIDDER. AN ATTENDANCE SHEET WILL BE MADE AVAILABLE FOR ALL POTENTIAL BIDDERS TO COMPLETE. THIS WILL SERVE AS THE OFFICIAL DOCUMENT VERIFYING ATTENDANCE AT THE MANDATORY PRE-BID. FAILURE TO PROVIDE YOUR COMPANY AND REPRESENTATIVE NAME ON THE ATTENDANCE SHEET WILL RESULT IN DISQUALIFICATION OF THE BID. THE STATE WILL NOT ACCEPT ANY OTHER DOCUMENTATION TO VERIFY ATTENDANCE.						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
 2. The State may accept or reject in part, or in whole, any bid.
 3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
 4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
 5. Payment may only be made after the delivery and acceptance of goods or services.
 6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
 7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
 8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
 9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
 10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
 11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
 12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
 13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
 14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
 15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
 16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.
- I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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<p>THE BIDDER IS RESPONSIBLE FOR ENSURING THEY HAVE COMPLETED THE INFORMATION REQUIRED ON THE ATTENDANCE SHEET. THE PURCHASING DIVISION AND THE STATE AGENCY WILL NOT ASSUME ANY RESPONSIBILITY FOR A BIDDER-S FAILURE TO COMPLETE THE PRE-BID ATTENDANCE SHEET. IN ADDITION, WE REQUEST THAT ALL POTENTIAL BIDDERS INCLUD THEIR E-MAIL ADDRESS AND FAX NUMBER.</p> <p>ALL POTENTIAL BIDDERS ARE REQUESTED TO ARRIVE PRIOR TO THE STARTING TIME FOR THE PRE-BID. BIDDERS WHO ARRIVE LATE, BUT PRIOR TO THE DISMISSAL OF THE TECHNICAL PORTION OF THE PRE-BID WILL BE PERMITTED TO SIGN IN. BIDDERS WHO ARRIVE AFTER CONCLUSION OF THE TECHNICAL PORTION OF THE PRE-BID, BUT DURING ANY SUBSEQUENT PART OF THE PRE-BID WILL NOT BE PERMITTED TO SIGN THE ATTENDANCE SHEET.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO KRISTA FERRELL IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS RFQ, VIA FAX AT 304-558-4115, OR VIA EMAIL AT KRISTA.S.FERRELL@WV.GOV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS JUNE 18, 2010 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.</p> <p>EXHIBIT 5</p> <p>WEST VIRGINIA CODE 21-1D-5 PROVIDES THAT: ANY SOLICITATION FOR A PUBLIC IMPROVEMENT CONSTRUCTION CONTRACT REQUIRES EACH VENDOR THAT SUBMITS A BID FOR THE WORK TO SUBMIT AT THE SAME TIME AN AFFIDAVIT OF COMPLIANCE WITH THE BID. THE ENCLOSED DRUG-FREE WORKPLACE AFFIDAVIT MUST BE SIGNED AND SUBMITTED WITH THE BID AS EVIDENCE OF THE VENDOR'S COMPLIANCE WITH THE PROVISIONS OF ARTI</p>						

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<p>CLE 1D, CHAPTER 21 OF THE WEST VIRGINIA CODE. FAILURE TO SUBMIT THE SIGNED DRUG-FREE WORKPLACE AFFIDAVIT WITH THE BID SHALL RESULT IN DISQUALIFICATION OF SUCH BID.</p> <p>NOTICE TO PROCEED: THIS CONTRACT IS TO BE PERFORMED WITHIN 150 CALENDAR DAYS AFTER THE NOTICE TO PROCEED IS RECEIVED. UNLESS OTHERWISE SPECIFIED, THE FULLY EXECUTED PURCHASE ORDER WILL BE CONSIDERED NOTICE TO PROCEED.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE MATERIALS OR WORKMANSHIP SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM WITH THE SPECIFICATIONS OF THE BID AND CONTRACT HERE IN.</p> <p>WAGE RATES: THE CONTRACTOR OR SUBCONTRACTOR SHALL PAY THE HIGHER OF THE U.S. DEPARTMENT OF LABOR MINIMUM WAGE RATES AS ESTABLISHED FOR FAYETTE COUNTY, PURSUANT TO WEST VIRGINIA CODE 21-5A, ET, SEQ. (PREVAILING WAGE RATES APPLY TO THIS PROJECT)</p> <p>ARBITRATION: ANY REFERENCES MADE TO ARBITRATION OR INTEREST FOR PAYMENTS DUE (EXCEPT FOR ANY INTEREST REQUIRED BY STATE LAW) CONTAINED IN THIS CONTRACT OR IN ANY AMERICAN INSTITUTE OF ARCHITECTS DOCUMENTS PERTAINING TO THIS CONTRACT ARE HEREBY DELETED.</p> <p>WORKERS' COMPENSATION: VENDOR IS REQUIRED TO PROVIDE A CERTIFICATE FROM WORKERS' COMPENSATION IF SUCCESSFUL.</p> <p>ALL OF THE ITEMS CHECKED BELOW WILL BE A REQUIREMENT OF THIS CONTRACT:</p> <p><input checked="" type="checkbox"/> INSURANCE: SUCCESSFUL VENDOR SHALL FURNISH PROOF</p>						

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<p>OF COMMERCIAL GENERAL LIABILITY INSURANCE PRIOR TO ISSUANCE OF CONTRACT. UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS, THE MINIMUM AMOUNT OF INSURANCE COVERAGE REQUIRED IS \$250,000.</p> <p>() BUILDERS RISK INSURANCE: SUCCESSFUL VENDOR SHALL FURNISH PROOF OF BUILDERS RISK - ALL RISK INSURANCE IN AN AMOUNT EQUAL TO 100% OF THE AMOUNT OF THE CONTRACT.</p> <p>(XX) BONDS: FIVE PERCENT (5%) OF THE TOTAL AMOUNT OF THE BID PAYABLE TO THE STATE OF WEST VIRGINIA, SHALL BE SUBMITTED WITH EACH BID AS A BID BOND. THE SUCCESSFUL BIDDER SHALL ALSO FURNISH A PERFORMANCE BOND AND LABOR/MATERIAL BOND FOR 100% OF THE AMOUNT OF THE CONTRACT. BONDS MAY BE PROVIDED IN THE FORM OF A CERTIFIED CHECK, IRREVOCABLE LETTER OF CREDIT, OR BOND FURNISHED BY A SOLVENT SURETY COMPANY AUTHORIZED TO DO BUSINESS IN THE STATE OF WEST VIRGINIA. A LETTER OF CREDIT SUBMITTED IN LIEU OF A BOND WILL ONLY BE ALLOWED FOR PROJECTS UNDER \$100,000. PERSONAL OR BUSINESS CHECKS ARE NOT ACCEPTABLE IN LIEU OF THE 5% BID BOND, PERFORMANCE BOND, OR LABOR AND MATERIAL BOND.</p> <p>() MAINTENANCE BOND: A TWO (2) YEAR MAINTENANCE BON COVERING THE ROOFING SYSTEM WILL BE A REQUIREMENT OF THE SUCCESSFUL VENDOR.</p> <p>REV. 11/00</p> <p>EXHIBIT 7</p> <p>DOMESTIC ALUMINUM, GLASS & STEEL IN PUBLIC WORKS PROJECTS</p> <p>IN ACCORDANCE WITH WEST VIRGINIA CODE 5-19-1 ET.,</p>						

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<p>SEQ., EVERY CONTRACT FOR CONSTRUCTION, RECONSTRUCTION, ALTERATION, REPAIR, IMPROVEMENT OR MAINTENANCE OF PUBLIC WORKS, WHERE THE COST IS MORE THAN \$50,000 AND, IN THE CASE OF STEEL ONLY, WHERE THE COST OF STEEL IS MORE THAN \$50,000 OR WHERE MORE THAN 10,000 POUNDS OF STEEL ARE REQUIRED, THE STATE WILL ACCEPT ONLY ALUMINUM, GLASS, OR STEEL PRODUCTS PRODUCED IN THE UNITED STATES. IN ADDITION, ITEMS OF MACHINERY OR EQUIPMENT PURCHASED FOR USE AT THE SITE OF PUBLIC WORKS SHALL BE MADE OF DOMESTIC ALUMINUM, GLASS OR STEEL, UNLESS THE COST OF THE PRODUCT IS LESS THAN \$50,000 OR LESS THAN 10,000 POUNDS OF STEEL ARE USED IN PUBLIC WORKS PROJECTS.</p> <p>FOREIGN MADE ALUMINUM, GLASS OR STEEL PRODUCTS MAY BE ACCEPTED ONLY IF THE COST OF DOMESTIC PRODUCTS IS FOUND TO BE UNREASONABLE. SUCH COST IS UNREASONABLE IF IT IS 20% OR MORE HIGHER THAN THE BID PRICE FOR FOREIGN MADE PRODUCTS. IF THE DOMESTIC ALUMINUM, GLASS OR STEEL PRODUCTS TO BE SUPPLIED OR PRODUCED IN A "SUBSTANTIAL LABOR SURPLUS AREA", AS DEFINED BY THE UNITED STATES DEPARTMENT OF LABOR, FOREIGN PRODUCTS MAY BE SUPPLIED ONLY IF DOMESTIC PRODUCTS ARE 30% OR MORE HIGHER IN PRICE THAN THE FOREIGN MADE PRODUCTS.</p> <p>IF, PRIOR TO THE AWARD OF A CONTRACT UNDER THE ABOVE PROVISIONS, THE SPENDING OFFICER OF THE SPENDING UNIT DETERMINES THAT THERE EXISTS A BID FOR LIKE FOREIGN ALUMINUM, GLASS OR STEEL THAT IS REASONABLE AND LOWER THAN THE LOWEST BID DOMESTIC PRODUCTS, THE SPENDING OFFICE MAY REQUEST, IN WRITING, A REEVALUATION AND REDUCTION IN THE LOWEST BID FOR SUCH DOMESTIC PRODUCTS. ALL VENDORS MUST INDICATE IN THEIR BID IF THEY ARE SUPPLYING FOREIGN ALUMINUM, GLASS OR STEEL.</p>						
REV. 3/88						

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<p>EXHIBIT 9</p> <p>NOTICE FOR ISSUANCE & ACKNOWLEDGEMENT OF CONSTRUCTION PROJECT ADDENDA</p> <p>THE ARCHITECT/ENGINEER AND/OR AGENCY SHALL BE REQUIRED TO ABIDE BY THE FOLLOWING SCHEDULE IN ISSUING CONSTRUCTION PROJECT ADDENDA FOR STATE AGENCIES:</p> <p>(1) THE ARCHITECT/ENGINEER SHALL PREPARE THE ADDENDUM AND A LIST OF ALL PARTIES THAT HAVE PROCURED DRAWINGS AND SPECIFICATIONS FOR THE PROJECT. THE ADDENDUM AND LIST SHALL BE FORWARDED TO THE BUYER IN THE STATE PURCHASING DIVISION. THE ARCHITECT/ENGINEER SHALL ALSO SEND A COPY OF THE ADDENDUM TO THE STATE AGENCY FOR WHICH THE CONTRACT IS ISSUED.</p> <p>(2) THE BUYER SHALL SEND THE ADDENDUM TO ALL INTERESTED PARTIES AND, IF NECESSARY, EXTEND THE BID OPENING DATE. ANY ADDENDUM SHOULD BE RECEIVED BY THE BUYER WITHIN FOURTEEN (14) DAYS PRIOR TO THE BID OPENING DATE.</p> <p>(3) ALL ADDENDA SHOULD BE FORMALLY ACKNOWLEDGED BY ALL BIDDERS AND SUBMITTED TO THE STATE PURCHASING DIVISION. THE SAME RULES AND REGULATIONS THAT APPLY TO THE ORIGINAL BIDDING DOCUMENT SHALL ALSO APPLY TO AN ADDENDUM DOCUMENT. THE ONLY EXCEPTION MAY BE FOR AN ADDENDUM THAT IS ISSUED FOR THE SOLE PURPOSE OF CHANGING A BID OPENING TIME AND/OR DATE.</p>						
REV. 11/96						

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EXHIBIT 10						
ADDENDUM ACKNOWLEDGEMENT						
I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.						
ADDENDUM NOS. :						
NO. 1						
NO. 2						
NO. 3						
NO. 4						
NO. 5						
I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF THE BIDS.						
VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.						
						SIGNATURE
						COMPANY
						DATE

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				CONTRACTORS LICENSE		
				WEST VIRGINIA STATE CODE 21-11-2 REQUIRES THAT ALL PERSONS DESIRING TO PERFORM CONTRACTING WORK IN THIS STATE MUST BE LICENSED. THE WEST VIRGINIA CONTRACTORS LICENSING BOARD IS EMPOWERED TO ISSUE THE CONTRACTORS LICENSE. APPLICATIONS FOR A CONTRACTORS LICENSE MAY BE MADE BY CONTACTING THE WEST VIRGINIA DIVISION OF LABOR CAPITOL COMPLEX, BUILDING 3, ROOM 319, CHARLESTON, WV 25305. TELEPHONE: (304) 558-7890.		
				WEST VIRGINIA STATE CODE 21-11-11 REQUIRES ANY PROSPECTIVE BIDDER TO INCLUDE THE CONTRACTORS LICENSE NUMBER ON THEIR BID.		
				BIDDER TO COMPLETE:		
				CONTRACTORS NAME:		
				CONTRACTORS LICENSE NO.:		
				THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH A COPY OF THEIR CONTRACTORS LICENSE PRIOR TO ISSUANCE OF A PURCHASE ORDER/CONTRACT		
				APPLICABLE LAW		
				THE WEST VIRGINIA STATE CODE, PURCHASING DIVISION RULES AND REGULATIONS, AND THE INFORMATION PROVIDED IN THE "REQUEST FOR QUOTATION" ISSUED BY THE PURCHASING DIVISION IS THE SOLE AUTHORITY GOVERNING THIS PROCUREMENT.		

