CONTRACT FOR REBANDING SERVICES

This contract ("Agreement") is made this 24 day of January February 2009 (the "Effective Date") by and between **Pasco County Sheriff's Office**, a constitutional officer of the State of Florida, on behalf of itself and **Pasco County, Florida**, a political subdivision of the State of Florida, and **City of Dade City, Florida**, a municipality within the state of Florida (collectively referred to hereafter as "Licensee or Incumbent") and **M/A-COM, INC.**, a Florida corporation ("M/A-COM" or "Contractor"), whose mailing address is 221 Jefferson Ridge Parkway, Lynchburg, VA 24501 (the Incumbent and Contractor may be referred to individually as the "Party" or collectively as "the Parties").

This Agreement is made with reference to the following recitals which are incorporated herein and made part of this Agreement:

WHEREAS, on August 6, 2004, the Federal Communications Commission ("FCC") issued a Report and Order FCC 04-168 that modified its rules governing the 800 MHz band to minimize harmful interference to public safety communications systems. On December 22, 2004, the FCC issued a Supplemental Order and Order on reconsideration FCC 04-294. The August 6 and December 22, 2004 orders, and any supplemental orders issued by the FCC, are collectively referred to as the "Order"; and

WHEREAS, pursuant to an Intergovernmental Agreement between the Pasco County Sheriff's Office, Pasco County, Florida and the City of Dade City, Florida entered into on June 20, 2006 (the "Intergovernmental Agreement"), the Pasco County Sheriff's Office was delegated the authority to act on behalf of itself and Pasco County, Florida and the City of Dade City to negotiate and execute all agreements with Sprint/Nextel, Inc. necessary or required to comply with the Orders and will act as the primary point on behalf of the Incumbent with M/A-COM; and

WHEREAS, pursuant to the Orders certain licensees of 800 MHz frequencies used in public safety systems must reconfigure their systems to operate on other licensed public safety frequencies, and Sprint Nextel Corporation ("Sprint Nextel") must relinquish some of its existing channels and must provide all funds necessary ("Relocation Funds") to provide each such licensee reconfigured facilities that are comparable to those presently in use ("Comparable Facilities"); and

WHEREAS, pursuant to the Orders, Incumbent and Sprint Nextel have entered into a Frequency Reconfiguration Agreement dated March 21, 2008, (the "FRA"), pursuant to which Incumbent has agreed to relinquish certain 800 MHz frequencies (the "Incumbent Frequencies") and reconfigure its system to certain replacement frequencies (the "Replacement Frequencies"); and

WHEREAS, the FRA provides that Sprint Nextel will pay all the costs of such reconfiguration according to a procedure which is consistent with the payment procedure in this Agreement; and

WHEREAS, the FCC has appointed a Transition Administrator (the "TA") to ensure that the rebanding initiative proceeds on schedule and in a planned and coordinated manner so that disruption to an Incumbent's system is minimized. This Agreement is made pursuant to certain policies and procedures required by the TA and pursuant to its authorities under the Order; and

WHEREAS, Incumbent desires to engage the services of Contractor as an independent contractor to perform Reconfiguration Services (as defined below) of Incumbent's Incumbent Frequencies.

NOW, THEREFORE, for good and valuable consideration, the Parties mutually agree as follows:

1. **TERM.**

This Agreement shall be effective as the Effective Date and continue until the Reconfiguration Services are substantially completed and Contractor has been paid in full, unless sooner terminated by either party as specified in Section 18 below.

2. **INCORPORATED DOCUMENTS.**

The Parties agree that this Agreement incorporates the following attachments in descending order of constructive precedence:

ATTACHMENT A – FREQUENCY RECONFIGURATION AGREEMENT (FRA) dated March 21, 2008 between LICENSEE and NEXTEL SOUTH CORP.

ATTACHMENT B – M/A-COM FREQUENCY RECONFIGURATION AGREEMENT (FRA) STATEMENT OF WORK REVISED SEPTEMBER 25, 2007

ATTACHMENT C – PASCO COUNTY REBANDING ISSUES DOCUMENT DATED OCTOBER 17, 2008 PREPARED BY TUSA CONSULTING SERVICES

ATTACHMENT D - PAYEE SETUP FORM

ATTACHMENT E - INCUMBENT ACKNOWLEDGEMENT

ATTACHMENT F - STANDARD WARRANTY FOR M/A-COM, INC. PRODUCTS

ATTACHMENT G- INSURANCE CERTIFICATE(S)

ATTACHMENT H – PERFORMANCE BOND

In case of conflict between the Agreement and the attachments, the terms of the Agreement shall prevail.

3. STATEMENT OF WORK.

Contractor will perform the services (the "Reconfiguration Services") described in the Statement of Work ("SOW") attached hereto as Attachment B in accordance with this Agreement, and agrees that radio work will be performed by a M/A-COM authorized service shop. All goods and services provided by Contractor will meet the minimum specifications defined in Customer's Rebanding Issues Document, attached hereto as Attachment C.

4. PERFORMANCE SCHEDULE.

Contractor will perform the Reconfiguration Services in accordance with the schedule set forth in Attachment B. Any changes to the SOW or the schedule may require the Incumbent to file a mutually agreeable change order (which might require the approval of Sprint Nextel and the TA). In any change order, the Parties will reasonably determine whether (i) the work should be postponed pending Sprint Nextel and TA review and approval, and (ii) the Incumbent will require negotiation support in its dealings with Sprint Nextel and/or the TA from Contractor concerning the change order.

5. AGREEMENT PRICE.

Contractor will perform the Reconfiguration Services at an estimated cost of $3,763,049.80 (the "Agreement Price"), all as further detailed in Attachment B and as may be amended from time to time as provided herein. Should the actual cost of work exceed the estimated cost in the SOW, then the Contractor shall submit a change order pursuant to Section 7 below. The Incumbent does not agree to reimburse Contractor for the Agreement Price or for any other expenses with respect to the Reconfiguration Services, unless otherwise specified in this Agreement or in the incorporated attachments. The Agreement Price and all applicable taxes and expenses will be paid to to M/A-COM by Sprint Nextel and Incumbent is not liable to pay Contractor these amounts. Incumbent will make all good faith efforts to help facilitate payment by submitting all necessary paperwork timely.

Except as otherwise provided herein, all payments to Contractor hereunder will be paid by Sprint Nextel pursuant to the payment procedures outlined in the FRA, Attachment A. Incumbent will not be responsible for any costs or charges resulting from late payments.

6. INVOICING AND PAYMENT.

A. Payment Terms and Conditions. Contractor understands that (i) payments for the Reconfiguration Services shall be made directly to Contractor by Sprint Nextel on behalf of the Incumbent and (ii) in order to receive payment from Sprint Nextel for the Reconfiguration Services to be provided under this Agreement, Contractor must comply with certain terms and conditions imposed by Sprint Nextel, the FCC and the transition administrator appointed pursuant to the Orders (the "Transition Administrator"). Contractor must complete a Payee Setup Form, attached hereto as Attachment D, to provide Sprint Nextel with the information necessary to enter Contractor's payment information into Sprint Nextel's payment system. In order to avoid any payment delays, Contractor shall submit its completed Payee Setup Form to Sprint Nextel prior to commencing the Reconfiguration Services. Contractor's completed Payee Setup Form should be faxed to Sprint Nextel at **866.221.6990.** DO NOT send the Payee Setup Form to Sprint Nextel by mail. Contractors should allow ten (10) days after submitting its completed Payee Setup Form before beginning to submit invoices.

B. Invoicing. Contractor must fax its invoices to Sprint Nextel at **866.221.6990.** DO NOT send invoices to Sprint Nextel by mail. Before an invoice will be paid, Sprint Nextel requires a confirmation from Incumbent (in the form of an "Incumbent Acknowledgement" attached hereto as Attachment E) that Contractor has delivered and/or performed the goods and/or services listed on the invoice and/or has achieved any required contractual milestones covered by the invoice. At the same time Contractor faxes an invoice to Sprint Nextel, Contractor also must submit a copy of the invoice to Incumbent c/o Pasco County Sheriff's Office, at 8700 Citizen Drive, New Port Richey, FL 34654 so that Incumbent will be able to review any invoiced goods and/or services in order to confirm their delivery and/or performance and any invoiced milestones in order to confirm their achievement and provide the required Incumbent Acknowledgement both to Sprint Nextel and to Contractor. Within ten (10) business days of receipt of Contractor's invoice, Incumbent shall either (i) issue the Incumbent Acknowledgement or (ii) if Incumbent determines that any invoiced goods and/or services have not been delivered and/or performed or that any invoiced milestones have not been achieved as required by this Agreement, Incumbent will notify Contractor in writing of the reasons for that determination.

C. Invoices. In order for invoices to be approved for payment by Sprint Nextel and paid, Contractor's invoices must include the following information:

- Contractor's name (must match the name submitted on the Payee Setup Form submitted by Contractor to Sprint Nextel)
- Contractor's "remit to" address

- Contractor's representative's name and contact information (for questions about the invoice)
- Incumbent's name
- Deal Number (to be provided by Sprint Nextel)
- A detailed list of goods and/or services or milestones for which Contractor is requesting payment (broken out by line item) as well as the total sum
- Applicable sales tax
- Invoice date
- Invoice number

D. Payment. Within thirty (30) days after the later of Sprint Nextel's receipt of (i) Contractor's invoice and (ii) the related Incumbent Acknowledgement, Sprint Nextel will pay the invoice on behalf of Incumbent, assuming that Contractor has complied with all applicable terms and conditions of payment imposed by Sprint Nextel, the FCC and the Transition Administrator.

E. Incumbent Liability for Failure of Payment. If Sprint Nextel fails to pay Contractor, Incumbent shall not be liable to pay Contractor the Agreement Price or applicable taxes. Notwithstanding the above, if Sprint Nextel pays any portion of this amount to Incumbent rather than to Contractor, Incumbent will immediately forward the payment to Contractor. Contractor agrees to accept direct payments from Sprint Nextel and agrees to apply these direct payments from Sprint Nextel to the Agreement Price.

F. Sprint Nextel Letter of Credit. Sprint Nextel has obtained an irrevocable letter of credit that assures that funds will be available to fund the 800 MHz band reconfiguration required by the Orders (the "Letter of Credit"). The Transition Administrator may issue draw certificates to the trustee administering the Letter of Credit (the "Trustee") for payment of reconfiguration costs if Sprint Nextel defaults on its obligation under the Orders to pay Incumbent's reconfiguration costs. Contractor agrees to look solely to the Letter of Credit as security for payment of any amounts not paid by Sprint Nextel when due under this Agreement and hereby waives its rights of lien, and agrees not to file any liens, arising out of the performance of the Reconfiguration Services against Incumbent's premises or any property belonging to Incumbent. If Sprint Nextel defaults on its payment obligations to the Contractor, and the Incumbent has provided the required Incumbent Acknowledgement to Sprint Nextel, then the Incumbent agrees to cooperate with the Contractor in its attempts to

draw down on the Letter of Credit, except that for purposes hereof the term cooperate shall not be defined to mean that Incumbent must join or participate in as a party in a lawsuit by Contractor against Sprint Nextel. Incumbent's obligation shall survive termination of this Agreement for one (1) year from the date of termination. Nothing contained in this section shall be deemed to limit any other remedies available to Contractor at law or equity, including, without limitation, Contractor's right at its sole option to suspend its performance of the Reconfiguration Services until it has received all payments then due or to terminate this Agreement in accordance with Section 18 or 19 hereof.