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<p>ANY INFORMATION PROVIDED IN SPECIFICATION MANUALS, OR ANY OTHER SOURCE, VERBAL OR WRITTEN, WHICH CONTRADICTS OR ALTERS THE INFORMATION PROVIDED FROM THE SOURCES AS DESCRIBED IN THE ABOVE PARAGRAPH IS VOID AND OF NO EFFECT.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>REV. 5/2009</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: KRISTA FERRELL-FILE 21</p> <p>REQ. NO.: COR61448</p> <p>BID OPENING DATE: 06/29/2010</p>						

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Request for Quotation

RFQ NUMBER
 COR61448

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 10

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 KRISTA FERRELL
 304-558-2596

VENDOR

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 MT. OLIVE, WV
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**UPGRADE THE EXISTING VTW ELECTRONIC TAUT WIRE FENCE
SYSTEM (ETWFS) OR EQUAL AT THE MOUNT OLIVE CORRECTION
COMPLEX**

Table of Contents

	Page
Description	2
Part I – General	3
Part II – Products	12
Part III – Execution	24

UPGRADE THE EXISTING VTW ELECTRONIC TAUT WIRE FENCE SYSTEM (ETWFS) OR EQUAL AT THE MOUNT OLIVE CORRECTION COMPLEX

Description – The Mount Olive Correctional Complex has an existing VTW Electronic Taut Wire System that has aged and needs upgraded or replaced with an equal system. The Electronic Taut Wire Fence System consists of electronic sensors around the perimeter of the Complex except on top of a portion of the main building. The proposal should also include the sensor coil perimeter intrusion detection system (PIDS) roof line security above the portion of the main building that does not have the system. If anyone inside the perimeter of the Facility puts weight on the taut wire, there will be a signal sent back to the control room and the location will display.

UPGRADE THE EXISTING VTW ELECTRONIC TAUT WIRE FENCE SYSTEM (ETWFS) OR EQUAL AT THE MOUNT OLIVE CORRECTION COMPLEX

PART I - GENERAL

1.00 SUMMARY

- A. The existing Perimeter Intrusion Detection System (PIDS) includes a VTW 400 Electronic Taut Wire Fence System (ETWFS) along the perimeter, microwave sensors at the sally ports and man gate and a Perimeter Security Control System (PSCS)
- B. Upgrade the existing VTW 400 Electronic Taut Wire Fence System (ETWFS).
- C. Add microwave sensors to the existing microwave sensor links to achieve stacked microwave arrays at the sally ports and man gate.
- D. Provide and install a Sensor Coil Perimeter Intrusion Detection System (PIDS) on the roof of the entrance building.
- E. Furnish and install a new Perimeter Security Control System (PSCS) that is compatible with the existing VTW ETWFS.
- F. The existing / new PIDS shall be rendered fully operational at the end of each day of work.
- G. Test and train.

1.01 RELATED SECTIONS AND DRAWINGS

- A. Project drawings.

1.02 REFERENCES AND STANDARDS

- A. National Electric Code (NEC), latest edition.
- B. Federal Communications Commission (FCC).
- C. Underwriters Laboratories (UL).
- D. American Welding Society (AWS).
- E. National Electrical Manufacturers Association (NEMA).

- F. Local and state building codes.
- G. Mil-STD 810C.
- H. ASTM A121-81.
- I. ASTM A120-80.
- J. ASTM A153.
- K. ASTM C94.

1.03 EXISTING SYSTEM DESCRIPTION

- A. The existing VTW ETWFS operates as a physical barrier to escape attempts and as a zoned, automatic, supervised, detection and alarm system annunciated at the existing PSCS to alert security personnel of an attempted breach of the perimeter security.
- B. The existing VTW ETWFS is installed on the existing inner perimeter fence and the walls that are part of the perimeter.
- C. The existing fence mounted VTW ETWFS consists of an 8 foot vertical section with 25 sensors and a 40" outrigger with 7 sensors accommodating a total of 32 taut wires. The existing wall mounted VTW ETWFS consists of a 40" outrigger with 7 sensors accommodating 7 taut wires.
- D. Single microwave sensor links are installed at the sally ports and man gates (entrance into area between inner and outer layer of fencing around the perimeter) and provide a continues detection loop with the VTW ETWFS installed on the adjacent fences.
- E. The VTW ETWFS detects all attempts to climb over it or to cut through it and the microwave sensors detect all attempts to go through the microwave field.

1.04 THE UPGRADED PIDS - DESCRIPTION

- A. The upgraded PIDS will be zoned as shown on the project drawings.
- B. The Upgraded VTW ETWFS.
 1. The upgraded VTW ETWFS shall match the existing configuration. An alarm shall occur when a taut wire is deflected 3.5 inches or more approximately 15-feet from the associated anchor post.
 2. The upgraded VTW ETWFS shall detect the following:
 - a. Climbing on the taut wires.

- b. Cutting the taut wires.
 - c. Spreading the taut wires.
 - d. Tampering with the VTW ETWFS processor / transponder enclosure.
 - e. Attempting to bridge the taut wires using the sensor post as a point upon which to lean an object such as a ladder.
 - f. Attempting to remove the sensor post.
 - g. Attempting to cut the power or communications of the VTW ETWFS processor / transponder.
3. The upgraded VTW ETWFS shall be able to initiate three (3) alarm conditions; ALARM, TROUBLE, and TAMPER:
- a. When force is applied to the taut wires, they produce an equivalent horizontal movement in the direction away from the sensor post. Sufficient movement of the taut wire shall cause the sensor, an electromechanical transducer/ resistance strain gauge, to convert this physical motion into an electrical signal which is analyzed by the taut wire sensor processor. The VTW ETWFS processor shall determine if the movement is within the preprogrammed parameters, and if the movement is outside these parameters the processor shall activate an alarm.
 - b. A deflection movement of adjustable magnitude shall cause the VTW ETWFS sensor processor to activate the alarm. Each VTW ETWFS sensor shall be individually electronically adjustable to detect more or less horizontal movement.
 - c. The VTW ETWFS shall provide distinctive (separate) alarms for detections to the left and right of the detecting taut wire sensor.
 - d. A deflection force of 55 lb (25 kg) or more applied on a single taut wire shall activate an alarm.
 - e. The simultaneous cutting of a wire on either side of the sensor post or the loosening of the nut clamping the wire onto the VTW ETWFS sensor shall first cause the VTW ETWFS sensor processor to activate the Alarm signal and then the Trouble signal, signaling not only an alarm to security personnel but also alerting them that this particular section of fence has a cut, broken, or unattached taut wire.
 - f. The Alarm signal shall automatically be reset by the VTW ETWFS sensor processor and the Trouble signal shall remain activated until the cut, broken, or unattached wire is repaired and the processor no longer detects a Trouble condition.
 - g. Subsequent attempts to climb cut, or spread the taut wires even after a Trouble condition is detected and annunciated, shall cause the VTW ETWFS sensor processor to activate the Alarm signal.
 - h. Any attempt to remove the cover off or open the cover of the junction box, or the placement of a lateral force against the sensor such as a ladder, or the disturbance (opening, shorting or closing) of any of the VTW ETWFS sensor electrical wires shall result in the processor activating a Tamper or Trouble alarm.

4. Each VTW ETWFS sensor shall be assigned an individual input on the VTW ETWFS processor and shall be individually supervised by the VTW ETWFS processor.
5. Each VTW ETWFS sensor shall accommodate one (1) taut wire only.
6. Failure of one (1) VTW ETWFS sensor will result in only one (1) taut wire loosing detection capabilities. The associated zone / sector will continue to operate and detect even though one (1) VTW ETWFS sensor is not in operation.
7. All VTW ETWFS sensors will be electronically connected with plug in type connectors.
8. VTW ETWFS alarms (left and right), trouble and tamper conditions are annunciated at the PSCS by audible zone and visual indicators.
9. The VTW ETWFS shall have the ability to electronically adjust the center of the alarm window with software to accommodate gradual changes in the VTW ETWFS sensors position caused by the environment and natural settling of the system. The electronic adjustment shall be facilitated from the PSCS and via a laptop in the field.
10. The VTW ETWFS processor shall have dry contacts for Alarm, Trouble and Tamper conditions and shall also have a built in transponder for seamless digital communication with the PSCS.

C. Upgraded Microwave Sensor Links

1. The upgraded microwave sensor links shall consist of 2 stacked microwave sensors and shall operate as a zoned, automatic, supervised, detection sensor system connected to the PSCS that will alert security personnel of an attempted breach of the associated perimeter.
2. Crawling, running or walking through the area protected by the stacked microwave sensor links shall cause an alarm condition.
3. The stacked microwave sensors shall be installed in a stacked configuration of one above the other, creating a minimum detection field of 7.5 feet in height.
4. The stacked microwave sensor links shall detect the following:
 - a. Crawling through the stacked microwave sensors.
 - b. Running through the stacked microwave sensors.
 - c. Walking through the stacked microwave sensors.

- d. Disconnecting the microwave sensor from the transponder.
 - e. Tampering with the stacked microwave sensor connection enclosure.
 - f. Attempting to remove a microwave sensor from the mounting post.
 - g. Attempting to cut the power to the stacked microwave sensors.
5. The microwave sensor shall be able to initiate two (2) alarm conditions; ALARM and TAMPER:
- a. The microwave sensor shall operate on the principle of microwave disturbance in which the microwave between the TX and RX head is disturbed by someone entering into it. Disturbances of a certain magnitude with certain characteristics should create an alarm.
 - b. Any attempt to gain access to the microwave sensor circuits shall result in a Tamper alarm.

D. New Sensor Coil PIDS

1. The Sensor Coil PIDS shall operate as a physical barrier and as a zoned, automatic, supervised, detection sensor system connected to the PSCS that will alert security personnel of an attempted breach of the associated perimeter.
2. The Sensor Coil PIDS will be installed along all applicable roof lines and wall applications to provide continuous detection loop and a physical barrier with the VTW ETWFS installed on the adjacent fence and wall.
3. Climbing over or cutting through the Sensor Coil PIDS shall cause an alarm condition.
4. The Sensor Coil PIDS shall be installed in a single row configuration. Where applicable adjacent barbed tape coils shall be mechanically tied to the Sensor Coil PIDS.
5. The Sensor Coil PIDS shall detect the following:
 - a. Climbing over it.
 - b. Cutting through it.
 - c. Cutting or climbing over adjacent connected barb tape coils.
 - d. Disconnecting the Sensor Coil from the analyzer.
 - e. Tampering with the analyzer enclosure.
 - f. Tampering with splice boxes and end of line boxes.
 - g. Attempting to remove the Sensor Coil PIDS from the mounting brackets and hardware.
 - h. Attempting to cut the power to the analyzer.
6. ~~The Sensor Coil PIDS analyzer shall be able to initiate two (2) alarm conditions; ALARM and TAMPER:~~
 - a. The Sensor Coil PIDS is constructed of 2 coils attached to each other

by stations. The inner coil incorporates the micro phonic sensor cable within and the principle of operation is the same. Movement of the Sensor Coil as a result of forces applied to it or to the medium on which it is installed that creates electromagnetic induction that is outside of the pre set parameter shall activate an Alarm relay.

- b. The Sensor Coil PIDS shall be supervised by the analyzer. Any attempt to disconnect the inner micro phonic sensor cable from the analyzer or to open any of the splice or end of line boxes shall result in a Tamper alarm.

- E. Failure of the A.C. operating power shall automatically transfer the VTW ETWFS, the stacked microwave sensors, the Sensor Coil PIDS and the PSCS to the existing UPS. The entire PIDS including the VTW ETWFS, the stacked microwave sensor links, the Sensor Coil PIDS and PSCS shall operate on power from the existing UPS during main power down periods.

- F. All wiring between the VTW ETWFS, the stacked microwave sensor links, Sensor Coil PIDS, the processors / transponders, the zone analyzers and the PSCS shall be supervised for opens, grounds and shorts.

- G. Communication between the VTW ETWFS transponders and the PSCS shall be digital. The VTW ETWFS transponders shall also facilitate the communication from the microwave sensor links and the Sensor Coil PIDS.

- H. Tampering with the VTW ETWFS, the stacked microwave sensors, the Sensor Coil PIDS, end of line units, processors, transponders, analyzers, splice boxes, feeder boxes, junction boxes, and cables shall cause a "tamper alarm" condition at the PSCS.

- I. Climbing or cutting the VTW ETWFS, or penetrating the microwave sensor links climbing or cutting the Sensor Coil PIDS shall cause a "detection alarm" to be annunciated at the PSCS.

- J. In the event that several systems set off an alarm during an escape attempt they shall be annunciated in the same order that they were initiated.

1.05 QUALITY ASSURANCE

- A. Installers Qualifications: The persons performing the work of this section and their supervisor shall be personally experienced in the installation of the VTW ETWFS and shall have been fully engaged in the past in at least 3 VTW ETWFS installations of at least 3000 ft each in the USA during the last 3 years. Installers of the microwave sensors and the Sensor Coil PIDS should be certified by the respective manufactures as qualified installers.

- B. List of Completed Installations at operational facilities. – Sensor Coil PIDS: If manufacturers and systems other than those specified are proposed for use, furnish the name, address and telephone number of at least 3 comparable installations, each at least 3000 feet long at correctional facilities in the USA where the systems are being utilized. The system at each facility should be in operation for at least 3 years. The information provided will be used to verify that the proposed products have operated satisfactorily for 3 years at each location. Test beds will not be accepted as operational sites. At least one of these sites should have environmental conditions similar to those in Mount Olive, WV.
- C. If brand names and / or manufacturers other than those specified for the Sensor Coil PIDS are proposed, submit documentation that the system was tested and passed all testing requirements by a U.S. Government testing agency such as Sandia National Laboratories, U.S. Air Force, State / City DOC or other U.S. / state government testing facility.
- D. If brand names or manufacturers other than those specified are proposed, submit the following information pertaining to the proposed system at least 1 week before the bid date to the WV DOC point of contact:
1. Substitution request.
 2. Information required in section 1.05, B & C.
 3. Catalogue sheet.
 4. Manual.
- E. Company Field Advisor: Secure the services of Company Field Advisor to perform the following:
1. Assist in the formation of the submittals package, and review the submittal package for accuracy and completeness.
 2. Render advice regarding installation and integration with other systems.
 3. Provide supervision of the installation at the contract site for a minimum of 40 hours and for the following:
 - a. Inspect the installation of the PIDS, to assure that the installation of the VTW ETWFS, microwave sensor links, Sensor Coil PIDS and the PSCS is in accordance with the respective manufacturer's installation requirements and in accordance with the contract documents.
 - b. Render advice regarding installation and final adjustment of the VTW ETWFS, microwave sensor links and Sensor Coil PIDS.
 - c. Assist in initial programming, adjustments and settings of the VTW ETWFS, microwave sensors, Sensor Coil PIDS and PSCS.
 - d. Perform the preliminary tests on the VTW ETWFS, microwave sensor links and Sensor Coil PIDS.
 - e. ~~Witness final the VTW ETWFS, microwave sensor links, Sensor Coil PIDS and PSCS test and then certify with an affidavit that the systems~~ are installed in accordance with the contract documents and is operating properly.

- f. Train facility personnel on the operation of the system (minimum of 3 two hour sessions).
 - g. Train facility personnel on maintenance of the system (minimum of four hour sessions).
 - h. Explain available service programs to facility supervisory personnel.
- F. Service Availability: A fully equipped service organization capable of guaranteeing response time within 24 hours to service calls shall be available 24 hours a day, 7 days a week to service the completed system.

1.06 DESIGN REQUIREMENTS

- A. The VTW ETWFS and Sensor Coil PIDS shall be designed by the engineering staff of the manufacturer of the systems proposed to be installed.
- B. The VTW ETWFS, microwave sensors, Sensor Coil PIDS and PSCS (configuration, length of sectors / zones etc.) shall be as the same as the existing or as shown on the drawings.

1.07 SUBMITTALS

- A. Submittals Package: Submit the shop drawings, product data, samples, and quality control submittals specified at the same time as a package.
- B. Shop Drawings: Drawings shall show specific application to this project and shall have all of the details required to install all components.
- C. Detailed scale drawings of the complete as proposed VTW ETWFS, microwave sensor links, Sensor Coil PIDS and PSCS to be installed including the following:
 1. Fence mounting details.
 2. VTW ETWFS, microwave sensor links and Sensor Coil PIDS layout details.
 3. Schematic and point to point wiring diagrams between all of the components and systems.
 4. Details of the interconnection between the VTW ETWFS, the microwave sensor links, the Sensor Coil PIDS and the PSCS.
 5. Field site plans per zone showing location of all anchor posts, sensor posts, slider posts, floating sliders, end of lines, splice boxes, junction boxes, Sensor Coil PIDS modules, microwave sensors and all other components.
 6. Control room / equipment room equipment layout including all rack units, power supplies, PSCS components and all interconnecting wiring and cables.
 7. Power distribution drawing.

D. Product Data:

1. Catalog sheets, specifications and installation instructions.
2. Bill of materials.
3. Detailed description of system operation.
4. Total electrical load of the complete system in supervisory and alarm conditions.
5. Name, address and telephone number of nearest fully equipped service organization.

E. Samples: One 3 foot long piece of barbed taut wire and one 3 foot long piece of barbed sensor tape used as the inner coil of the Sensor Coil.

F. Quality Control Submittals:

1. Company Field Advisor Data - Include:
 - a. Name, business address and telephone number of Company Field Advisor secured for the required services.
 - b. Certified statement from the Company listing the qualifications of the Company Field Advisor.
 - c. List services and each product specifically for which authorization is given by the associated Company to the Company Field Advisor for this project.
 - d. The Company Field Advisor must be an employee of the manufacturer of the VTW ETWFS.
2. Letter from the Company Field Advisor, stating that the Company Field Advisor has reviewed the Submittals Package for accuracy and completeness and approves all materials and installation methods included in the Submittals Package.

G. Contract Close Out Submittals – Include:

1. Test Report: System acceptance test report.
2. Certificate: Affidavit, signed by the Company Field Advisor and notarized, certifying that the system meets the contract requirements and is operating properly.
3. Operation and Maintenance Data.
4. Deliver 2 copies, covering the installed products, to each site. Include:
 - a. Operation and maintenance data for each product.
 - b. Complete point-to-point wiring diagrams of entire VTW ETWFS, microwave sensor links, Sensor Coil PIDS and PSCS as installed. Number all conductors and show all terminations and splices. (Numbers shall correspond to numbered tags installed on each conductor.)
 - c. Video of the training sessions (operation and maintenance), specific to each site.
 - d. Name, address and telephone number of nearest fully equipped service organization.

1.08 PROJECT CONDITIONS

- A. The VTW ETWFS, microwave sensors and Sensor Coil PIDS shall meet all of the following site conditions:
1. Relative humidity: 15% - 100%.
 2. Maximum ambient temperature: 110 degrees F.
 3. Minimum ambient temperature: - 30 degrees F.

1.09 WARRANTY

- A. The warranty shall include and cover the following:
1. All products provided as part of this section shall be warranted for a period of two years after system acceptance except for the VTW ETWFS sensors that shall be warranted for 3 years.
 2. All workmanship provided under this contract shall be warranted for one year after system acceptance.
 3. Provide product warranty with the submittals.
 4. Provide workmanship (system performance) warranty with project close out submittals.

PART II - PRODUCTS

2.00 VTW ETWFS

- A. Acceptable manufacturers and system:
1. The VTW 400 Electronic Taut Wire Fence System (ETWFS) or equal.
 2. The new VTW ETWFS equipment shall be fully compatible with the existing VTW ETWFS. The entire VTW ETWFS (existing sectors / zones and new zones) shall be operational at the end of each working day).

2.01 VTW ETWFS SENSOR

- A. The STW - 40 taut wire sensor shall:
1. Contain four strain gauges in a Whetstone bridge within an environmentally sealed stainless steel and elastomeric housing.
 2. Be 100% water resistant and have total electrical isolation.
 3. Have an adjustable operating threshold.
 4. Accommodate one taut wire that is affixed to the threaded stud of the sensor that has a dedicated groove for the taut wire by means of a nut and washer.
 5. Have a connector to facilitate its connection to the taut wire sensor processor by means of a ribbon cable.

2.02 FP 450 ETWFS PROCESSOR / TRANSPONDER

- A. All existing processors shall be replaced with the FP 450 ETWFS processor.
- B. The FP 450 ETWFS processor shall:
 - 1. Continuously scan each sensor taking measured voltage and converting it from analog to digital to binary.
 - 2. Contain a microprocessor, data acquisition circuitry and alarm output relays for Alarm, Trouble and Tamper.
 - 3. Be located in an environmentally sealed junction box adjacent to the VTW ETWFS sensor post.
 - 4. Be equipped with a RS-485/RS-232 P.C. data port for sensitivity adjustment and data review.
 - 5. Have a built in transponder for seamless digital communication with the PSCS.
 - 6. Have power requirement of less than 2 watts.
- C. The FP 450 ETWFS processor shall accomplish the following automatically:
 - 1. Monitor the taut wire sensors' status changes which exceed programmed limits.
 - 2. Annunciate the taut wire sensors' status changes which exceed programmed limits.
 - 3. Recalibrate to accommodate taut wire sensor movements attributable to environmental causes.
 - 4. Supervise taut wire sensor data and all tamper switches.
 - 5. Identify alarms to either side (right and left) of the taut wire sensor.
 - 6. Communicate via the built in transponder with the PSCS.
 - 7. Store the individual alarm thresholds of each ETWFS sensor separately in a software table.
- D. The FP 450 ETWFS processor shall have the capability interface to a portable laptop computer in the field or via the built in transponder to the PSCS to facilitate electronic taut wire sensor sensitivity adjustments and thresholds.

2.03 SENSOR POST

- A. All existing VTW ETWFS sensor posts should be replaced with new VTW ETWFS sensor posts.
- B. The sensor post shall be a stainless steel "C" channel containing the taut wire sensors.
- C. The sensor post shall accommodate the ribbon electrical wires connecting the STW 40 sensors to the FP 450 ETWFS processor.
- D. The sensor post shall enable the positioning of the STW 40 ETWFS sensors at any point to meet the performance requirements of the ETWFS.

- E. Provide all attachment accessories.

2.04 ANCHOR POST

- A. All existing anchor posts shall remain.

2.05 SLIDER POST

- A. All existing slider posts shall remain.
- B. Provide new accessories and locking devices to lock the rod within the coil as required.

2.06 INTERMEDIATE SLIDER POST

- A. All existing intermediate slider posts to remain.
- B. Provide new accessories and locking devices to lock the rod within the coil as required.

2.07 TENSIONER

- A. Replace all existing tensioners.
- B. The tensioner shall be a galvanized steel ratchet wheel type with ten teeth for optimal tension adjustments.

2.08 MOVEMENT TRANSFER WIRES (TAUT WIRES)

- A. Replace all of the taut wires.
- B. The new taut wires shall be high tensile, low carbon double-stranded galvanized steel wires with:
 1. Reverse twisted approximately every 3.94 in. (10 cm).
 2. 15.5 AWG wire.
 3. Barbed (4 point) approximately every 4.92 in. (125mm).
 4. Barb diameter minimum 13.5 AWG.
 5. Minimum breaking strength – 948 lb or (430 kg).
 6. Weight – 11.35 lb (5.15 kg) per 328.1 ft (100 m) length.
 7. Class 3 galvanized – coated with a mixture of zinc and aluminum.
 8. Bezial by Bekaert or equal.

~~2.09 MICROWAVE SENSORS~~

- A. Acceptable manufacturers and system:

1. Model 24000 manufactured by Magal Senstar or equal.
2. The new microwave sensors should be from the same manufacturer as the existing microwave sensors and completely compatible.

B. Requirements:

1. FCC approved.
2. Frequency – 24.125+/- .050 GHz K band.
3. Adjustable range: 10 – 656 feet.
4. Microwave band pass – Greater than 60dB adjacent subcarrier rejection.
5. Modulation – Class A2 – 6 field selectable sub carriers.
6. Operating environment - -40° F to +150° F.
7. DC input – 11 VDC to 15 VDC.
8. 150 mA (TX & RX).
9. Alarm output – Sealed DPDT – 2 each NC /NO contacts, 28 VDC maximum.
10. Provide with all mounting accessories.

- C. Microwave sensors should be compatible with the existing Stellar 16000 microwave sensors.

2.10 SENSOR COIL PIDS

A. Acceptable manufacturers and system:

1. Sensor Coil PIDS 600 by DeTekion Security Systems, Inc.
2. Equal – Submit per section 1.05, B, C & D. Sensors within or without flexible or other conduits or other sensors attached to a barbed tape will not be accepted.
3. Equivalent manufacturers other than those listed must be approved during the bidding period only. Manufacturers who wish to have their Sensor Coil PIDS considered for use on this project will require approval of the WV DOC to do so. Proof of qualifications should be submitted per section 1.05, B, C and D no later than 1 calendar weeks before the bid date. Additional approved manufacturers deemed to be qualified will be included by written addendum.

2.11 SENSOR COIL MODULE

A. DeTekion Security Systems, Inc.'s ST30 stainless steel double coil assembly or equal having:

1. Outside Coil: 30 inches outside diameter (plus or minus 2 inches) with 101 coil loops of a single helical coil of spring quality austenitic stainless steel with 24 (plus or minus 1) barb clusters per revolution.
- ~~2. Inner Coil: Constructed of austenitic stainless steel barbed tape, 19 inches in diameter (plus or minus 2 inches) incorporating within its structure an active micro phonic sensor and permanently attached to the outer coil with~~

- stanchions every 20 inches.
3. Module lengths of 25 and 50 ft.
 4. Defensor 100 micro phonic Sensor Cable (minimum 2.5 linear ft per 1 linear ft of barbed tape).
 5. Operating temperature: -40° F to +150° F.
 6. Electromagnetic capability: Comply with BSEN 50081 and EN 50082-1
 7. Detection Coverage: The Sensor Coil PIDS shall have minimum detection coverage of up to 1 adjacent 30 inch barbed tape runs on each side of it when mechanically connected to them. The Sensor Coil PIDS shall have minimum detection coverage of 4 feet above it and 4 feet below it on the fence on which it is mounted when the field settings are optimized.