G. Audit. The Order provides that after the reconfiguration work is completed, the TA will perform an audit of Incumbent's records and "true up" procedure, whereby the reconfiguration work actually performed will be examined relative to the reconfiguration work described in the Incumbent's cost estimate, and any payment adjustments will be calculated and made. During this true up procedure, Contractor and Incumbent will work together in good faith and will act reasonably in order for Incumbent to accurately account for the invoices from and payments to Contractor. If necessary, the Parties will execute a change order to conform the scope of the actual reconfigured work performed to the scope of the contracted reconfigured work; this change order may result in an increase or decrease to the Agreement Price.

7. CHANGE ORDERS.

Incumbent reserves the right, upon reasonable notice of five (5) business days to Contractor, to make changes in the SOW at any time or in the time or place of performance of the Reconfiguration Services. If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this Agreement, the Incumbent Contracting Officer shall make an equitable adjustment in the Agreement Price, the performance schedule, or both. Any such adjustment in the Agreement Price or performance schedule shall be mutually satisfactory to Incumbent, Contractor, Sprint Nextel and will require approval by the Transition Administrator. Any claim by Contractor for an adjustment shall be deemed waived unless written notice of a claim is submitted to the Incumbent Contracting Officer within thirty (30) days following Contractor's receipt of notice of the change. Price increases and/or extensions of time shall not be binding upon Incumbent unless evidenced by a modification to this Agreement signed by the Parties hereto in accordance with the TA's procedures and Section 33 herein. Notwithstanding anything to the contrary herein contained, Contractor will not be required to accomplish the agreed upon changes until a mutually agreed upon change order approved in writing by Sprint Nextel is received by the Contractor. Contractor will not, however, delay correction of a total failure of the existing system that eliminates all radio communication capabilities or a critical failure that diminishes radio communication capabilities that the Incumbent considers would cause a significant public safety risk

while the change order is being negotiated and approved by Sprint Nextel and the TA, or if such failure is caused by Contractor's negligence or willful misconduct.

8. ADMINISTRATION.

A. Contractor Project Manager. Contractor shall appoint a project manager (the "Contractor Project Manager") who will provide oversight of Contractor activities conducted hereunder, who will be the principal point of contact person concerning Contractor's performance under this Agreement, and with whom the Incumbent's Project Manager shall work for the duration of this Agreement. Contractor shall notify Incumbent's Project Manager, in writing, when there is a new Contractor Project Manager assigned to this Agreement. The Contractor Project Manager's information is:

Contractor Project Manager: Helen Moeller
Address: 221 Jefferson Ridge Parkway, Lynchburg, VA 24501
Phone: (434) 455-9354 Fax: e-mail: moellerhe@tycoelectronics.com

B. Contractor Contracting Officer. For the purposes of this Agreement, "Contractor Contracting Officer" means the person to whom signature authority has been delegated in writing. This term includes, except as otherwise provided in this Agreement, an authorized representative of Contractor Contracting Officer acting within the limits of his/her authority.

C. Incumbent Project Manager. Incumbent shall appoint a project manager (the "Incumbent Project Manager") who will provide oversight of the activities conducted hereunder and will be the primary contact person with whom Contractor's Project Manager shall work for the duration of this Agreement. Incumbent shall notify Contractor's Project Manager, in writing, when there is a new Incumbent Project Manager assigned to this Agreement. The Incumbent Project Manager's information is:

Incumbent Project Manager: Joseph P. Sekula, Pasco County Sheriff's Office
Address: 8700 Citizen Drive, New Port Richey, FL 34654
Phone: (813) 235-6075 Fax: (813) 235-6050 E-mail: jsekula@pascosheriff.org

D. Incumbent Contract Administrator. For the purposes of this Agreement, "Incumbent Contract Administrator" shall mean that person designated by the Incumbent Contracting Officer to administer this Agreement on behalf of Incumbent.

E. Incumbent Contracting Officer. For the purposes of this Agreement, "Incumbent Contracting Officer" shall mean the Pasco County Sheriff, or the person to whom signature authority has been delegated in writing. This term includes, except as

otherwise provided in this Agreement, an authorized representative of the Incumbent Contracting Officer acting within the limits of his/her authority. For purposes of this Agreement, and with reference to the Intergovernmental Agreement defined above, M/A-COM and Incumbent agree that the Pasco County Sheriff's may approve and execute Incumbent Acknowledgments, Change Orders, and all other documents, instruments, agreements, and writings required hereunder on behalf of Incumbent.

9. SUBCONTRACTORS.

No subcontractor may perform any work under this Agreement without the prior written approval of the Incumbent, which approval shall not be unreasonably withheld, conditioned, or delayed. All subcontractors performing work under this agreement shall be identified by Contractor along with the experience and qualifications to perform the tasks subcontracted. In no event shall the existence of a subcontract release or reduce the liability of Contractor to Incumbent for any breach in the performance of Contractor's duties. Contractor shall be liable for any loss or damage to Incumbent, including but not limited to personal injury, physical loss, harassment of Incumbent employees, or violations of the Infringement and Confidentiality sections of this Agreement occasioned by the acts or omissions of Contractor's subcontractors, their agents or employees. Section 26 (Publicity) of this Agreement shall apply to all subcontractors.

10. EXCUSABLE DELAYS.

A. No party shall be liable for delays in delivery or failure to perform due directly or indirectly to an Excusable Delay, which is defined as: (1) Force Majeure or causes beyond Contractor's reasonable control, (2) Acts of God, acts (including failure to act) of any governmental authority (de jure or de facto), wars (declared or undeclared), riots, revolutions, strikes or other labor disputes, fires, floods, sabotage, nuclear incidents, earthquakes, storms, epidemics, (3) Contractor's inability to timely obtain necessary materials, items, components or services from suppliers who are affected by the foregoing circumstances. The foregoing shall apply even though any of such causes exists at the time of signature of the Agreement by Contractor or occurs after delays in Contractor's performance of its obligations due to other reasons.

B. In the event of any delay or failure excused by this Section, Contractor shall as soon as practical notify Incumbent and shall at the same time, or at the earliest practical date after such notice, specify the revised delivery and performance dates. In the event of such delay, the time of delivery or of performance shall be extended for a reasonable time period to compensate for the time lost by Contractor by reason of the delay. If Incumbent (including its other contractors), Nextel or the TA delays the performance schedule, the Parties will execute a change order to extend the performance schedule.

11. ACCESS TO WORK SITES.

Incumbent will provide access to the Incumbent's sites as reasonably requested by Contractor or Contractor's subcontractor so that it may perform its duties in accordance with the SOW. Contractor acknowledges that security rules and regulations will be in effect for the sites, as developed and promulgated by Incumbent from time to time. Contractor agrees, for itself, its employees, subcontractors, Contractors, visitors, and invitees, to comply strictly with all rules and regulations of Incumbent, of which it has been given prior written notice, in effect from time to time with regard to access to and activities on Incumbent's sites. Incumbent will not be responsible for any cost associated with obtaining proper site access.

12. GRATUITIES.

Contractor and its employees shall not, with the intent to influence the recipients in the conduct of their official duties, extend any gratuity or special favor of monetary value to any officer, employee or other representative of Incumbent.

13. LIENS.

Contractor shall at all times promptly pay for all services, materials, equipment, and labor used or furnished by Contractor under this Agreement and shall, to the fullest extent allowed by law, at its expense, keep Incumbent's premises and all property belonging to Incumbent free and clear of any and all liens and rights of lien arising out of services, labor, equipment or materials furnished by Contractor or its employees, suppliers, Contractors, or subcontractors under this Agreement. If Contractor fails to release and discharge any lien or threatened lien against Incumbent within five (5) working days after receipt of written notice from Incumbent to remove such claim of lien, Incumbent may, at its option, discharge or release the claim of lien or otherwise deal with the lien claimant, and Contractor shall pay Incumbent any and all costs and expenses of Incumbent in so doing, including reasonable attorneys' fees incurred by Incumbent (as allowed by law).

14. RISK OF LOSS.

Title and risk of loss of any replacement equipment to be provided by Contractor as part of the Reconfiguration Services shall pass to Incumbent upon delivery to Incumbent. Contractor shall comply with Sprint Nextel's requirements relating to all replaced equipment as set forth in Sprint Nextel's document entitled *Equipment Returns to Sprint-Nextel, Abilene & All Freight Shipments* (dated as of May 30, 2008).

15. ACCEPTANCE.

Final acceptance of the Reconfiguration Services shall occur upon satisfactory performance of the Reconfiguration Services in accordance with the SOW and

successful completion of any acceptance testing provided in the SOW. Incumbent and Contractor will memorialize final acceptance of the Reconfiguration Services by promptly executing a final acceptance certificate.

16. WARRANTIES.

Contractor warrants that all products and services it provides under this Agreement shall be warranted to Incumbent in accordance with the terms and conditions set forth in the document attached hereto as Attachment F. Contractor is not providing any new or additional warranties or extensions concerning Incumbent owned equipment that is modified by the Reconfiguration Services. However, if Incumbent owned equipment is covered under a written warranty or a maintenance contract between Incumbent and Contractor that was entered into prior to the Effective Date, this Agreement does not adversely affect those pre-existing rights of Incumbent. Notwithstanding any term or provision herein to the contrary (or any attachments to this Agreement) for one (1) year from the date of System Acceptance, Contractor warrants that the Reconfiguration Services were performed in a good and workmanlike manner.

THE WARRANTY SET FORTH IN THIS SECTION 16 IS CONTRACTOR'S SOLE WARRANTY UNDER THIS AGREEMENT AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES WHETHER WRITTEN OR ORAL, EXPRESSED OR IMPLIED, STATUTORY OR OTHERWISE INCLUDING, BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY CLAIM UNDER THIS WARRANTY MUST BE FILED WITHIN THE PERIOD SPECIFIED IN ATTACHMENT F.

17. DEFAULT.

If Contractor fails to perform a material obligation under this Agreement, Incumbent may consider Contractor to be in default (unless an Excusable Delay as defined in Section 10 causes the failure) and may assert a default claim by giving Contractor written notice of default. Contractor will have thirty (30) days after receipt of the notice of default either to cure the default or, if the default is not curable within thirty (30) days, to provide a written cure plan. Contractor will begin implementing the cure plan immediately after receipt of notice by Incumbent that it approves the plan. If Contractor fails to cure the default, unless otherwise agreed in writing, Incumbent may terminate this Agreement for default. In the event of termination for default, Incumbent may acquire the Reconfiguration Services elsewhere on terms and conditions or in such manner as Incumbent may deem appropriate, and Contractor shall be liable to Incumbent for any excess cost or other expense incurred by Incumbent in such acquisition. The rights and remedies of Incumbent under this section are in addition to other rights and remedies provided by law or this Agreement.