2.12 MICROPHONIC SENSOR CABLE

- A. The Defensor 100 micro phonic sensor cable shall be utilized within the inner coil of the Sensor Coil PIDS.
- B. The Defensor 100 micro phonic sensor cable should have the following construction and features and meet the following standards:
 1. Cable Manufacture: The sensor cable shall be available in continuous lengths of 1640 feet (500 meters) and shall be capable of being cut and terminated at site. The cable outer sheath shall be of the polyethylene group of sheathing grade polymers and must be resistant to environmental degradation with an anticipated life of not less than fifteen years.
 2. Cable Assembly: The sensor cable shall consist of 2 sensor wires within lubricated HDPE tubes located within grooves in a flexible magnetic core. A strainer wire is located within the center of the flexible magnetic core. The flexible magnetic core is assembled from 2 equal pieces. The sensor wires, magnetic core and strainer wire are assembled within a Mylar tape. The entire sensor assembly is encased in a UV resistant polyethylene jacket.
 3. Cable Characteristics: The design of the sensor cable shall be such that to achieve a signal to noise ratio greater than 50dB. The source impedance of the signals produced by the sensor itself shall not exceed 16 ohms for every 328 feet (100 meters) of sensor cable. The configuration of the moving conductors within the sensor cable will be that of a twisted pair. The sensor cable shall have uniform sensitivity along its entire length.
 4. The Defensor sensor cable shall have a minimum detection coverage on the fence on which it is mounted of 4 feet above it and 4 feet below it when the field settings are optimized.

2.13 OUT DOOR ZONE ANALYZER

- A. ~~The zone analyzer should have the following features and meet the following standards:~~
 1. Suitable for rack mount or outdoor application (in junction box).

2. Power Requirement: 10-24 VDC, 60 mA at 12 V.
3. Outdoor operating temperature: -40° F to +150° F.
4. Separate channels for processing and analyzing unique signals derived from the micro phonic sensor cable upon detection of “cut through” and “climb over” attempts.
5. Shall have 2 independent sensitivity controls for adjustment of the 2 separate processing channels.
6. Alert LED indicators.
7. Alarm, Event and Tamper relay status indicators.
8. Transformer isolation and transistor suppression diodes on sensor input.
9. Adjustment for amount of events before alarm.
10. Time window adjustment for events to occur within before alarm.
11. Sensor input: The signal processor circuits shall be capable of analyzing signals from up to 3300 ft of micro phonic sensor cable.
12. The analyzer shall have reverse polarity and over voltage protection.
13. Outputs: The zone analyzer shall provide independent alarm and tamper dry relay contact outputs. It shall be possible to select either Form A (normally open) or Form B (normally closed) relay contact configurations.
14. Audio Output: A transformer coupled audio output will be provided as a standard feature of the signal analyzer.
 - a. Output Impedance: 600 ohms.
 - b. Output Level: typically 0dBm.
 - c. The audio signal provided shall be of sufficient quality to allow a trained operator to easily associate audio signals provided by the system with intrusion activities on the fence line.

2.14 SPLICE BOXES

- A. Interconnection feeder junction boxes and splice boxes with:
 1. Housing: Die cast aluminum construction, weatherproof with gasket.
 2. Tamper protected by tamper switch.
 3. Terminal block for wire connections.
 4. Sufficient input and output glands per the application.
 5. Glands to resist attempts to pull the micro phonic sensor cable and Sensor Coil PIDS pig tails from the junction box.

2.15 END OF LINE (EOL)

- A. EOL with:
 1. Housing: Die cast aluminum construction, weatherproof with gasket.
 2. Tamper protected by tamper switch.
 3. PCB for components and wire connections.

2.16 SENSOR COIL PIDS MOUNTING BRACKET

- A. DeTekion Security Systems, Inc.'s standard galvanized steel bracket or equal where required for wall or fence applications.

2.17 PERIMETER SECURITY CONTROL SYSTEM (PSCS) and TRANSPONDERS

- A. Replace the existing PSCS.
- B. Acceptable manufacturers and system
1. Open Media Network Interface (OMNI) PSCS manufactured by DeTekion Security Systems, Inc. or equal and matching VTW 450 transponder processor.
 2. The PSCS must be capable of working seamlessly with the new VTW ETWFS. The new PSCS shall facilitate all VTW ETWFS sensor adjustments from the control room via digital communication.
 3. Equal equivalent manufacturers other than those listed must be approved during the bidding period only. Manufacturers who wish to have their PSCS considered for use on this project will require approval of the WV DOC to do so. Proof of seamless compatibility with the existing & upgraded VTW ETWFS should be submitted no later than 1 calendar week before the bid date. Additional approved manufacturers deemed to be qualified will be included by written addendum.
- C. Provide FP 450 ETWFS processors / transponders at each VTW ETWFS sensor post, stacked microwave sensor links and Sensor Coil PIDS analyzers.
- D. Transponders shall:
1. Have sufficient inputs for all of the Alarm, Trouble and Tamper conditions.
 2. Be compatible with the PSCS.
 3. Be equipped with built in field suppression.
 4. Be installed in a NEMA 4 junction box that will also accommodate the associated equipment.
 5. Be able to communicate via fiber optic cables and copper cables.
 6. Be able to accommodate dry contact outputs from other systems.
- E. The PSCS shall utilize digital multiplexing technology for communication with the FP 450 transponders.
- F. The PSCS shall:
1. Consist of a computer based control unit and LCD Graphic User Interface (GUI).
 2. Rack mountable (19").
 3. Utilize a dedicated site customized security software program.
 4. Be a hierarchal system requiring passwords to perform higher level operations.
 5. Have capability / capacity to monitor up to 256 zones.

6. Provide distinct audible sounds for tamper, trouble and detection alarms.
7. Each zone shall be capable of being in a secure, access, or alarm state.
8. The GUI shall use different symbols and colors to indicate the status of each zone.
9. Include a printer.
10. All events shall be recorded in a sequential mode with a date and time stamp on non volatile memory in the control unit and printed out on the printer.
11. Have relay output cards.
12. The control unit be a rack mountable Pentium IV 2.6 GHz or higher.
13. Have 60 GB minimum capacity 7200 RPM or better hard drive.
14. Have a DVD / CD RW drive.
15. Have 1MB or more caching.
16. Have a SVGA board with min 512 MB of memory.
17. Have a internal battery backup calendar clock.
18. Have sufficient full duplex asynchronous ports with selectable baud rates.
19. 10/100 Mbs network cards.
20. Parallel printer port.
21. Have a 101 function keyboard and optical mouse.
22. Have two audio alarm speakers with 20 watt dedicated amplifier.
23. Have a modem and /or network / communication card to facilitate dial in.

G. PSCS Security Software

1. Utilize a dedicated site customized security software program.
2. Be a hierarchal system requiring passwords to perform higher level operation.
3. Provide distinct audible sounds for tamper, trouble, and detection alarms.
4. Each zone shall be capable of being in a secure, access, or alarm state.
5. The security software program shall use different symbols and colors to indicate the status of each zone.
6. A graphic drawing of the perimeter with the zone layout and status should be displayed on the GUI.
7. All events shall be recorded in a sequential mode with a date and time stamp on non volatile memory in the control unit and printed out on the printer.
8. Alarm activity shall be queued so that processing of such activity occurs in the order of arrival of each alarm indication.
9. Menu screens to allow maintenance and supervisors to adjust every aspect of the detection parameters.
10. Indicate the occurrence and location of all alarms as they occur including simultaneous alarms.
11. The PSCS software program shall have alarm data tables linking alarms to specific causes for documentation, maintenance and analysis. This feature shall be selectable. The specific causes shall be in a group of pre-loaded descriptors. The operator shall also have the opportunity to add a unique description.

12. The PSCS software program shall have a data base search feature to facilitate research, statistical analysis and graphical representation.

H. The LCD GUI shall:

1. Graphic User Interface (GUI):
 - a. Rack mountable (19").
 - b. 17 inch touch screen.
 - c. Serial data link.

I. Relay Card:

1. Rack mountable.
2. Shall have dry contact outputs; NO or NC.
3. Shall have up to 4 relay outputs per alarm zone.
4. LED for relay state.
5. Shall have a self test feature.

J. Printer:

1. Ink jet printer:
 - a. Color printer.
 - b. Min 24 pages ppm.
 - c. Suitable for rack mount.
 - d. Minimum 64K internal memory.

2.18 UNINTERRUPTABLE POWER SUPPLY (UPS)

- A. The existing UPS will be utilized.

2.19 PERIMETER SECURITY CONTROL SYSTEM CONSOLE AND RACKS

- A. Where possible use the existing consoles and racks.
- B. Acceptable manufacturers:
 1. Winstead.
 2. Stantron.
 3. Equal.
- C. 19" rack console to accommodate the PSCS and associated equipment.
- D. Cabinet frame to be constructed of prime 14 gauge steel welded into one basic modular frame with 4 supporting corner gussets.
- E. Side panels to be constructed of prime 16 gauge steel.
- ~~F. Doors shall be constructed of 16 gauge cold rolled steel in a channel shape and shall be mounted on to the frame by means of a continuous piano type hinge welded to the door and bolted to the frame support angles.~~

G. Provide approved locks for all doors and access panels.

H. Provide with fans, power strips, keyboard and mouse drawer and wheels.

2.20 ACCESSORIES AND HARDWARE

A. Provide all system related accessories required for a fully operational PIDS including the VTW ETWFS, microwave sensor links, Sensor Coil PIDS, and the PSCS.

B. All hardware shall be hot dipped galvanized or stainless steel. Provide hardware such that any potential dissimilar metal corrosion is eliminated.

C. Where applicable and possible fasteners shall be removable tamper proof.

2.21 MARKERS AND NAME PLATES

A. Pre marked self adhesive W.H. Brady Co. s' B940 or equal.

B. Name Plates shall be as follows:

1. Precision engraved letters and numbers with uniform margins, character size minimum 3/16 inch high.
2. Phenolic – Two color laminated engraves stock, 1/16 inch minimum thickness; machine engraves to expose inner core color (white).
3. Aluminum - Standard aluminum alloy plate stock, minimum .032 inches thick, engraved areas enamel filled or background enameled with natural aluminum graved characters.
4. Material for outdoor applications should be as per manufacturer's recommendations.

2.22 LIGHTNING AND SURGE PROTECTION

A. Provide lightning and transient protection per the manufacturers recommendations.

B. All metallic communications and data entering or leaving a building shall be connected to surge protection modules.

2.23 JUNCTION BOXES AND ENCLOSURES.

A. Junction boxes and enclosures will be provided by the manufacturer.

~~B. Junction boxes should be manufacturer's standard for end of lines, splice boxes, processors / transponders, analyzers and NEMA-4 cast iron for other applications.~~

- C. Provide with the following features and characteristics:
 1. Size shall be per manufacturers recommendations.
 2. Screw for junction box cover shall be stainless steel tamper proof with Allen head with center pin.
 3. Provide tamper switch in each enclosure to signal opening of cover.

2.24 POWER AND INFORMATION CABLE

- A. All cables shall be suitable for outdoor installation and direct burial.
- B. Where possible the existing cable shall be utilized.
- C. Supply power and information cable as required.

2.25 GROUNDING

- A. Provide all grounding material per the manufacturers recommendations and applicable codes.

2.26 CONCRETE

- A. Refer to American Concrete Institute (ACI) for standards.
- B. 3000 PSI at 28 days.

2.27 FENCE POSTS

- A. Comply with ASTM A 120 for requirements of Schedule 40 piping or SS40 pipe as manufactured by Allied Tube and Conduit Corp.
- B. Posts, arms and bracing:
 1. Post: 6.625 inches OD, 18.97 lb per linear ft.
 2. Post: 4 inches OD, 9.11 lb per linear ft.
 3. Post: 2.375 inches OD, 3.65 lb per linear ft.
 4. Post: 2.375 inches OD, 3.65 lb per linear ft.
 5. Braces: 2.375 inches OD, 3.65 lb per linear ft.
- C. Class B Steel Tubing: SS-40 fence pipe as manufactured by Allied Tube and Conduit Corp may be substituted for 4.0 inch OD Schedule 40 pipe and 2.375 inch OD Schedule 40 pipe.
- D. Finishes:
 1. Pipe: Galvanized in accordance with ASTM A 120, 2.0 oz. zinc per sq/ft.
 2. Class B Steel Tubing: Exterior; 1.0 oz. zinc per sq ft plus a coating of chromate and polyurethane. Interior = zinc rich organic coating.

2.28 THIRTY INCH DIAMETER SECURITY COILS /BARBED TAPE

- A. Concertina Type: Minimum 51 coil loops fabricated by wrapping a barbed tape made of AISI 430 stainless steel, whose hardness is optional, around a 300 series austenitic stainless steel core wire. Diameter of the core wire shall be 0.098 inch plus or minus 0.002 inch, and the tensile strength shall be a minimum of 140,000 psi. The barbs shall be offset from the plane of the core wire. Outside diameter of the coil loops shall be 30 inches (plus or minus 2 inches). Each loop shall consist of 24 (plus or minus one) clusters of four needle sharp barbs on four-inch centers, each barb measuring a minimum of 1.2 inches in length.
- B. Adjacent coil loops shall be attached alternately at 5 points of equal spacing about the circumference with stainless steel flat metal band type clips approximately 0.375 inch wide and 0.065 inch thick. These clips shall prevent the coil loops from being pulled apart at each point of attachment when a minimum 200-pound load is applied, as specified in the barbed tape test procedure. Wrapping of barbed tape about the line wire shall be accomplished within the tolerances specified in MIL-B-52489E, except that the tape shall be wrapped a minimum of 230 degrees and shall satisfy the push test specified therein.
- C. Extended length shall be 25 feet (plus or minus 2 feet), with a maximum spacing between loops of 12 inches.

2.29 ANCHORS

- A. Anchors shall be heavy duty sleeve type expansion anchors.
- B. Expansion shall occur at a minimum of 2 locations within the hole.

2.30 SPARE PARTS

- A. Provide the following spare parts:
 1. Ten (10) slider posts.
 2. Two (2) reels of barbed wire – 1320 ft each.
 3. Ten (10) tensioners.
 4. Ten (10) springs with limiters.
 5. One (1) box of “S” hooks – 25 per box.
 6. One (1) taut wire processors / transponders.
 7. One (1) Sensor Coil module – 25 ft.
 8. One (1) zone analyzers.
 9. One (1) end of line.
 10. One (1) splice box.
 11. Ties for one (1) Sensor Coil module – 25 ft.
 12. One (1) microwave link.
 13. One (1) diagnostic software package for the VTW ETWFS (laptop by WV DOC).
-

PART III - EXECUTION

3.00 INSTALLATION

- A. At the end of each work day the entire PIDS including all VTW ETWFS zones, stacked microwave link zones, Sensor Coil PIDS zones and the PSCS shall be fully operational. All zones worked on shall be calibrated and tested.
- B. All installation will be per the respective manufacturers written instructions.
- C. Scope of work to include but not limited to replacing of all sensor posts, processors, taut wires, tensioners and PSCS. Install new microwave sensors and new Sensor Coil PIDS zone.
- D. The WV DOC and Mount Olive Correctional Complex will:
 1. Assist with the coordination of all aspects of the project.
 2. Provide 2 technicians for onsite installation assistance for each work day.
 3. Provide the motorized lift with an operator for the installation of the roof mounted Sensor Coil PIDS and other area as required.
 4. Remove the STW – 40 sensors from the old sensor posts, test and store for future use.
- E. The contractor will:
 1. Install all of the components and systems.
 2. Make cable connections, terminations, and splices at splice boxes, end of line boxes, junction boxes, interface boxes, processors / transponders, analyzers, microwave sensors and PSCS only.
 3. Hand over to the WV DOC the old sensor posts for additional spares.
 4. Identify all conductors with markers.
 5. Install and program the PSCS, UPS, Consoles, and associated equipment.
 6. Assist with the connection and integration of the PSCS and mobile map system.
 7. Commission and test the PIDS.
 8. Train maintenance and operational personnel.

3.01 FIELD QUALITY CONTROL

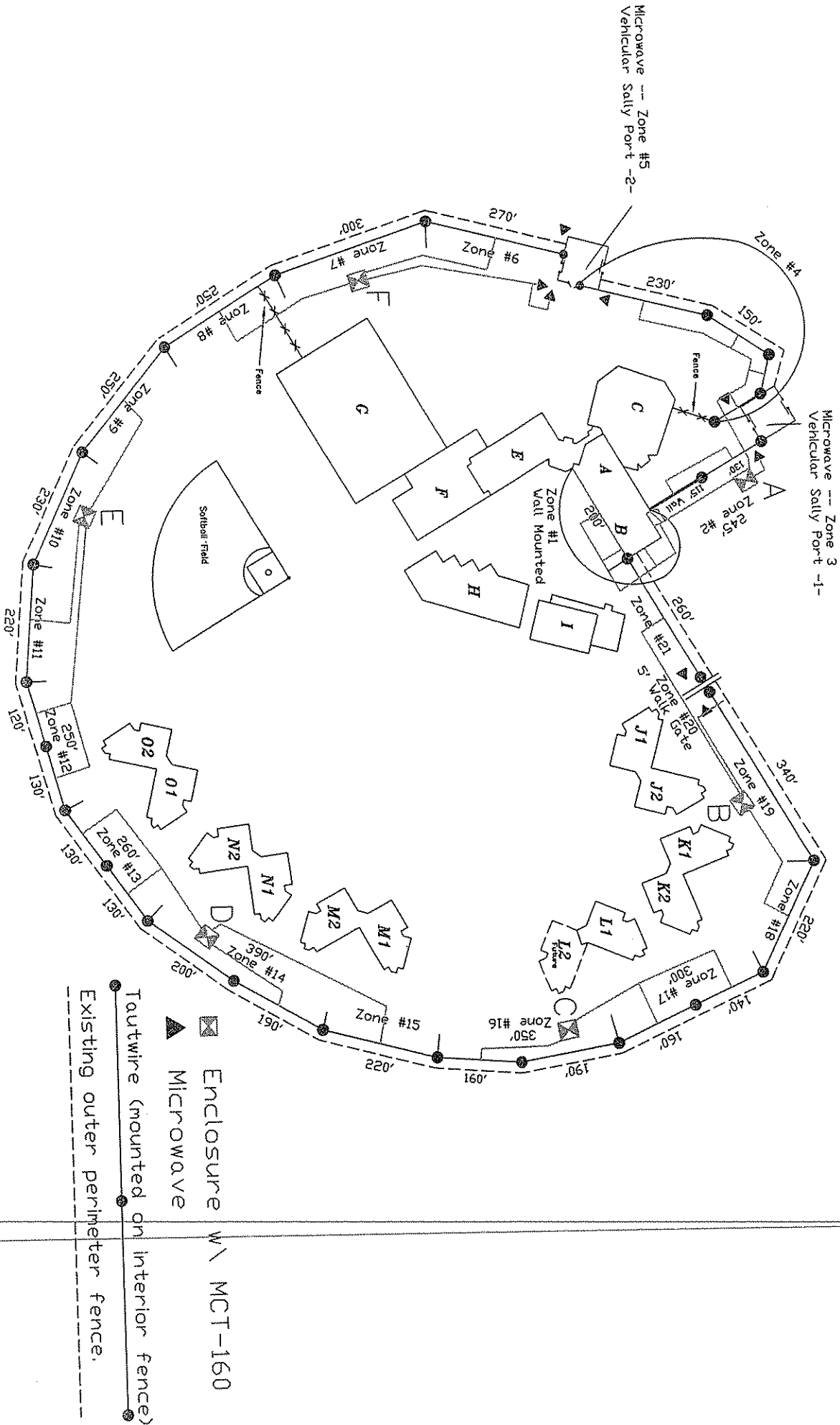
- A. The contractor shall provide all equipment necessary for system adjustment and testing (including appropriate safety equipment).
- B. The Certified Field Advisor shall brief all participants on safety requirements and issues.
- ~~C. The contractor's personnel shall conduct the test.~~
- D. Each zone / sector that has been modified shall be tested at the end of the day to verify that it operates per section 1.04 THE UPGRADED PIDS –

DESCRIPTION and per section 3.01 – F: System Acceptance Test.

- E. Preliminary System Test: At the completion of the installation of all of the PIDS equipment and the upgrade of all of the zones the following preliminary system test shall be done:
1. Preparation:
 - a. The Certified Field Advisor will assist with the adjustment of the completed system.
 - b. Test the system per System Acceptance Test: Section 3.01 - F.
 - c. Run the entire PIDS including the VTW ETWFS, the stacked microwave sensor links, the Sensor Coil PIDS and the PSCS for 1 week and verify that the system is operating according to the specifications.
 - d. Train facility personnel during the 1 week preliminary test period.
- F. System Acceptance Test: At the completion of the preliminary system test the following system acceptance test shall be done:
1. Make the following test as an integral test required for this section:
 - a. Test each system function step by step as summarized under 1.04 THE UPGRADED PIDS DESCRIPTION.
 - b. Simulated escape attempts shall be performed listed below at 2 locations in each zone unless otherwise directed (the WV DOC shall select exact location and type of escape attempt or combination of attempts). Each penetration of the VTW ETWFS, stacked microwave sensor links, Sensor Coil PIDS shall produce an alarm. If it does not, wait 30 seconds and repeat in the same location. If misses are repeated in the same location, the entire zone must be corrected and retested. The simulated escape attempts shall be performed by a person weighing 100 lbs or more.
 - c. Terminate each test at detection or when the penetration / simulated escape attempt is complete, whichever comes first.
 - 1) Fast Climb Over: VTW ETWFS - Using a metal rod with a hook at the end of it pull on the taut wires with the force of at least 55 lb (25 kg) to simulate quickly climbing over them (the use of a “fish scale” is permitted). Sensor Coil PIDS – using a metal rod apply a dynamic force to the sensor coil resembling a climb for at least 4 seconds.
 - 2) Slow / Stealthy Climb Over: Do the same as the above very slowly.
 - 3) Cut Through: VTW ETWFS – Simulate the cutting of a taut wire by releasing tension at a tensioner. Sensor Coil PIDS - Simulate cutting of the Sensor Coil PIDS by installing several wire ties tightly around several of the coils and then cutting them by an amount equal to what the “event” setting is set to and within the time window.
 - 4) Run Through: stacked microwave sensors: Run as fast as possible

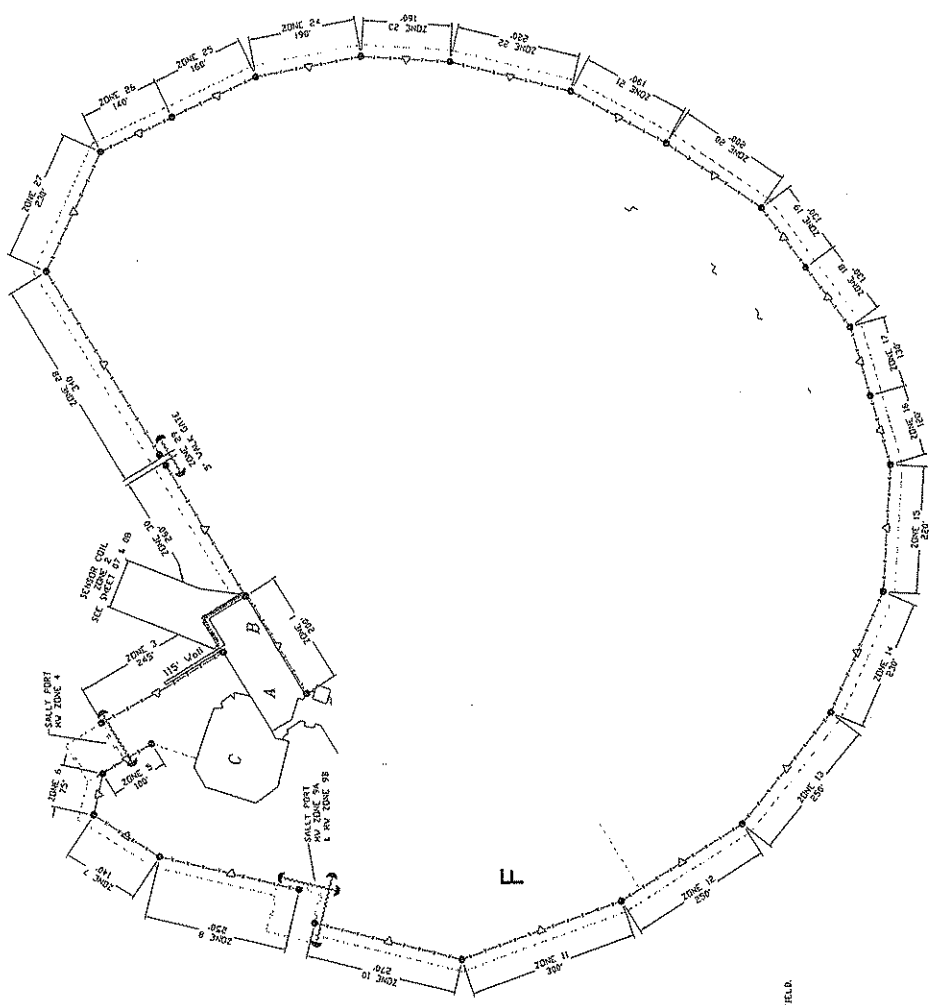
- through the invisible beams.
- 5) Crawl Through – stacked microwave sensors: crawl slowly through the invisible beams.
 - 6) Gate Overlap – Try to get to the gate from behind and between the microwave sensors and the adjacent fence by crawling, walking and running.
- G. The following tests shall be performed to show that the system will not alarm from the following stimuli:
1. A person weighing 100 to 200 lbs walking at 3 mph and running as close as safety permits to the inner fence.
- H. Repair all items that may have been damaged during the test.
- I. Submit written report of test results signed by Company Field Advisor and the WV DOC representative.