18. AGREEMENT TERMINATION.

A. Termination Without Cause. Intentionally deleted.

B. Cause Termination for Default or Breach. A default or breach may be declared with or without termination. This Agreement may be terminated by either party upon written notice of default or breach to the other party as follows:

1. If Contractor substantially fails to provide or satisfactorily perform any of the material conditions, work, deliverables, or services called for by this Agreement within the time requirements specified in this Agreement or within any granted extension of those time requirements; or

2. If the other party becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of the bankruptcy court; or

3. If the Incumbent materially breaches any material duty under this Agreement including, without limitation, its duty to issue the Incumbent Acknowledgements in a timely manner; or

4. If Sprint Nextel defaults under the Letter of Credit or becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of the bankruptcy court.

C. Contractor MAY NOT at any time assert a default against Incumbent due to Sprint Nextel's failure to pay the Agreement Price or applicable taxes.

D. If a Party fails to perform a material obligation under this Agreement, the other Party to whom performance is due may consider the non-performing Party to be in default (unless an Excusable Delay causes the failure) and may assert a default claim by giving the non-performing Party a written and detailed notice of default. The defaulting Party will have thirty (30) business days after receipt of the notice of default to either cure the default or, if the default is not curable within thirty (30) days, to provide a written cure plan. The defaulting Party will begin implementing the cure plan immediately after receipt of notice by the other Party that it approves the cure plan. In the event of termination for default, the defaulting Party will promptly return to the non-defaulting Party any of its confidential information.

E. Winding Up Affairs Upon Termination. In the event of termination of this Agreement for any reason, the Parties agree that the provisions of this paragraph survive termination:

1. The Parties shall account for and properly present to each other all claims for amounts due, charges, costs, fees and expenses and pay those which are undisputed and otherwise not subject to set off under this Agreement. Neither party may withhold performance of winding up provisions solely based on nonpayment of fees or expenses accrued up to the time of termination;

2. Contractor shall satisfactorily complete work in progress at the agreed rate (or a pro rata basis if necessary) if so requested by the Incumbent;

3. Contractor shall promptly deliver into Incumbent's possession all proprietary information in accordance with Section 24, Confidentiality of this Agreement.

F. Unless otherwise specified, termination for cause shall not be effective until the later of (i) thirty (30) calendar days after a party has served written notice of default, or (ii) all tasks pursuant to 18(E) herein have not been completed by the timeframe agreed upon, or (iii) if without cause upon the receipt of notice by the other party or by the date specified in such notice.

19. REMEDIES.

A. In the event of a material breach of this Agreement by Contractor which shall continue for thirty (30) or more days after written notice of such breach (including a reasonably detailed statement of the nature of such breach) shall have been given to Contractor by Incumbent, Incumbent shall be entitled to avail itself cumulatively of any and all remedies available at law or in equity (provided such remedies are not otherwise limited under the terms of this Agreement) and either: (1) suspend performance of Sprint Nextel's payment obligations under the Agreement for as long as the breach continues uncorrected by withholding Incumbent Acknowledgement or submission to Sprint Nextel of invoices received for work completed or work in breach; or (2) terminate this Agreement by written notice to Contractor if the breach remains uncorrected.

B. In the event of: (1) any failure by Incumbent to provide the Incumbent Acknowledgement when due or, (2) any failure of Sprint Nextel for thirty (30) or more days to make any payment when due, or (3) any other material breach of this Agreement by Incumbent which shall continue thirty (30) or more days after written notice of such breach (including a reasonably detailed statement of the nature of such breach) shall have been given to Incumbent by Contractor, Contractor shall be entitled to avail itself cumulatively of any and all remedies available at law or in equity (provided such remedies are not otherwise limited under the terms of this Agreement) and either: (1) suspend performance of its obligations under this Agreement for as long as the breach remains uncorrected;

or (2) terminate this Agreement by written notice to Incumbent if the breach remains uncorrected.

20. **LIMITATION OF LIABILITY.**

A. Except for M/A-COM's liability to third parties for its willful misconduct or negligent acts or omissions as more particularly described in Section 21 herein (Indemnification), the total liability of M/A-COM, including its subcontractors or suppliers, for all claims of any kind for any loss or damage, whether in contract, warranty, tort (including negligence or infringement), strict liability or otherwise, arising out of, connected with, or resulting from the performance or non-performance of this Agreement or the manufacture, sale, delivery, installation, technical direction of installation, resale, repair, replacement, licensing or use of any equipment, software or the furnishing of any services, shall not exceed the Agreement Price to be paid by Sprint-Nextel on behalf of the Incumbent pursuant to this Agreement.

B. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE OR INFRINGEMENT), STRICT LIABILITY OR OTHERWISE, SHALL M/A-COM, OR ITS SUBCONTRACTORS OR SUPPLIERS, BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR EXEMPLARY DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUES, LOSS OF USE OF THE EQUIPMENT OR ANY OTHER HARDWARE, COST OF CAPITAL, COST OF SUBSTITUTE GOODS, FACILITIES, SERVICES OR DOWNTIME COSTS.

C. The provisions of this Section 20, LIMITATION OF LIABILITY, shall apply notwithstanding any other provisions of this Agreement and any other agreement.

D. The provisions if this Section 20, LIMITATION OF LIABILITY, shall survive the expiration or termination of this Agreement.

21. **INDEMNIFICATION.**

A. Incumbent acknowledges that Contractor may cause damage to equipment that is part of Incumbent's system when performing the reconfiguration services, and that such damage may occur in the absence of negligence by any party. Contractor shall be responsible for damage caused by Contractor's negligence or intentional acts or omission, in which case Contractor will repair or replace any damaged system equipment or refund its fair market value. The Contractor will not be responsible for damage from normal wear and tear to the equipment, or for any damages caused to old equipment, except for damage caused by the

Contractor's negligence or intentional acts or omission as provided under this paragraph. This provision does not diminish any rights Incumbent may have under any pre-existing Contractor warranty, maintenance, or other agreement.

B. Contractor shall be responsible for and agrees to indemnify Incumbent and hold Incumbent harmless from and against all third party claims, demands and causes of action for direct damages (including reasonable legal fees where allowed by law) for personal injuries or damage to tangible property, including existing equipment and system, to the extent directly resulting from the willful misconduct or negligent acts or omissions of Contractor, Contractor's officers, agents, employees, or subcontractors. Incumbent agrees to notify Contractor as soon as practical of any third party claim, demand or cause of action for which Incumbent will request indemnification from Contractor. Incumbent will provide Contractor with the necessary information and assistance to defend any third party claim, demand or cause of action.

C. To the extent permitted by law, Incumbent shall be responsible for and agrees to indemnify Contractor and hold Contractor harmless from and against all third party claims, demands and causes of action for direct damages (including reasonable legal fees) for personal injuries or damage to tangible property to the extent directly resulting from the willful misconduct or negligent acts or omissions of Incumbent, Incumbent's officers, officials, agents, employees, or subcontractors to the extent permitted by law. Contractor agrees to notify Incumbent as soon as practical of any third party claim, demand or cause of action for which Contractor will request indemnification from Incumbent. Contractor will provide Incumbent with the necessary information and assistance to defend such claim, demand, or cause of action. This provision in no way is a waiver of the Incumbent's Sovereign Immunity under Florida Statute § 768.28 (2007).

D. The provisions of this Section 21, INDEMNIFICATION shall survive the expiration or termination of this Agreement.

22. INSURANCE

22.1 Insurance of the Contractor

22.1.1 During the life of this Agreement, the Contractor shall provide, pay for, and maintain insurance of the types and in the amounts described herein. All such insurance shall be provided by responsible companies with A.M. Best ratings of A-, Class 8 or better, authorized to transact business in the State of Florida, and which are satisfactory to the Incumbent. Within ten (10) business days of the approval and execution of the Agreement by the Incumbent, the Contractor shall provide to the Incumbent evidence of insurance coverage of the types, and in the amounts, required

hereunder by submitting executed Certificates of Insurance (the "Certificates"), the preferred form of which is found at Attachment G. Each Certificate shall set forth the original manual signature of the authorized representative of the insurance company/companies identified therein and shall have attached thereto proof that said representative is authorized to execute the same. In addition, upon sixty (60) days prior written notice and only once during the term of this Agreement, the Contractor shall make available for inspection by Incumbent at Tyco Electronics Corporation offices in Berwyn, Pennsylvania, true and exact copies of all required policies and endorsements. Should a claim arise under Section 21, the Contractor also agrees to provide the Incumbent a certified copy of all required policies and endorsements upon the request of the Incumbent.

22.1.2 All policies of insurance mandated by this Agreement shall require that the insurer endeavor to give the Incumbent thirty (30) days written notice of any cancellation, intent not to renew, or reduction in coverage (provided that notice will only be given in changes to aggregate policy limits if such change is significant to the amounts of coverage shown on the certificate); and ten (10) days written notice of any non-payment of premium. Such notice shall be delivered by First-Class U.S. Mail to: Director, Risk Management Division – Pasco County, West Pasco Government Center-Suite 330, 7530 Little Road, New Port Richey, Florida, 34654-5598. In the event of any reduction in the aggregate limit of any policy, the Contractor shall immediately restore such limit to the amount required herein.

22.1.3 All insurance coverage provided by the Contractor shall be primary for acts of negligence caused solely by Contractor or its subcontractors and to any insurance or self insurance program of the Incumbent that is applicable to the work provided for in this Agreement.

22.1.4 Intentionally deleted.

22.1.5 No work for the Incumbent shall commence, nor occupancy by the Contractor of any of its property take place, until the required bonds (where applicable), Certificates, and copies of the associated policies, if requested, are received by the Incumbent, even if the contract time has commenced.

22.1.6 The insurance coverage and limits required of the Contractor under the contract documents are designed to meet the minimum requirements of the Incumbent. They are not designed as a recommended insurance program for the Contractor. Contractor shall be responsible for the sufficiency of its own insurance program. Should the Contractor have any questions concerning its exposures to loss under the contract documents or the insurance coverage needed therefore, it should seek professional assistance.

22.1.7 If the insurance coverage initially provided by the Contractor is to expire prior to completion of the work, renewal Certificates shall be furnished to the Incumbent as soon as reasonably available following expiration of current coverage.

22.1.8 Should the Contractor fail to maintain any of the insurance coverage required by the contract documents, the Incumbent may, at its option, either terminate this Agreement for default, or procure and pay for such coverage, charging the Contractor for, and deducting the costs of, the same from payments due the Contractor. A decision by the Incumbent to procure and pay for such insurance coverage shall not operate as a waiver of any of its rights under the contract documents.

22.1.9 All liability insurance policies obtained by the Contractor to meet the requirements of the contract documents, other than the worker's compensation and employer's liability policy, shall provide that the Incumbent, its employees and agents, shall be "additional insureds" under the policy and shall also incorporate a severability of interest provision. All insurance coverage provided under this Section shall apply to all the activities of the Contractor under the contract documents without regard for the location of such activity.