END OF SECTION



MT. OLIVE CORRECTIONAL FACILITY MT. OLIVE, WY	
PERIMETER SECURITY SYSTEM ZONE LAYOUT	
DATE: 12/28/97	SCALE: 1" = 100'
PROJECT: 1278297	REV: 0
DESIGNER: MT-OLIVE-01.DWG	DATE: 01 OF 12

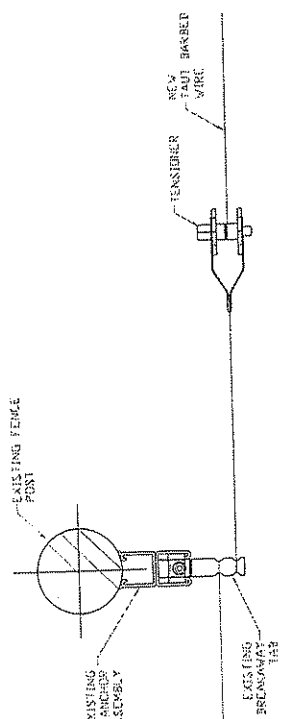
- LEGEND**
- ELECTRONIC WIRE FENCE DESIGN KEYED TO EXISTING VERTICAL CHAIN LINK FENCE
 - SENDER COIL WITH MICROWAVE INTERGRATED DETECTION SYSTEM PRIDS ON BUILDING SEE SHEETS 07 & 08
 - EXISTING PRISON FENCES
 - EXISTING ANCHOR POSTS
 - NEW SENSOR POST
 - MICROWAVE "M" SYSTEM



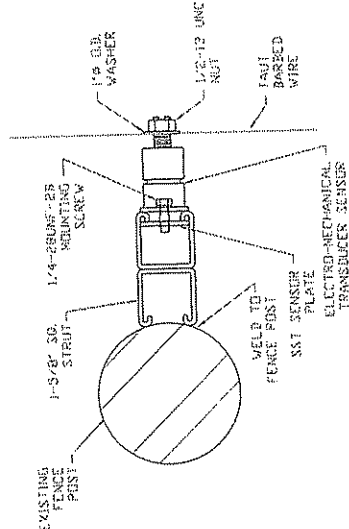
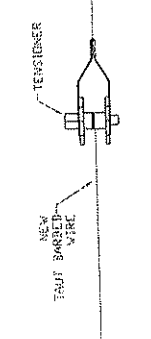
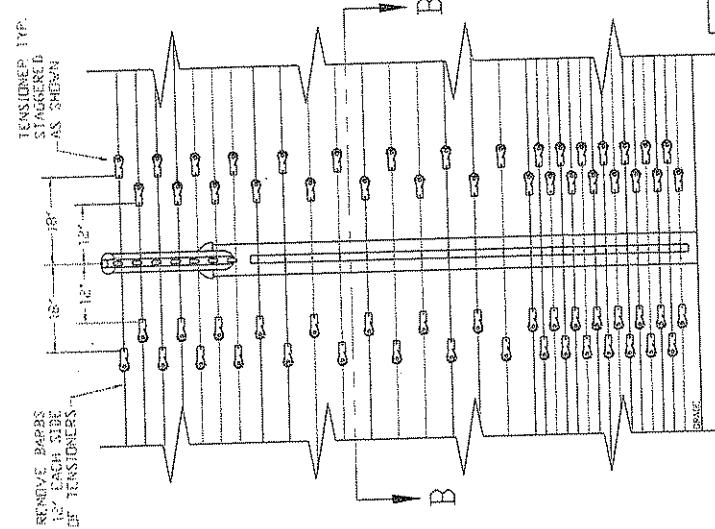
- NOTES**
- VERIFY DIMENSIONS IN THE FIELD.
 - NEW ZONE LAYOUT SHOWN.

UPGRADED PERIMETER INTRUSION DETECTION SYSTEM (PIDS) ZONE LAYOUT

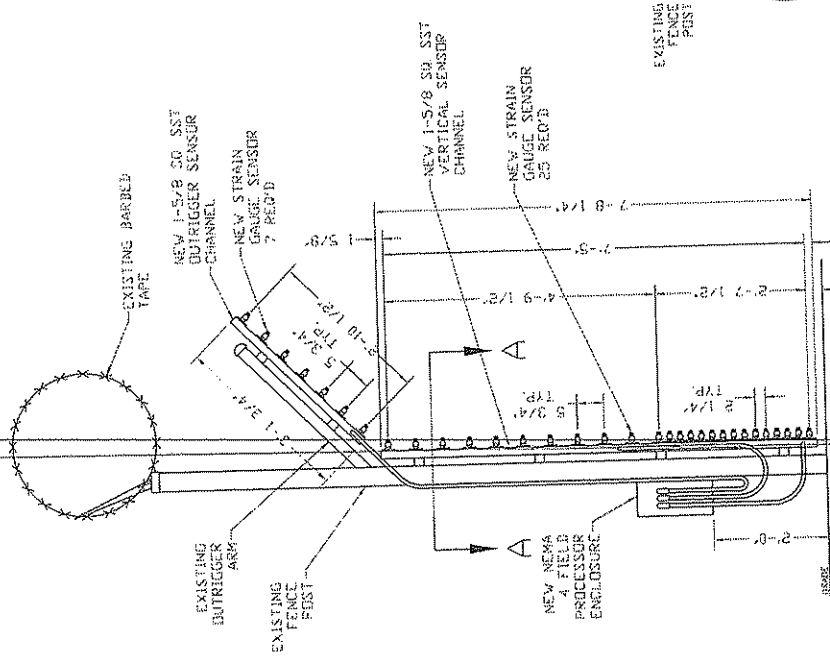




SECTION B-B
N.E.S.



SECTION A-A
N.E.S.

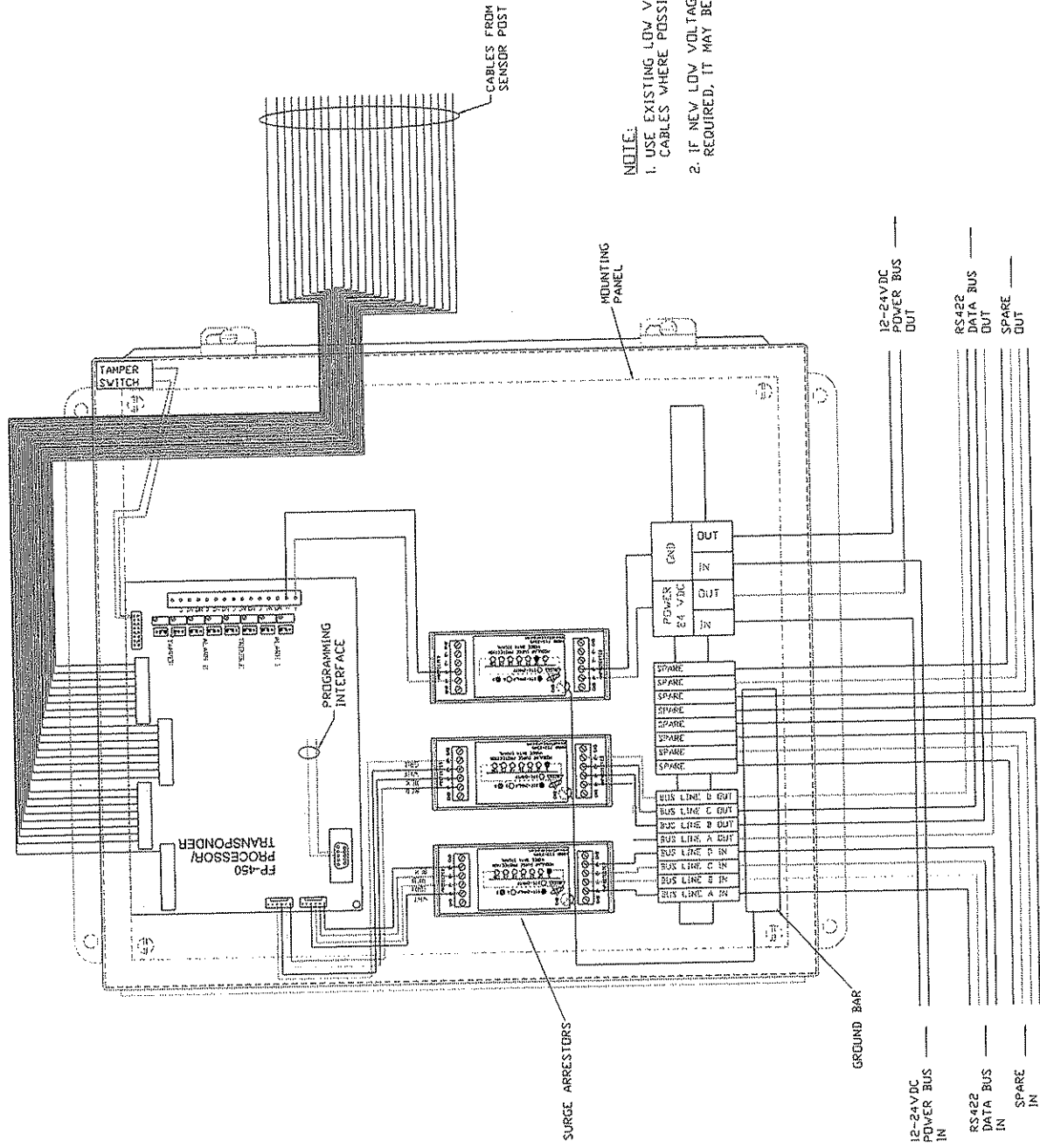


NEW SENSOR POST DETAIL

EXISTING ANCHOR ELEVATION
N.E.S.

MT. OLIVE CORRECTIONAL FACILITY MT. OLIVE, WY	
STAFFS SENSOR POST & ANCHORING DETAILS	
DATE: 10/20/09	REV: 0
SCALE: 1/12	DATE: 09/07/12
DRAWN BY: MT-OLIVE/BJM/R	

16x14 FIELD ENCLOSURE


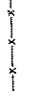







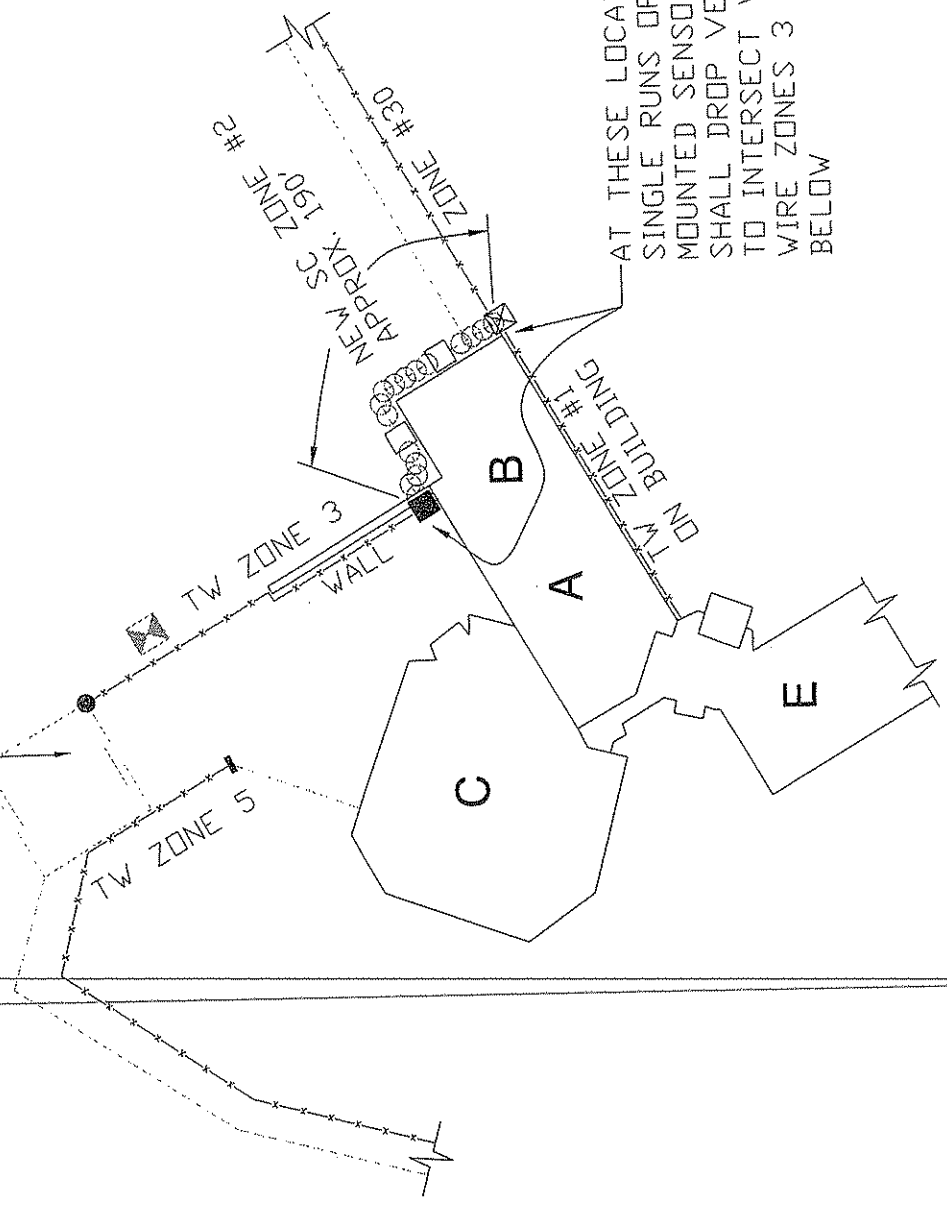
NOTE:
 1. USE EXISTING LOW VOLTAGE POWER AND COMMUNICATION CABLES WHERE POSSIBLE.
 2. IF NEW LOW VOLTAGE AND COMMUNICATION CABLE IS REQUIRED, IT MAY BE TIED TO THE FENCE.