22.1.10 Coverage. Amounts and type of insurance shall conform to the following minimum requirements with the use of current insurance service office forms and endorsements or their equivalent.

22.1.10.1 Worker's Compensation and Employer's Liability Insurance. The Contractor shall maintain coverage for all employees engaged in the work, in accordance with the laws of the State of Florida. The Contractor also agrees to waive its right of subrogation as part of this coverage. The amount of each insurance shall not be less than:

a.	Workers' Compensation	-	Florida Statutory Requirements
b.	Employer's Liability		$100,000.00 Limit Each Accident $500,000.00 Limit Disease Aggregate $100,000.00 Limit Disease Each Employee

22.1.10.2 Commercial General Liability Insurance. Coverage shall include, but not limited to, personal and advertising injury coverage, contractual coverage for this Agreement, including any hold harmless and/or indemnification Agreement(s), coverage for independent contractors, and broad form property damage coverage. Limits of coverage shall not be less than the following for bodily injury, property damage and personal injury, combined single limits:

General Aggregate	$2,000,000.00
Products – Completed Operations Aggregate	$2,000,000.00
Personal and Advertising Injury	$ 500,000.00
Each Occurrence	$2,000,000.00
Fire Damage (Any One Fire)	$ 50,000.00
Specific Contract Aggregate Limits	$ (*same as above*)

a. The aggregate limits shall be separately applicable through the use of the endorsement form provided by the Incumbent or its equivalent according to the risk management division of the Incumbent.

b. Intentionally deleted.

22.1.10.3 Business Automobile Liability Insurance. Coverage shall be maintained by the Contractor as to ownership, maintenance, and use of all of its owned, non-owned, leased or hired vehicles with limits of not less than:

a. Bodily Injury & Property Damage Liability:

$1,000,000.00 Combined Single Limit Each Accident

22.1.10.4 All Risk Coverage. For purposes of this Agreement, **Builder's Risk** coverage is ___/is not __X__ required; **Installation Floater** coverage is ___/is not X required. If either or both are required, the Contractor shall provide said coverage, which shall include the following minimum requirements:

a. All risk coverage shall be issued by insurance company(s) approved by the

State of Florida Department of Insurance and acceptable to the Incumbent. All coverage and endorsements must be on forms acceptable to the Incumbent. The Contractor shall pay any and all premiums for this insurance, with any deductibles being the sole responsibility of the Contractor. If both builder's risk and installation floater have been specified, no more than one deductible per occurrence shall apply. Maximum deductible per occurrence for this project:

$_____n/a_____.

b. Limit of coverage shall be 100% of the completed value of any building(s) or structure(s), or 100% of the value of the equipment to be installed, as appropriate; and installation floater coverage shall also provide for coverage of the installed equipment, including labor and materials, prior to final completion of the project.

c. Waiver of Occupancy Clause or Warranty: Policy must be specifically endorsed to eliminate any "occupancy clause" or similar warranty or representation that the building(s) or structure(s) will not be occupied.

22.1.11 Certificates of Insurance. Certificates evincing the insurance coverage specified in paragraphs 22.1.10.1 through 22.1.10.3 inclusive, and in paragraph 22.1.10.4, when required, shall be filed with the Incumbent and a copy sent to the Pasco Sheriff's Office within ten (10) business days of the execution of the Agreement by the Incumbent. The required Certificates shall name the types of policies provided, and shall refer specifically to this Agreement.

23. PATENTS, TRADEMARKS, INFORMATION.

A. Nothing in this Agreement shall be construed as;

(i) A warranty or representation by Contractor that any product of the services provided under this Agreement is or will be free from infringement of patents of third parties; or

(ii) Conferring a right to Incumbent to use in advertising, publicity or otherwise any trademark or trade name of Contractor; or

(iii) Granting to Incumbent by implication, estoppel, or otherwise any licenses or rights under patents of Contractor.

B. Contractor assumes no responsibilities whatsoever with respect to the use by Incumbent or any third party of any information obtained by Incumbent or third party under this Agreement with respect to any use, sale or other disposition by Incumbent or its clients or other transferees of any products incorporating or made by use of the information obtained under this Agreement.

24. DISPUTES.

Except as otherwise provided by the Order, if a claim, dispute, or other matter in question arises out of this Agreement, which the Parties are unable to resolve through mutual, good faith, negotiations, it shall first be mediated by a mutually selected mediator through non-binding mediation. The Parties will not unreasonably withhold their consent to the selection of a mediator and will share in the cost of the mediation

equally; may postpone mediation until they have completed some specified but limited discovery about the dispute; and may replace mediation with another form of nonbinding alternative dispute resolution ("ADR"). If such claim, dispute, or other matter cannot be resolved by non-binding mediation within sixty (60) days of submittal to the mediator, each party shall be free to pursue such legal remedies as the party believes it is entitled to under the terms of this Agreement, including submission to a court of competent jurisdiction in the state in which the system is installed. The use of ADR procedures will not be considered under the doctrine of laches, waiver, or estoppels to affect adversely the rights of either Party. Either Party may resort to the judicial proceedings described in this section before the expiration of the sixty (60) day ADR period if good faith efforts to resolve the dispute under these procedures have been unsuccessful; or interim relief from the court is necessary to prevent serious and irreparable injury to the Party.

25. CONFIDENTIALITY.

A. During the term of this Agreement, it is anticipated that one party (hereafter the "Disclosing Party") may disclose to the other party (hereafter the "Receiving Party") information, which the Disclosing Party considers proprietary and confidential. Accordingly, and subject to applicable federal, state, and local law, with respect to any specification, drawings, sketches, models, samples, tools, technical information, confidential business information or data, in written or other tangible form which: (1) has been designated in writing by the Disclosing Party as confidential or proprietary, or (2) is of the type that the Receiving Party customarily treats as confidential or proprietary, and which is furnished by the Disclosing Party to the Receiving party in contemplation of or under this Agreement (hereinafter "Information"), the Receiving Party shall treat such Information, for a period of three (3) years after the Effective Date of this Agreement, as confidential information with the same degree of care as the Receiving Party affords to confidential information of its own of a similar nature and shall not reproduce any such Information, in whole or in part, except as specifically authorized in writing by the Disclosing Party.

B. The provisions of the preceding subsection shall not apply to any Information which:

(1) is or shall become publicly available without breach of this Section Confidentiality on the part of the Receiving Party;

(2) is already known by the Receiving Party prior to receipt from the Disclosing Party;

(3) is independently developed by the Receiving Party;

(4) is rightfully obtained by the Receiving Party from third parties without restriction; or

(5) is required to be disclosed by appropriate governmental or judicial order provided that Receiving Party gives Disclosing Party prior written notice of such order and assists Disclosing Party in taking reasonable actions to restrict such order.

C. The Parties acknowledge that this contract is subject to Florida Statutes Chapter 119 and nothing in this Agreement shall be deemed to restrict, impair, or burden the Incumbent's and/or its Agents' compliance with the Florida Public Records Law. In accordance therewith, the Parties agree that absent a valid exemption, including status as a "trade secret," Incumbent and its Agents shall allow public access to all documents, papers, letters, or other material subject to Chapter 119 that are made or received by the Incumbent in conjunction with this Agreement. The Incumbent is hereby notified that the SOW attached hereto and information contained therein is a "trade secret" or confidential and proprietary information of the Contractor.

D. The provisions of this Section on Confidentiality shall survive the expiration or termination of this Agreement.

26. PUBLICITY.

The selection of Contractor to perform the Reconfiguration Services pursuant to this Agreement is not in any way an endorsement of Contractor or Contractor's Reconfiguration Services by Incumbent and shall not be so construed by Contractor in any advertising or other publicity materials. Contractor agrees to submit to Incumbent, all advertising, sales promotion, and other publicity materials relating to this Agreement and the Reconfiguration Services furnished by Contractor wherein Incumbent's name is mentioned, language is used, or Internet links are provided from which the connection of Incumbent's name therewith may, in Incumbent's judgment, be inferred or implied. Contractor further agrees not to publish or use such advertising, sales promotion materials, publicity or the like through print, voice, the World Wide Web, and other communication media in existence or hereinafter developed without the express written consent of Incumbent prior to such use.

27. INDEPENDENT CONTRACTOR.

Contractor is associated with the Incumbent only for the purposes and to the extent specified in this Agreement, and in respect to performance of the contracted services pursuant to this Agreement. Contractor is and shall be an independent contractor and, subject only to the terms of this Agreement, shall have the sole right to supervise, manage, operate, control, and direct performance of the details incident to its duties

under this Agreement. Nothing contained in this Agreement shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the Incumbent whatsoever with respect to the indebtedness, liabilities, and obligations of Contractor or any other party.

28. RIGHT OF INSPECTION.

If required by the Order or subject to Section 11 herein (Site Access), and subject to Section 25 herein (Confidentiality), Contractor shall provide right of access to its facilities to Incumbent, or any of Incumbent's officers, or to any other authorized agent or official of the State of Florida, at all reasonable times, in order to monitor and evaluate performance, compliance, and/or quality assurance under this Agreement.

29. LICENSING STANDARDS.

Contractor shall comply with all applicable local, state, and federal licensing, accreditation and registration requirements and standards necessary in the performance of this Agreement.

30. COVENANT AGAINST CONTINGENT FEES.

Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon any agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or a bona fide established commercial representative of Contractor. In the event Contractor breaches this section, Incumbent shall have the right to either annul this Agreement without liability to Incumbent, or, in Incumbent's discretion, deduct from payments due to Contractor, or otherwise recover from Contractor, the full amount of such commission, percentage, brokerage, or contingent fee.

31. PROHIBITED AGREEMENTS.

Contractor has not entered, and agrees not to enter, into any agreement or arrangement with Incumbent: (i) pursuant to which Contractor agrees, in exchange or as consideration for Incumbent's selection of Contractor to perform the Reconfiguration Services, to pay or convey to Incumbent or any third party a kickback or anything else of value or to provide to Incumbent any services or equipment not required as part of or directly related to the Reconfiguration Services at non-commercial rates or at no charge; or (ii) which includes artificially inflated prices or, Contractor knows or has reason to know, is based upon a false statement of work, an inaccurate inventory count or an incorrect description of the Reconfiguration Services, including, but not limited to, the equipment or locations to be reconfigured.

32. ASSIGNMENT; SUCCESSORS AND ASSIGNS.

This Agreement shall not be assigned by either Party without the written consent of the other Party, which shall not be unreasonably withheld or delayed. Notwithstanding the above, M/A-COM, Inc. may assign this Agreement, without consent, (a) in whole or in part, to an affiliate or subsidiary or (b) in the event of a change of controlling ownership interest (either directly or indirectly) in M/A-COM or in the event of merger, recapitalization, consolidation, other business combination or sale of all or substantially all of the assets of M/A-COM. M/A-COM, Inc. shall provide the Incumbent with written notice of an assignment under subsections (a) or (b) above within thirty (30) days of its occurrence.