MT. OLIVE CORRECTIONAL FACILITY		REV. 0	
MT. OLIVE, ILL.		REV. 0	
VTW ETWFS TYPICAL FIELD ENCLOSURE DETAIL		REV. 0	
DATE: 02/21/93	DESIGNER: J. H. HARRIS	DRAWN: J. H. HARRIS	SCALE: 04 OF 12

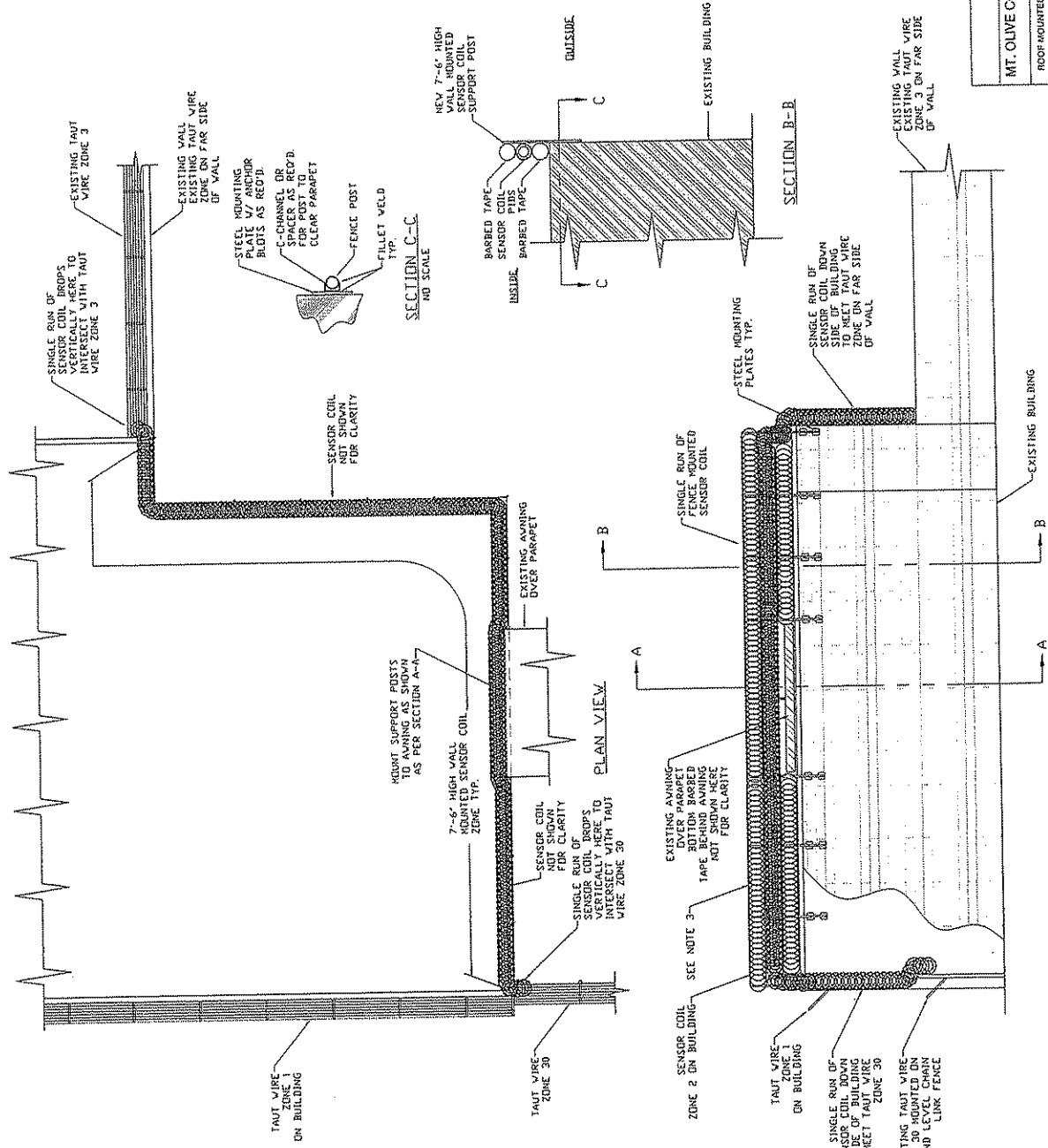
SALLY PORT 1
MICROWAVE ZONE 4

LEGEND

-  NEW SENSOR COIL PERIMETER INTRUSION DETECTION SYSTEM (PIDS) ON NEW 7'-6" ROOF MOUNTED SUPPORT POST STRUCTURE
-  EXISTING ELECTRONIC TAUT WIRE FENCE SYSTEM (ETWF'S) ZONES
-  EXISTING PRISON FENCES
-  FIELD ENCLOSURE W/ NEW FP-450 TRANSPONDER
-  FIELD ENCLOSURE WITH SENSOR COIL ANALYZER
-  END OF LINE TERMINATION BOX
-  SPLICE BOX AS REQUIRED



MT. OLIVE CORRECTIONAL COMPLEX	
MT. OLIVE, WV	
ROOF MOUNTED SENSOR COIL ZONE LAYOUT	
DATE: 11/05/09	REVISION:
DRAWN: MJS	PROJECT: MT. OLIVE 07 DWG
PAGE: 07 OF 12	



- NOTES:**
1. VERIFY BUILDING WILL SUPPORT THE NEW CHAIN LINK FENCE, BARBED TAPE, AND SENSOR STRUCTURE.
 2. NO PART OF THE FENCE STRUCTURE SHALL TOUCH OR PENETRATE THE ROOF OF THE BUILDING.
 3. SENSOR COIL PIDS AND BARBED TAPES TO BE TIED TO WIRE RUNS BETWEEN SUPPORT POSTS AT ALL POINTS OF CONTACT WITH WIRE TIES.
 4. SENSOR COIL PIDS TO BE TIED TO ADJACENT BARBED TAPES WITH SST WIRE TIES AT ALL POINTS OF CONTACT.

MT. OLIVE CORRECTIONAL COMPLEX MT. OLIVE, WY	
ROOF MOUNTED SENSOR COIL BUILDING DETAILS	
DATE: 11/10/09	REV: 0
DESIGN: NIS	NO. 4
SCALE: 1/8" = 1'-0"	DATE: 09 OF 12

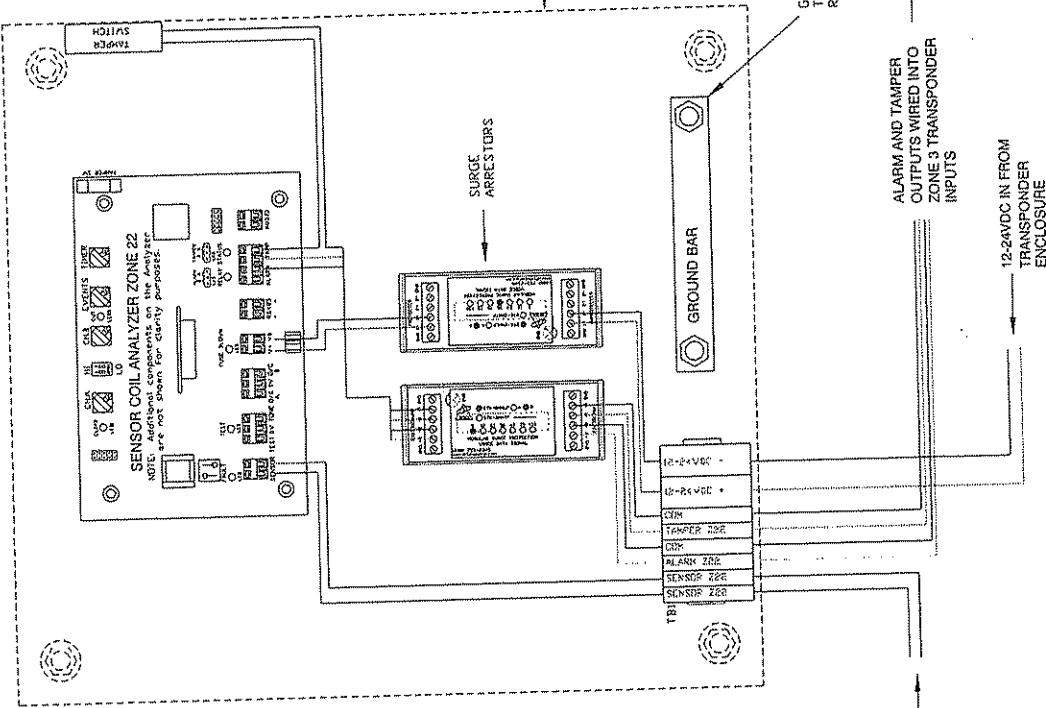
FRONT ELEVATION VIEW

SECTION A-A

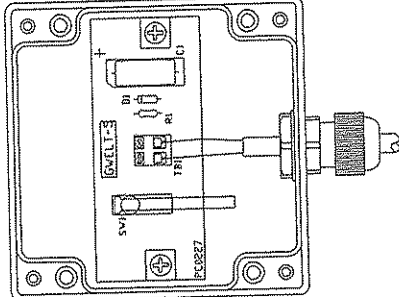
SECTION B-B

SECTION C-C
NO SCALE

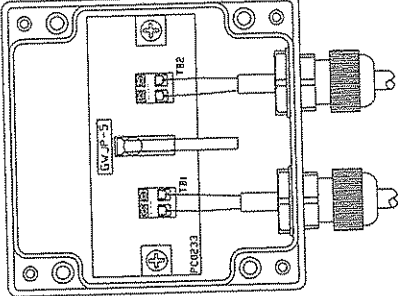
WATER PROOF
FIELD ENCLOSURE



MOUNT FIELD ENCLOSURE
NEXT TO EXISTING
TRANSDUCER ENCLOSURE



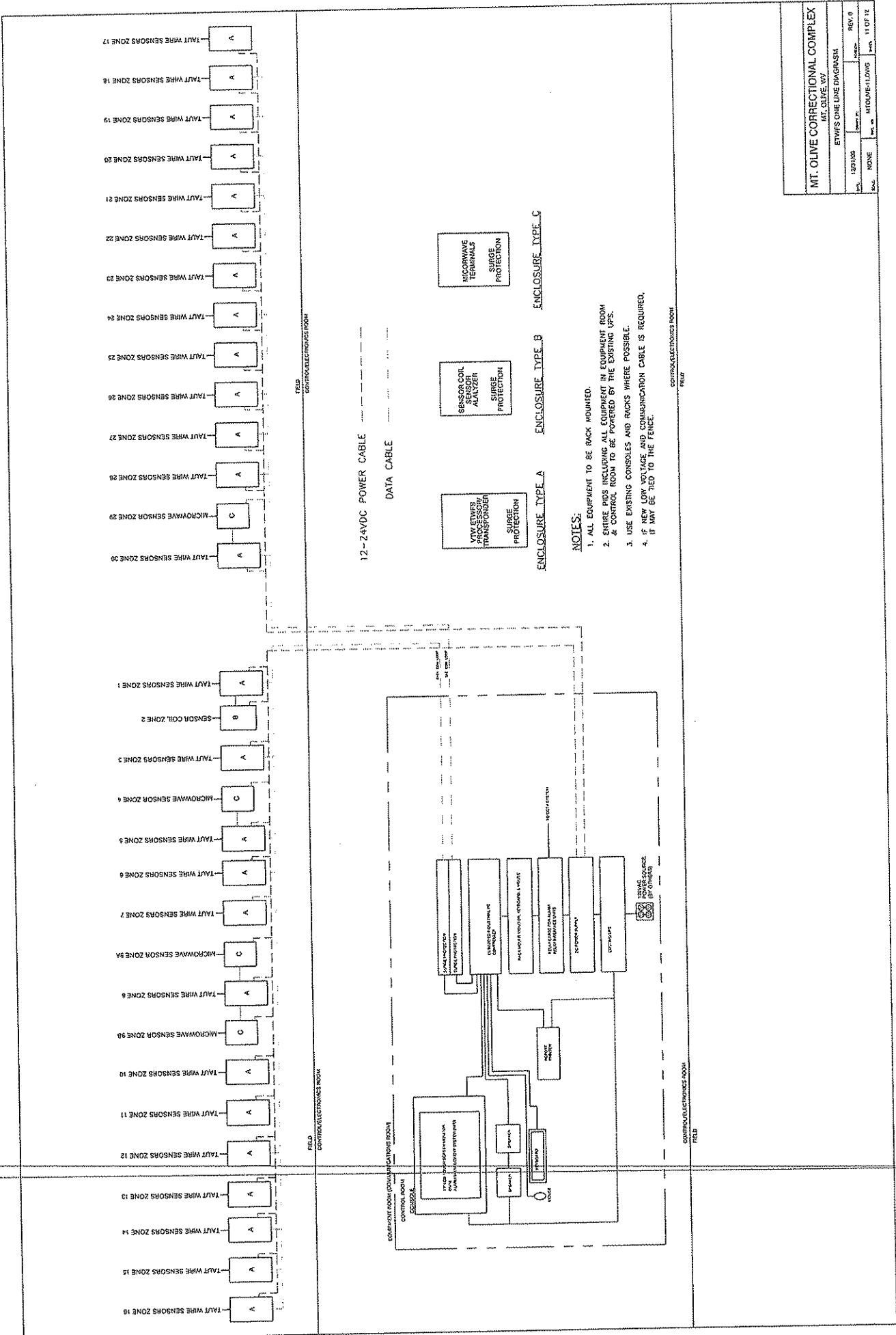
END OF LINE BOX
SCALE: NONE



SPLICE BOX
SCALE: NONE

MT. OLIVE CORRECTIONAL COMPLEX MT. OLIVE, WV	
TYPICAL FIBS ENCLOSURE DETAILS	
DATE: 1/17/89	REV: 0
DESIGNER: [blank]	PROJECT: [blank]
SCALE: AS NOTED	FIG. NO: HIC046-04.010
SHEET 10 OF 12	

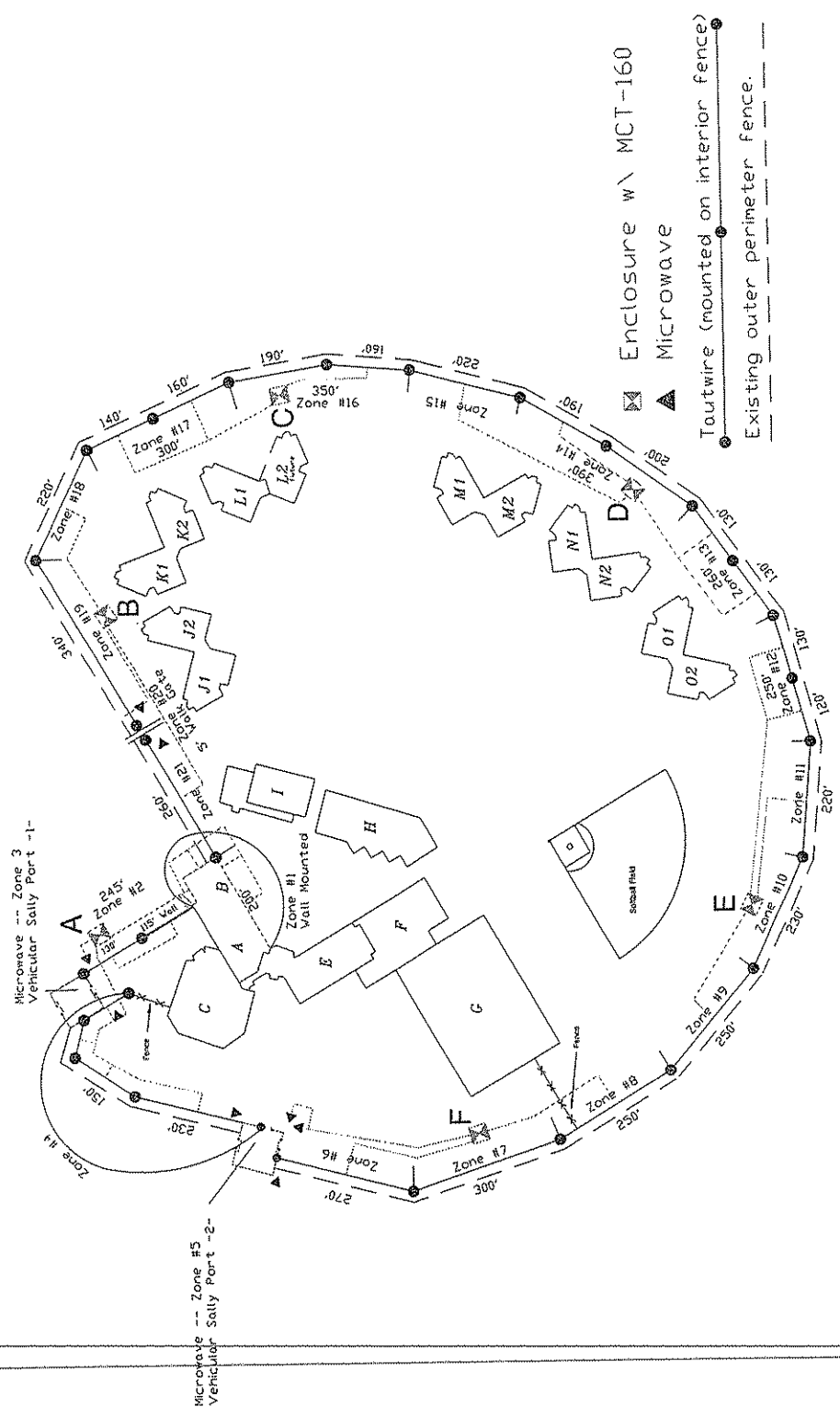
NON-SENSITIVE CABLE IN
FROM SENSOR COIL ZONE 2



MT. OLIVE CORRECTIONAL COMPLEX ART. CODE: 003	
ETVFS ONE LINE DIAGRAM	REV. 0
DATE: 12/31/03	DRAWN BY:
ROOM:	SHEET NO. 11 OF 12

- NOTES:**
1. ALL EQUIPMENT TO BE RACK MOUNTED.
 2. ENTIRE PIDS INCLUDING ALL EQUIPMENT IN EQUIPMENT ROOM & CONTROL ROOM TO BE POWERED BY THE EXISTING UPS.
 3. USE EXISTING CONSOLES AND RACKS WHERE POSSIBLE.
 4. IF NEW LOW VOLTAGE AND COMMUNICATION CABLE IS REQUIRED, IT MAY BE TIED TO THE FENCE.

MT. OLIVE CORRECTIONAL FACILITY MT. OLIVE, WY	
EXISTING PIDS ZONE LAYOUT	
DATE: 12/28/99	REV: 0
DRAWN BY: [blank]	DESIGN: [blank]
SCALE: 1" = 100'	PROJECT: MT. OLIVE-15.0010
	DATE: 05.07.12



EXISTING PIDS ZONE LAYOUT

COR61448 - Bid Form			
Description	Estimated Order Qty.	Unit Price	Extended Total
VTW Equipment - Sensor Posts & Processors			
Replace existing Sensor Posts with new Sensors Posts & Sensors, 26 posts have 25 and 8, Sensors (vertical & outrigger), One (1) post is an outrigger only (Zone #1)	27		
Replace existing Processors & Transponders with new Processor / Transponder, add additional information cable & low voltage cable as required (outdoor application, fence mounted)	27		
Replace existing Junction boxes with new NEMA (waterproof) Boxes	27		
Sub Total (equipment & labor)			\$ -
VTW Equipment - Taut Wires			
Replace existing Taut Wires & Tensions with Bezinel barbed wire & New Tensioners	864 Tensioners, 147 reels of Bezinel barbed wire (1320 ft each reel)		
Sub Total (equipment & labor)			\$ -
Control			
Replace Control	1 Control with 21" monitor, Relays for 30 zones, 1 Equipment rack & 1 set of accessories, cables etc', 1 rack mounted monitor, 1 power supply		
Sub Total (equipment & labor)			\$ -
Microwave Sensors			
Add Microwave Sensors to Existing Sensors (increase detection field)	4 microwave links, provide 8 posts to extend existing posts		
Sub Total (equipment & labor)			\$ -
Associated Drawings & Submittals	1		\$ -
Shipping	1		\$ -
Total			\$ -
Failure to use this form may result in disqualification		Grand Total***	\$ -
Bidder / Vendor Information:			
Names: _____			
Address: _____			
Phone# : _____			
Email Address: _____			
Contract Coordinator Information:			
Names: _____			
Address: _____			
Phone# : _____			
Email Address: _____			

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, _____
_____ of _____, _____, as Principal, and _____
_____ of _____, _____, a corporation organized and existing under the laws of the State of _____
_____ with its principal office in the City of _____, as Surety, are held and firmly bound unto the State
of West Virginia, as Obligee, in the penal sum of _____ (\$ _____) for the payment of which,
well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the
Department of Administration a certain bid or proposal, attached hereto and made a part hereof, to enter into a contract in writing for

NOW THEREFORE,

- (a) If said bid shall be rejected, or
- (b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal attached
hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform the
agreement created by the acceptance of said bid, then this obligation shall be null and void, otherwise this obligation shall remain in full
force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event,
exceed the penal amount of this obligation as herein stated.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no
way impaired or affected by any extension of the time within which the Obligee may accept such bid, and said Surety does hereby
waive notice of any such extension.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their hands and seals, and such of them as are corporations
have caused their corporate seals to be affixed hereunto and these presents to be signed by their proper officers, this
_____ day of _____, 20_____.

Principal Corporate Seal

(Name of Principal)

By _____
(Must be President or
Vice President)

(Title)

Surety Corporate Seal

(Name of Surety)

Attorney-in-Fact

**IMPORTANT – Surety executing bonds must be licensed in West Virginia to transact surety insurance. Raised corporate seals
must be affixed, a power of attorney must be attached.**

AGENCY (A) _____
RFQ/RFP# (B) _____

Bid Bond

- (A) WV State Agency
(Stated on Page 1 "Spending Unit")
Request for Quotation Number (upper
right corner of page #1)
- (C) Your Company Name
- (D) City, Location of your Company
- (E) State, Location of your Company
- (F) Surety Corporate Name
- (G) City, Location of Surety
- (H) State, Location of Surety
- (I) State of Surety Incorporation
- (J) City of Surety Incorporation
- (K) Minimum amount of acceptable bid
bond is 5% of total bid. You may state
"5% of bid" or a specific amount on
this line in words.
- (L) Amount of bond in figures
- (M) Brief Description of scope of work
- (N) Day of the month
- (O) Month
- (P) Year
- (Q) Name of Corporation
- (R) Raised Corporate Seal of Principal
- (S) Signature of President or Vice
President
- (T) Title of person signing
- (U) Raised Corporate Seal of Surety
- (V) Corporate Name of Surety
- (W) Signature of Attorney in Fact of the
Surety

NOTE: Dated, Power of Attorney with Raised
Surety Seal must accompany this bid
bond.

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned,
 _____ (C) of _____ (D), _____ (E)
 as Principal, and _____ (F) of _____ (G),
 _____ (H), a corporation organized and existing under the laws
 of the State of _____ (I) with its principal office in the City of
 _____ (J), as Surety, are held and firmly bound unto The State
 of West Virginia, as Obligee, in the penal sum of _____ (K)
 (\$ _____ (L)) for the payment of which, well and truly to be made,
 we jointly and severally bind ourselves, our heirs, administrators, executors,
 successors and assigns.

The Condition of the above obligation is such that whereas the Principal
 has submitted to the Purchasing Section of the Department of Administration
 a certain bid or proposal, attached hereto and made a part hereof to enter into a
 contract in writing for _____ (M)

NOW THEREFORE.

(a) If said bid shall be rejected, or
 (b) If said bid shall be accepted and the Principal shall enter into a
 contract in accordance with the bid or proposal attached hereto and shall furnish
 any other bonds and insurance required by the bid or proposal, and shall in all
 other respects perform the agreement created by the acceptance of said bid then
 this obligation shall be null and void, otherwise this obligation shall remain in full
 force and effect. It is expressly understood and agreed that the liability of the
 Surety for any and all claims hereunder shall, in no event, exceed the penal
 amount of this obligation as herein stated

The Surety for value received, hereby stipulates and agrees that the
 obligations of said Surety and its bond shall be in no way impaired or affected by
 any extension of time within which the Obligee may accept such bid: and said
 Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their
 hands and seals, and such of them as are corporations have caused their corporate
 seals to be affixed hereto and these presents to be signed by their proper officers,
 this _____ (N) day of _____ (O), 20 _____ (P).

Principal Corporate Seal _____ (Q)
 _____ (R) (Name of Principal)
 By _____ (S)
 _____ (Must be President or
 Vice President)
 _____ (T)
 _____ Title
 _____ (U)
 Surety Corporate Seal _____ (V)
 _____ (Name of Surety)

 _____ (W)
 Attorney-in-Fact

IMPORTANT – Surety executing bonds must be licensed in West Virginia to
 transact surety insurance. Raised Corporate Seals must be affixed and a Power of
 Attorney must be attached.



State of West Virginia
DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT
West Virginia Code §21-1D-5

STATE OF _____

COUNTY OF _____, TO-WIT:

I, _____, after being first duly sworn, depose and state as follows:

- 1. I am an employee of _____; and,
(Company Name)
- 2. I do hereby attest that _____
(Company Name)

maintains a valid written drug free workplace policy and that such policy is in compliance with **West Virginia Code** §21-1D-5.

The above statements are sworn to under the penalty of perjury.

(Company Name)

By: _____

Title: _____

Date: _____

Taken, subscribed and sworn to before me this _____ day of _____.

By Commission expires _____

(Seal)

(Notary Public)

THIS AFFIDAVIT MUST BE SUBMITTED WITH THE BID IN ORDER TO COMPLY WITH WV CODE PROVISIONS. FAILURE TO INCLUDE THE AFFIDAVIT WITH THE BID SHALL RESULT IN DISQUALIFICATION OF THE BID.

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: _____

Authorized Signature: _____ Date: _____

State of _____

County of _____, to-wit:

Taken, subscribed, and sworn to before me this ____ day of _____, 20__.

My Commission expires _____, 20__.

AFFIX SEAL HERE

NOTARY PUBLIC _____