33. AUTHORITY FOR MODIFICATIONS AND AMENDMENTS.

No modification, amendment, alteration, addition, or waiver of any section or condition of this Agreement or the SOW shall be effective or binding unless it is in writing and signed by Incumbent and Contractor Contracting Officers. Only the Incumbent Contracting Officer shall have the express, implied, or apparent authority to alter, amend, modify, add, or waive any section or condition of this Agreement or the SOW on behalf of Incumbent. Modifications and amendments will be subject to the procedures and policies of the Order and the TA, and may be subject to approval by the FCC, TA, and/or Sprint Nextel.

34. WAIVER.

Failure or delay by either party to exercise any right or power under this Agreement will not operate as a waiver of the right or power. For a waiver of a right or power to be effective, it must be in writing signed by the waiving party. An effective waiver of a right or power will not be construed as either a future or continuing waiver of that same right or power, or the waiver of any other right or power.

35. SEVERABILITY.

If a court of competent jurisdiction renders any provision of this Agreement (or portion of a provision) to be invalid or otherwise unenforceable, that provision or portion of the provision will be severed and the remainder of this Agreement will continue in full force and effect as if the invalid provision or portion of the provision were not part of this Agreement.

36. NON-EXCLUSIVE REMEDIES.

The remedies provided for in this Agreement shall not be exclusive but are in addition to all other remedies available under law.

37. HEADINGS AND SECTION REFERENCES.

The section headings in this Agreement are inserted only for convenience and are not to be construed as part of this Agreement or as a limitation of the scope of the particular section to which the heading refers.

38. THIRD PARTY BENEFICIARIES OF THE AGREEMENT.

Pasco County, FL, a political subdivision of the State of Florida and the City of Dade City, FL are intended third party beneficiaries of the terms and conditions of this Agreement.

39. ENTIRE AGREEMENT.

This Agreement together with the documents incorporated herein pursuant to Article 3, Incorporated Documents, constitute the entire understanding and agreement between Incumbent and Contractor concerning the subject matter hereof and any negotiations, prior discussions, representations, promises, understandings, proposals, agreements, warranties, course of dealing or trade usage not expressly contained or referenced herein shall not be binding on either party. CONTRACTOR DOES NOT ASSUME ANY OBLIGATIONS OR LIABILITIES IN CONNECTION WITH THE PROVISION OF THE SERVICES OTHER THAN THOSE EXPRESSLY STATED IN THIS AGREEMENT AND DOES NOT AUTHORIZE ANY PERSON(INCLUDING CONTRACTOR'S MANUFACTURER'S REPRESENTATIVES AND SALES AGENTS) TO ASSUME FOR CONTRACTOR ANY OTHER OBLIGATIONS OR LIABILITIES.

40. GOVERNING LAW AND VENUE.

The validity, performance and all matters relating to the interpretation and effect of this Agreement and any amendment thereto shall be governed by the laws of the State of Florida, excluding its rules with respect to conflict of laws. Incumbent consents to the personal jurisdiction of the state and federal courts in the State of Florida, which courts shall constitute the exclusive forum for the enforcement of this Agreement and the resolution of all Disputes related to the subject of this Agreement, whenever, wherever and however arising, whether at law in equity or otherwise and whether the Dispute involves any alleged breach of contract, violation of law or tort of any kind. Venue shall be in Pasco County, FL.

41. NOTICES.

Notices required to be given by either party to the other party must be in writing and either delivered in person or sent to the address shown below by certified mail, return receipt requested and postage prepaid (or by a recognized courier service, such as Federal Express, UPS, or DHL), or by facsimile with correct answerback received, and will be effective upon receipt:

Contractor

FCC Rebanding Project Manager
M/A-COM, Inc.
7022 TPC Drive Suite 500
Orlando, Fl. 32822

With copy to:

Senior Counsel
M/A-COM, Inc.
221 Jefferson Ridge Parkway
Lynchburg, VA 24501

And to:

Kevin P. Joyce, Esq.
Brown Rudnick LLP
One Financial Center
Boston, MA 02111

Incumbent

Pasco County Sheriff's Office
8700 Citizen Drive
New Port Richey, FL 34654

With copy to:

Pasco County Attorney's Office
West Pasco Government Center
7530 Little Road, Suite 340
New Port Richey, FL 34654

42. COMPLIANCE WITH APPLICABLE LAWS.

Each party will comply with all applicable federal, state, and local laws, regulations and rules concerning the performance of this Agreement or use of the System. Incumbent will obtain and comply with all required FCC licenses and authorizations.

43. PERFORMANCE BOND

Prior to commencing work hereunder, Contractor shall forward a performance bond in an amount equal to the Agreement Price, in substantially the form attached hereto as Attachment H, (the "Performance Bond"), which Performance Bond shall be held by Incumbent as security for Contractor's faithful performance of all of the covenants, conditions, and agreements of this Agreement. If Contractor defaults under this Agreement, Incumbent may proceed to notify the Surety (as defined under the Performance Bond) in accordance with the terms and conditions of the Performance Bond and Incumbent agrees to provide contemporaneously to Contractor copies of all notices to the Surety. Incumbent's failure to properly notify Contractor shall constitute a waiver of its rights under this Agreement regarding the Performance Bond. If the default is not cured within the time allowed under the grace and cure periods of this Agreement, and provided that Incumbent has complied with the provisions of the

Performance Bond and this Agreement, Incumbent may use, apply or retain all or part of the Performance Bond as provided under the Performance Bond.

Notwithstanding anything to the contrary herein contained, Contractor shall not be deemed in default of this Agreement as a result of the Contractor's election, at its sole option, to suspend its performance of the Reconfiguration Services until it has received all payments then due hereunder.

44. AUTHORITY TO EXECUTE AGREEMENT.

Each party represents to the other party that such party has obtained all necessary approvals, consents and authorizations to enter into this Agreement and to perform its duties under this Agreement; the person executing this Agreement on its behalf has the authority to do so and the Pasco County Sheriff's Office represents it has the authority and necessary approvals, consents and authorization to bind Pasco County, FL, a political subdivision of the State of Florida and the City of Dade City, FL, and upon execution and delivery of this Agreement by the Parties, it is a valid and binding contract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Agreement does not violate any bylaw, charter, regulation, law or any other governing authority of such party or Pasco County, FL, a political subdivision of the State of Florida and the City of Dade City, FL.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be signed and intend to be legally bound thereby.

INCUMBENT

PASCO COUNTY SHERIFF'S OFFICE, FLORIDA

By: _____

Name: Bob White

Title: Sheriff

Date: 2/24/09

WITNESS:

_____

Witness Name: Carol A. Lentz

CONTRACTOR

M/A-COM, Inc.

By: _____

Name: Charles N. Shaughnessy

Title: VP, Operations

Date: 2/6/09

WITNESS:

_____

Witness Name: Jodi Lee

Approved as to Form

By: _____

Date: 2/6/09

ATTACHMENT A –

FREQUENCY RECONFIGURATION AGREEMENT (FRA) dated March 21, 2008
between LICENSEE and NEXTEL SOUTH CORP.

Sprint
Together with NEXTEL

Sprint Nextel
2001 Edmund Halley Drive
Reston, VA 20191
Office: (703) 592-7622 Fax: (703) 433-3824

Leilani Hawthorne
Transaction Specialist

March 24, 2008

VIA FEDERAL EXPRESS

Pasco Sheriff's Office
8700 Citizen Dr
New Port Richey, FL 34654
Attn: Joe Sekula
(813) 996-6982

Enclosed please find a fully executed **Frequency Reconfiguration Agreement** dated **March 21, 2008**, between **Pasco County, the City of Dade, the Pasco County Sheriff's Office and Nextel South Corp.** for your records.

If you have questions during the course of the transaction, please contact me via email leilani.hawthorne@sprint.com @ (703) 592-7622. Thank you for your continued assistance and cooperation.

Sincerely,

Leilani Hawthorne

Leilani Hawthorne
Transaction Specialist

Enclosures

Alan S. Tilles
Shulman Rogers Gandal Pordy & Ecker, PA

Sprint
Together with NEXTEL

Sprint Nextel
2001 Edmund Halley Drive
Reston, VA 20191
Office: (703) 592-7622 Fax: (703) 433-3824

Leilani Hawthorne
Transaction Specialist

Third Party Vendor Name. Shulman Rogers Gandal Pordy & Ecker, P.A
Not-to-Exceed Amount $ 40,750.00

Incumbent Name PASCO, COUNTY OF, FL
Deal Number DL8904419264

You are receiving this letter because Sprint Nextel has been informed that you will be providing goods and/or services to the 800 MHz Reconfiguration licensee ("Incumbent") listed above and the Incumbent has requested that Sprint Nextel make payments to you on the Incumbent's behalf for such goods and/or services.

Any payments you receive from Sprint Nextel are made at the request and on behalf of the Incumbent, and invoices for such goods and/or services to be paid are pursuant to a vendor arrangement between you and the Incumbent to which Sprint Nextel is not a party. Sprint Nextel is not authorized to pay more than the not-to-exceed amount listed at the top of this letter. If you do not believe this amount to be correct, immediately contact the Financial Analyst listed below.

To receive payment from Sprint Nextel on behalf of the Incumbent, there are specific steps listed below that are necessary for you to conform to. These steps have been established by Sprint Nextel in conjunction with the 800 MHz Reconfiguration Transition Administrator ("TA"). By accepting payment from Sprint Nextel on behalf of the Incumbent, you will be subject to the terms and procedures of the 800MHz program as defined by the TA (see enclosed TA Vendor Fact Sheet which can also be found on their website - www.800ta.org)

1. **Payee Set Up Form:** Please complete the Payee Setup Form attached to this letter. This form provides Sprint Nextel with the information necessary to enter your payment information into its payment system.

   a. To avoid any payment delays, please submit this form within 10 days of commencing the Reconfiguration work for the Incumbent.

   b. When completing the Payee Setup Form, please note the following:
      i. Your company name on the Payee Setup Form must match the Third Party Vendor Name listed above.
      ii. The "remit to" address is your company's payment address.
      iii. The "physical address" is your company's corporate or legal address for correspondence, disputes, complaints, and contract issues.

   c. Completed forms should be faxed to Sprint Nextel at **866-221-6990**. DO NOT send Payee Setup Forms by mail.

   d. Allow ten days after submitting the Payee Setup Form before beginning to submit invoices for goods and/or services you have provided to the Incumbent.

   Note: *You need only submit the Payee Setup Form once. If you are providing goods and/or services to more than one 800MHz Incumbent, you do not need to submit duplicate forms.*

2. **Submitting Invoices:** Please follow the procedures outlined below for submitting invoices for goods and/or services you have provided to the Incumbent. A separate letter explaining this procedure was sent to each Incumbent upon execution of its frequency relocation planning or execution agreement with Sprint Nextel.

a. In order to be paid, your invoices must include the following:
   i. Your company's name (must match the Third Party Vendor Name listed above)
   ii. Your "remit to" address
   iii. Your representative's name and contact information (for questions about the invoice)
   iv. Incumbent's name (as provided above)
   v. Deal Number (as provided above)
   vi. A detailed list of goods and/or services for which you are requesting payment (broken out by line item) as well as the total sum
   vii. Applicable sales tax
   viii. Invoice date
   ix. Invoice number

b. Invoices should be faxed to Sprint Nextel on **866-221-6990**. DO NOT send invoices by mail.

c. Before payment is made, Sprint Nextel requires a confirmation from the Incumbent (in the form of an "Incumbent Acknowledgement") that you have delivered on the invoiced goods and/or services listed on your invoice.

d. To facilitate the process, you should submit a copy of each invoice both to the Incumbent and Sprint Nextel, thus also prompting the Incumbent to submit an Incumbent Acknowledgement confirming receipt of invoiced items.

e. Once Sprint Nextel has received the invoice and the Incumbent Acknowledgement, you will be paid (assuming the Payee Setup Form has been submitted and processed, as outlined above).

Note: *If you supply goods or perform services for more than one 800MHz Incumbent, please submit a separate invoice for each Incumbent and separately identify the applicable Deal ID.*

Please contact Thuc Nguyen (703) 592-7641 if you have any questions about the Payee Setup Form, sending invoices, or any other aspect of the Sprint Nextel 800MHz Reconfiguration payment process.

Enclosures: *Sprint Nextel Payee Setup Form*
Sample Invoice
TA Vendor Fact Sheet

[redacted]

123 Anywhere Rd, Newtown, NY 12345
Phone 555.555.5555 Fax 555.555.5556
JohnQ@NONAME.COM

TO Sprint Nextel
Sprint Nextel
2000 Edmund Halley Dr
Reston, VA 20190
703-555-5555
Customer ID : ABC Company

[redacted]

John Q	Retune	30 Days	1/1/05

[redacted]

100	Mobile Radios Retuned	$20.00	$2000.00
80	Portable Radios	$20.00	$1600.00
4	Engineering and Consulting Fees @ $75 per hour	$75.00	$300.00
125	Mileage Travel to and from site (125 miles @ $.48 per mile)	$0.48	$60.00

SUBTOTAL	$3960.00
SALES TAX	$0.00
TOTAL	$3960.00

[redacted]

Make all checks payable to NO NAME COMPANY

Payee Setup Form for 800 MHz Rebanding Only

PLEASE FAX BACK TO (866) 221-6990

Incumbent Name:	PASCO, COUNTY OF, FL DL8904419264		**Date:**
Vendor Name:			
Tax ID or Social Security #:			
Check Appropriate Box for Tax Status:	☐Individual/Sole Proprietor ☐Corporation ☐ Partnership ☐Federal/State/Local Gov't Agency/Entity ☐Other_____		
Remit to Address: (Same as on Invoice)			
City:		**State:**	**Zip Code:**
Physical Address: (for Delivery of Overnight Payment)			
City:		**State:**	**Zip Code:**
Accounts Receivable (A/R) Contact Name:		**Phone No:**	**Fax No:**
A/R Email Address:			

Certification Signature for Tax Status:_____ **Date:**_____

Print Name:_____ **Phone No:**_____

Under penalties of perjury, I certify that:
1. The Tax ID or Social Security # on this form is the correct taxpayer indentification number(TIN) (or I am waiting for a number to be issued to me); and
2. I am not subject to back up withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the IRS that I am subject to backup withholding as a result of a failure to report all interest of dividends or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. person (including a U.S. resident alien and U.S. companies).

Certification Instructions: You must cross out Item 2 above if you have notified the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, Item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement account (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN.

Bank Account Information:

Bank Name:_____ Name on Account:_____

Bank Address:_____ Bank Phone No:_____

Account Number:_____ Routing No:_____

Further Credit Information: _____

_____

I acknowledge that the information provided above is accurate.

Payee Signature:_____ Date:_____

Print Name:_____ Phone No:_____

For Sprint/Nextel Office Use Only

Entered By: _____ **PeopleSoft Vendor #:** _____

SHULMAN ROGERS GANDAL PORDY & ECKER, P.A.

Lawrence A. Shulman
Donald R. Rogers
David A. Pordy+
David D. Freishtat
Martin P. Schaffer
Christopher C. Roberts
Edward M. Hanson, Jr.
David M. Kochanski
Robert B. Canter
Daniel S. Krakower
Kevin P. Kennedy
Nancy P. Regelin
Samuel M. Spiritos+
Martin Levine
Worthington H. Talcott, Jr.+
Fred S. Sommer
Morton A. Faller
Alan S. Tilles
James M. Hoffman
Michael V. Nakamura
Jay M. Eisenberg+

Douglas K. Hirsch
Glenn C. Etelson
Karl J. Protil, Jr.+
Timothy Dugan+
Kim Viti Fiorentino
Sean P. Sherman+
Gregory D. Grant+
Jacob S. Frenkel•
William C. Davis, III
Michael L. Kabik
Scott D. Musoles
Michelle R. Curtis•
Michael J. Lichtenstein
Howard J. Ross+
Rebecca Oshoway
Alan B. Sternstein
Michael J. Froehlich
Sandy David Baron
Christine M. Sorge
Jeffrey W. Rubin
Simon M. Nadler

Karl W. Means
Mimi L. Magyar
Glenn W.D. Golding+
Jeremy W. Schulman
Matthew M. Moore+
Jeannie Eun Cho
David S. Wachen
Stephen A. Metz
Patrick J. Howley
Jacob A. Ginsberg
Christine P. "Tina" Hsu
Aaron A. Ghais
Debra S. Friedman•
Eric J. von Vorys
Heather L. Howard+
Hong Suk "Paul" Chung+
Carmen J. Morgan•
Kristin E. Draper•
Melissa G. Bernstein•
John D. Sadler
Marc E. Paskoff

Alexis H. Peters•
Meredith S. Campbell
Kristen Reilly+
Leslie G. Moylan•
Anne Marie Vassallo•
Matthew D. Alegi•
Melanie A. Keegan
Thomas A. Gravely
Rebekah L. Bina
William F. Gibson+
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April 1, 2008

Via Federal Express

Pasco Sheriff's Office
8700 Citizen Drive
New Port Richey, FL 34654

Attention: Joe Sekula

Re: Pasco County / City of Dade / Pasco County Sheriff's Office
Our File No. 112494.00002

Dear Joe:

Enclosed please find two (2) certified copies of the fully executed Frequency Reconfiguration Agreement.

Please do not hesitate to communicate to me any questions or comments you may have concerning the enclosures, or otherwise with respect to this matter.

Very truly yours,

SHULMAN, ROGERS, GANDAL,
PORDY & ECKER, P.A.

By: Melanie A. Keegan
Melanie A. Keegan

MAK:do
Enclosures

FREQUENCY RECONFIGURATION AGREEMENT

THIS FREQUENCY RECONFIGURATION AGREEMENT (this "Agreement") is made as of this 21 day of March, 2008 ("Effective Date"), by and between **Pasco County**, a political subdivision of the state of Florida, having an address of 8700 Citizen Drive, New Port Richey, FL 34654, **the City of Dade City**, a municipal subdivision of the state of Florida, having an address of 38042 Pasco Avenue, Dade City, FL 33525 and **the Pasco County Sheriff's Office**, a constitutional officer of the state of Florida, having an address of 8700 Citizen Drive, New Port Richey, FL 34654 (collectively, the "Incumbent" or "Licensee"), and **Nextel South Corp.**, a wholly owned indirect subsidiary of Sprint Nextel Corporation, a Kansas corporation ("Nextel"). Nextel and Incumbent may be referred to collectively in this Agreement as the "Parties."

RECITALS

A. On August 6, 2004, the Federal Communications Commission ("FCC") issued a Report and Order that modified its rules governing the 800 MHz band. The purpose of the Order was to reconfigure the 800 MHz band to minimize harmful interference to public safety radio communications systems in the band ("Reconfiguration").

B. On December 22, 2004, the FCC issued a Supplemental Order and Order on Reconsideration. The August 6, 2004 and December 22, 2004 FCC orders, and any supplemental FCC Orders in the Reconfiguration proceeding or subsequent actions after the date of this Agreement, are collectively referred to as the "Order."

C. Incumbents entered into an agreement (the "Intergovernmental Agreement") dated May 25, 2006, by which Pasco County and the City of Dade City authorized the Pasco County Sheriff's Office to be the Incumbents representative for the Nextel 800 MHz rebanding project, pursuant to which the Pasco County Sheriff's Office has the authority to negotiate and execute this Agreement for and on behalf of the Incumbents;

D. Pursuant to the Order, Incumbent and Nextel are licensed on frequency allocations subject to Reconfiguration.

E. Pursuant to the Order, Nextel will pay Incumbent an amount to effect a Reconfiguration of Incumbent's affected frequency allocations ("Reconfiguration Cost"). Incumbent will certify to the Transition Administrator appointed pursuant to the Order (the "Transition Administrator") that the Reconfiguration Cost is the minimum amount necessary to provide comparable facilities.

FOR GOOD AND VALUABLE CONSIDERATION, THE RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED, THE PARTIES AGREE AS FOLLOWS:

AGREEMENT

1. **Frequencies to be Reconfigured**: Incumbent is the licensee under the license(s) granted by the FCC identified in Schedule A (the "Incumbent Licenses") for the operation of certain 800 MHz frequencies at the locations identified on Schedule A (the "Incumbent Frequencies"). Nextel, including its subsidiaries or affiliates, is the licensee under license(s) granted by the FCC (the "Nextel Licenses") for the operation of Specialized Mobile Radio ("SMR") systems on the frequencies and at the locations identified in Schedule B (the "Replacement Frequencies"). Pursuant to the Order, Incumbent must relinquish the Incumbent Frequencies and relocate its system to the Replacement Frequencies.

2. **Frequency Reconfiguration Process:**

(a) On or before the Closing Date (as defined below) (i) Nextel or Incumbent will cause the modification of the Incumbent Licenses to add the Replacement Frequencies or Nextel will cause the

creation of a new FCC license for Incumbent that includes the Replacement Frequencies; (ii) Incumbent will cause the assignment of the Incumbent Frequencies to Nextel or will cause the deletion of the Incumbent Frequencies from the Incumbent Licenses following Reconfiguration of Incumbent's system; and (iii) Nextel will cause the modification and/or cancellation of the FCC licenses it holds for the operation of 800 MHz frequencies that are co-channels of the Replacement Frequencies, to the extent required to meet the technical short-spacing requirements of Section 90.621(b) of the FCC's Rules, 47 C.F.R. § 90.621(b), as such rule may be amended from time to time by the FCC.

(b) The parties agree that Nextel and the Incumbent (as appropriate) will make the FCC assignment filings for the Replacement Frequencies on a future date to be determined by the parties through mutual agreement, as provided in Section 5. The Parties agree to notify Nextel and the Incumbent (as appropriate) of the FCC assignment filings in accordance with the Notice provision of this Agreement.

3. **Reconfiguration Costs:**

(a) Acknowledgement of Obligations. Incumbent agrees that:

(i) the cost estimate set forth in Schedule C (the "Cost Estimate") sets forth all of the work required to reconfigure Incumbent's existing facilities to comparable facilities that will operate on the Replacement Frequencies;

(ii) after all of the work contemplated by the Cost Estimate has been performed in accordance with this Agreement and Nextel has paid all amounts required by this Agreement, the Incumbent's reconfigured system shall be deemed for all purposes of the Order to be "comparable" to Incumbent's existing system prior to Reconfiguration, and Nextel shall be deemed to have satisfied its obligations under the Order to pay the cost of relocating Incumbent's system from the Incumbent Frequencies to the Replacement Frequencies.

(b) Payment Terms. In order to facilitate the Incumbent's transition to the Replacement Frequencies, Nextel will pay the costs incurred to reconfigure Incumbent's system in an amount not to exceed the Cost Estimate, except as modified pursuant to Section 3(b)(iii) and Section 8, of this Agreement, Nextel will pay the amount of the Cost Estimate in accordance with the payment terms identified on Schedule C and as set forth below for both payments made directly to Incumbent and payments made on behalf of Incumbent directly to each third party service vendor identified on the Cost Estimate ("Vendor").

(i) Prior to the Closing Date, Incumbent will submit to Nextel documentation (including without limitation invoices, receipts, and timesheets or equivalent documentation) demonstrating the actual costs that Incumbent reasonably incurred or paid to other entities to reconfigure Incumbent's system ("Actual Costs"). Upon receipt by Nextel of documentation of the Actual Costs, Nextel and Incumbent will reconcile the Actual Costs against the payments made by Nextel to Incumbent and the Parties will agree upon the amount of any additional payments (subject to Section 8) due to Incumbent or any refunds due to Nextel. The date of receipt by Nextel of the Reconciliation Statement signed by Incumbent and Incumbent's counsel is the "Reconciliation Date." Should the parties be unable to agree upon the amount of the additional payments, the parties shall follow the resolution procedures detailed in the FCC Order.

(ii) Any additional payments due to Incumbent from Nextel will be disbursed to Incumbent within thirty (30) days of the Reconciliation Date, provided the additional payments do not result from Actual Costs that exceed the Cost Estimate (in which case the provisions of Section 3(b)(iii) of this Agreement will apply). Any refunds due from the Incumbent to Nextel will be made within thirty (30) days of the Reconciliation Date.

(iii) In the event Incumbent's Actual Costs exceed the Cost Estimate, Incumbent must submit a Change Notice pursuant to Section 8 of this Agreement describing the change in scope of work that resulted in Incumbent's Actual Costs exceeding the Cost Estimate. Approval of any Change Notice will not be automatic but will be processed in accordance with Section 8 of this Agreement. Additional payments due to Incumbent, which result from an excess of Actual Costs over the Cost Estimate, as agreed on the Reconciliation Date, will be disbursed to Incumbent within thirty (30) days of execution by the Parties of the Amendment documenting the approved changes from such Change Notice.

(iv) Prior to the Closing Date, Nextel will pay on behalf of itself and Incumbent, both Parties' applicable sales and transfer taxes, if any, and all FCC fees in connection with the preparation and filing of the necessary FCC applications for the assignment(s) described in Section 2 of this Agreement.

4. **Loaned Reconfiguration Equipment**. If needed in order to facilitate the Incumbent's transition to the Replacement Frequencies, Nextel will loan any equipment identified in Schedule D as "Loaned Reconfiguration Equipment" and/or will provide any equipment identified in Schedule D as "Replacement Equipment". Nextel will deliver any Loaned Reconfiguration Equipment to Incumbent in accordance with Schedule D. Incumbent will fax to Nextel a bill of lading associated with each shipment of Loaned Reconfiguration Equipment and/or Replacement Equipment signed by an authorized representative of Incumbent acknowledging receipt of the Loaned Reconfiguration Equipment and/or Replacement Equipment in good working order. Any Loaned Reconfiguration Equipment will be returned to Nextel by Incumbent prior to the Reconciliation Date.

5. **Retuning Cooperation:** For purposes of this Section, the "Current Program Completion Date" shall mean June 26, 2008 or such other date as may be established by the FCC for the completion of the Reconfiguration. The Parties acknowledge that the number of frequencies and locations covered by this Agreement will require the Parties to cooperate closely in performing their respective reconfiguration activities. Parties agree that: (i) as of the Effective Date, the Incumbent may begin the reconfiguration of its subscriber units, in accordance with the appropriate sections of Schedule C and Schedule D, (ii) Incumbent may commence such other activities associated with the reconfiguration of its system as further detailed on Schedule C as of the Effective Date; and (iii) the Parties will agree on a schedule to make the FCC filings, clear the Replacement Frequencies and decommission the Incumbent Frequencies (the "Schedule"). Depending on the timing of the adoption of this Schedule, it may require the submission of a Change Notice in accordance with Section 8 and/or an amendment to this Agreement, but in any event the Parties agree to adopt the Schedule no later than: (i) sixty (60) days from the Effective Date of this Agreement, or (ii) pursuant to a Schedule agreed upon at a TA scheduled "Implementation Planning Session" that includes the Incumbent's system, provided the Implementation Planning Session has been scheduled by the TA prior to the expiration of 45 days from the Effective Date of this Agreement, or (iii) such other date as the FCC may require. Notwithstanding the aforementioned, in the event the completion date in the Schedule for the reconfiguration of Incumbent's system extends beyond the Current Program Completion Date, the completion date in the Schedule will be subject to FCC approval. If by the end of the Scheduling Period, no agreement on the Schedule has been reached by the Parties, the Parties will jointly seek resolution in accordance with the dispute resolution provisions of the Order, including dispute resolution procedures adopted by the Transition Administrator; as they may be amended from time to time. Nothing in this Section shall prohibit the Incumbent from beginning work immediately on replacement of the subscriber units and/or subscriber software programming.

6. **Representations and Warranties:** Each Party represents and warrants to the other as follows:

(i) it is duly organized, validly existing and in good standing under the laws of the state of its incorporation;

(ii) this Agreement has been duly authorized and approved by all required organizational action of the Party;

(iii) neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated by this Agreement will conflict with, or result in any material violation or default under, any term of its articles of incorporation, by-laws or other organizational documents or any agreement, mortgage, indenture, license, permit, lease, encumbrance or other instrument, judgment, decree, order, law or regulation by which it is bound;

(iv) it is the lawful and exclusive FCC licensee of its respective license(s) described in this Agreement, such licenses are valid and in good standing with the FCC, and it has the authority to request the FCC to assign, modify or cancel such licenses;

(v) there is no pending or threatened action or claim that would have the possible effect of enjoining or preventing the consummation of this Agreement or awarding a third party damages on account of this Agreement; and

(vi) to the best of its knowledge, all information provided to the other Party concerning the transactions contemplated by this Agreement is true and complete.

All representations and warranties made in this Agreement shall survive the Closing Date (defined below) for two (2) years.

7. **Covenants:** From the Effective Date until the Closing Date (defined below), each Party will promptly notify the other Party upon becoming aware of any pending or threatened action by the FCC or any other governmental entity or third party to suspend, revoke, terminate or challenge any license described in this Agreement or to investigate the construction, operation or loading of any system authorized under such licenses. From the Effective Date until the Closing Date, Incumbent will not enter into any agreement resulting in, or otherwise cause, the encumbrance of any license for the Incumbent Frequencies, and Nextel will not enter into any agreement resulting in, or otherwise cause, the encumbrance of any of the Replacement Frequencies.

8. **Changes:** The Parties acknowledge that as the Reconfiguration of Incumbent's facilities proceeds in accordance with the work contemplated by the Cost Estimate, the need for changes to the scope of such work may arise. The Parties agree that their review of any such needed changes must be performed expeditiously to keep the work on schedule and that they will provide sufficient staff to manage changes. If either Party believes that a change to the work contemplated by the Cost Estimate is required (including changes by Vendors), such Party will promptly notify the other Party in writing. Such written notice (the "Change Notice") shall set forth (i) a description of the scope of the change to the work contemplated by the Cost Estimate believed to be necessary and (ii) an estimate of any increase or decrease in the Cost Estimate and in the time required to reconfigure Incumbent's existing facilities to operate on the Replacement Frequencies. A Party receiving a Change Notice shall immediately perform its own analysis of the need for and scope of the change and its impact on the Cost Estimate and schedule and negotiate the change in good faith with the other Party. After the Parties have agreed upon a change to this Agreement, they shall prepare a proposed amendment to this Agreement pursuant to Section 25 and submit to the Transition Administrator a copy of the proposed amendment together with a written request for its approval. Such request shall be accompanied by reasonable documentation supporting the need for and scope of the change and any proposed increase or decrease in the Cost Estimate and in the time required to reconfigure Incumbent's existing facilities to operate on the Replacement Frequencies.

Incumbent is responsible for all unauthorized changes necessary as it relates to work performed by a Vendor on behalf of Incumbent. No change to the Cost Estimate, the work contemplated by the Cost Estimate or the time required to reconfigure Incumbent's existing facilities to operate on the Replacement Frequencies shall become effective until the Transition Administrator has approved the change in writing and both Parties have signed an amendment incorporating such approved change into this Agreement pursuant to Section 25. In this regard, in the event that the Transition Administrator is unable to approve the proposed amendment within ten (10) business days, then the deadline by which the Incumbent must clear all users from the Replacement Frequencies, pursuant to Section 5, will be automatically extended by the number of days beyond ten (10) business days in which the Transition Administrator does not take final action to approve the proposed amendment. Should the Transition Administrator not approve the proposed amendment, either Party may appeal the decision consistent with the FCC Order, in which event the deadline in Section 5 will be extended by the number of days it takes for such appeal to be resolved. If the Parties are unable to agree on modification of this Agreement consistent with the Change Notice, either Party may request mediation consistent with the FCC Order. Once mediation has been requested, the deadline in Section 5 will be extended by the number of days it takes for all appeals to be resolved.

9. **Closing:** The closing ("Closing") of the transactions contemplated by this Agreement will take place within thirty (30) days after (i) FCC approval of the assignment of the Incumbent Frequencies to Nextel and/or deletion of the Incumbent Frequencies from the Incumbent Licenses, (ii) FCC approval of the modification to add the Replacement Frequencies to the Incumbent Licenses with no material conditions or the creation of a new license for Incumbent with no material conditions that includes the Replacement Frequencies, (iii) notification by Incumbent to Nextel that the Incumbent Licenses have been cleared of all Incumbent users pursuant to Section 5 of this Agreement, (iv) delivery by Incumbent of all receipts, invoices and other documentation required to substantiate the Actual Cost and signing by Incumbent and Incumbent's counsel and delivery to Nextel of the Reconciliation Statement and other documents required to complete the Reconciliation similar to those identified on Exhibit B, (v) FCC approval of the modification and/or cancellation of the FCC licenses Nextel holds for the operation of 800 MHz frequencies that are co-channels of the Replacement Frequencies, to the extent required to meet the technical short-spacing requirements of Section 90.621(b) of the FCC's Rules, 47 C.F.R. § 90.621(b), as such rule may be amended from time to time by the FCC, (vi) the refund to Nextel or payment to Incumbent as described in Section 3(b)(ii), (if applicable) and (vii) the satisfaction of all other conditions specified in this Agreement (the "Closing Date").

10. **Closing Conditions:** Performance of each Party's Closing obligations is subject to satisfaction of the following conditions (except to the extent expressly waived in writing by the other Party):

(a) the continued truth and accuracy of the other Party's representations and warranties set forth in this Agreement;

(b) all of the covenants of the other Party described in this Agreement are performed in all material respects; and

(c) execution and delivery by the other Party of Closing documents as well as any other Closing instruments and documents either Party or its counsel may reasonably request. Incumbent will execute and deliver to Nextel a closing certification required by the Transition Administrator.

(d) The Parties will cooperate in good faith and exercise their reasonable best efforts to finalize and execute these instruments and documents on or prior to the Closing Date in order to effect the Reconfiguration contemplated.

11. **Review Rights:** Incumbent agrees to maintain records and other supporting evidence related to the costs that Incumbent has expended in connection with the Reconfiguration contemplated by this Agreement and that Nextel has paid or will pay to Incumbent pursuant to this Agreement. Incumbent agrees to maintain such records and make them reasonably available to the Transition Administrator for review or reproduction until eighteen (18) months after the date of Incumbent's executed Completion Certification required by this Agreement or for a longer period if Incumbent, for its own purposes, retains such records for a longer period of time. As used in this provision, "records" includes books, documents, accounting procedures and practices and other data regardless of type and regardless of whether such items are in written form, in the form of computer data or in any other form. Nextel shall be responsible for all post-Closing audit expenses of the Incumbent, except those expenses resulting from fraudulent activity on behalf of the Incumbent. To the extent that any post-Closing audit determines that Nextel paid a third-party vendor more than provided for under the FCC Order, Nextel's sole remedy is to seek reimbursement directly from the third-party vendor, unless such overpayment was the result of fraud or negligence of the Incumbent.

12. **Excluded Assets; No Assumption of Liabilities:** Nothing in this Agreement should be construed as a transfer or assignment from either Party to the other Party of any assets (including FCC licenses) except as expressly set forth in this Agreement. Other than as expressly provided in this Agreement, neither Party is obligated to assign and transfer to the other Party any asset, tangible or intangible, nor is either Party entitled to assume any asset, tangible or intangible. Neither Party is assuming, nor is either Party responsible for, any liabilities or obligations of the other Party arising out of or in connection with the other Party's licenses (or related systems and facilities) that are the subject of this Agreement.

13. **Confidentiality**:

(a) The terms of this Agreement and any proprietary, non-public information regarding the Incumbent Frequencies, Replacement Frequencies, Nextel's business and Incumbent's business must be kept confidential by the Parties and their employees, shareholders, agents, attorneys and accountants (collectively, "Agents"), which confidentiality will survive the Closing or termination of this Agreement for a period of two (2) years. The Parties may make disclosures (i) as required by law, (ii) to the Transition Administrator, (iii) to a manufacturer of Replacement Equipment to allow for the provisioning of that equipment to Incumbent (but only to the extent such disclosure specifically relates to that manufacturers equipment as identified on Schedule D); and (iv) to a Vendor (but only to the extent that such disclosure specifically relates to that Vendor's work and costs under this Agreement (as identified on Schedule C) as required to perform obligations under this Agreement. Nextel, Incumbent and their respective Agents may make disclosures regarding the terms of this Agreement to other public safety licensees and their Agents in accordance with the FCC Order, WT Docket No. 02-55, adopted January 8, 2007. Each Party will cause all of its Agents to honor the provisions of this Section.

(b) Notwithstanding the provisions of Section 13(a) above, the Parties acknowledge that this contract is subject to Florida Statutes Chapter 119 and nothing in this Agreement shall be deemed to restrict, impair, or burden the Incumbent's and/or its Agents' compliance with the Florida Public Records Law." In accordance therewith, the Parties agree that absent a valid exemption, including status as a "trade secret," Incumbent and its Agents shall allow public access to all documents, papers, letters, or other material subject to Chapter 119 that are made or received by the Incumbent in conjunction with this Agreement.

14. **Cooperation**: The Parties will cooperate with each other and the Transition Administrator with respect to the Reconfiguration work contemplated by this Agreement. Without limiting the foregoing obligations, the Parties agree to cooperate in the preparation of any applications required to be filed with the FCC, and Incumbent agrees to provide reasonable access to its facilities so that the Transition Administrator may comply with any audit obligations and so any Reconfiguration work contemplated by this Agreement may be performed in accordance with the Cost Estimate and performance schedule. If a Party is subject to a denial of FCC benefits for delinquent non-tax debts owed to the FCC that would prevent or delay the timely processing of any FCC applications, such Party shall cure such delinquency in an expeditious manner and at its sole expense.

15. **Indemnification:** From and after the Closing Date, each Party (the "Indemnifying Party") will indemnify and defend the other Party, its officers, directors, employees and agents (collectively, the "Indemnified Party"), from and against all third party demands, claims, actions, losses, damages, liabilities, costs and expenses, including, without limitation, reasonable attorneys' fees and expenses (collectively, "Costs"), asserted against, imposed upon or incurred by the Indemnified Party arising from or related to: (i) any breach of any covenant, agreement, representation or warranty of the Indemnifying Party contained in, or made pursuant to, this Agreement; or (ii) any and all liabilities (including successor liabilities) or obligations relating to periods prior to the Closing Date resulting from the Indemnifying Party's operation of the system operated pursuant to the Incumbent Licenses or the Nextel Licenses, as applicable, or the ownership or use of those licenses or from the Indemnifying Party's employment, or termination of employment, of its employees. The obligations under this Section survive the Closing for a period of three (3) years. This indemnification shall not be construed as a waiver of the sovereign immunity of the Incumbent and the limitations set forth in Section 768.28, F.S.

16. **Disputes:** The Parties agree that any dispute related to the Replacement Frequencies, Nextel's obligation to pay any cost of the Reconfiguration of Incumbent's system contemplated by this Agreement, or the comparability of Incumbent's reconfigured system to Incumbent's existing system prior to Reconfiguration, which is not resolved by mutual agreement, shall be resolved in accordance with the dispute resolution provisions of the Order, including the dispute resolution procedures adopted by the Transition Administrator, as they may be amended from time to time.

17. **No Gratuities**: No gift, gratuity, credit, thing of value or compensation of any kind shall be offered or provided by Incumbent, directly or indirectly, to any officer, employee or official of either Party for the purpose of improperly obtaining or rewarding favorable treatment under this Agreement.

18. **Liens**: If any liens or security interests attach to any of Incumbent's facilities in favor of any vendor or service provider that is performing any Reconfiguration work contemplated by this Agreement as a result of Nextel's breach of any obligation to make direct payment (not in dispute) to such vendor or services provider, Nextel upon receipt of Notice from Incumbent will cooperate to remove any Liens.

19. **Vendor Performance Issues**: Incumbent will select and contract directly with any vendor or service provider performing work required to reconfigure the Incumbent's existing facilities to operate on the Replacement Frequencies. Neither the Transition Administrator nor Nextel will be responsible for, or assume the risk of any failure of that Vendor to perform its obligations under any contract entered into between Incumbent and such Vendor in connection with the Reconfiguration contemplated by this Agreement.

20. **Replaced and Replacement Equipment**:

(a) If the reconfiguration of the Incumbent's existing facilities to operate on the Replacement Frequencies involves the replacement of any of Incumbent's existing equipment ("Replaced Equipment") with equipment provided by Nextel (as identified on Schedule D) or equipment the cost of which is being

paid by Nextel pursuant to this Agreement as listed in Schedule C (collectively the "Replacement Equipment"), then (i) title to Replaced Equipment listed in Schedule D shall pass free and clear of liens and any other encumbrances, to Nextel at such time that Incumbent delivers the Replaced Equipment to Nextel's designated shipping agent, and Incumbent shall execute such documentation as Nextel may reasonably request to transfer title to Nextel, (ii) title to Replacement Equipment provided by Nextel will pass to Incumbent at Closing and Nextel shall execute such documentation as Incumbent may reasonably request to transfer title to Incumbent free and clear of liens, and (iii) Incumbent shall deliver the Replaced Equipment to Nextel at Nextel's cost, pursuant to Nextel's shipment instructions, and prior to the Reconciliation Date.

(b) If Incumbent fails to return any item of the Replaced Equipment to Nextel, Incumbent must return to Nextel those items of the Replacement Equipment that would have replaced the Replaced Equipment not returned, prior to the Reconciliation Date. If Incumbent fails to return any item of the Replaced Equipment to Nextel under this Section 20(b) and a Product Typical Value is set forth in Schedule E for the item of Replacement Equipment then either: (i) Nextel will deduct the Product Typical Value (as set forth in Schedule E) for those items of Replacement Equipment provided to replace the Replaced Equipment not returned to Nextel (including tax (if any) and shipping) (the "Nextel Equipment Refund") from the final payment due to Incumbent after the Reconciliation; (ii) Incumbent must pay Nextel the Nextel Equipment Refund for those items of Replacement Equipment not returned to Nextel in accordance with Section 3(b)(ii) (if no final payment is due to Incumbent); or (iii) Nextel will deduct the portion of the Nextel Equipment Refund up to the value of the final payment due to Incumbent and Incumbent must pay Nextel the remaining Nextel Equipment Refund not covered by the final payment in accordance with Section 3(b)(ii) (If the final payment due Incumbent is less than the Nextel Equipment Refund), or (iv) Incumbent may choose to purchase Comparable Equipment, defined below, from any source and send the equipment, along with adequate documentation, to Nextel prior to the Reconciliation Date. Comparable Equipment, shall mean equipment of the same condition (e.g., new for new or used for used) and from the same manufacturer, that is the identical model and includes the same options and accessories as the Replacement Equipment provided by Nextel.

21. **Termination**: This Agreement may be terminated and the transactions contemplated by this Agreement abandoned: (i) by mutual consent of the Parties provided in writing; (ii) for cause by either Party upon material breach of the other Party, following a thirty (30) day period for cure by the breaching Party following written notice of the breach; (iii) by Incumbent, in the event that a proposed amendment is not approved, pursuant to Section 8; or (iv) by Nextel prior to Closing in the event of any Adverse Decision affecting the Order by any governmental entity of competent jurisdiction. For purposes of this Agreement, an "Adverse Decision affecting the Order" means an order, decree, opinion, report or any other form of decision by a governmental entity of competent jurisdiction that results, in whole or part, in a stay, remand, or reversal of the Order, or otherwise in any revision to the Order that Nextel determines, in its sole discretion, to be adverse to its interests. In the event of termination, the Parties shall take all necessary action (including preparing and filing FCC documents) to return the *status quo ante* on the date of this Agreement. In the event of termination, Nextel shall pay all costs associated with the return to the *status quo ante*, as well as all Incumbent costs expended in the Agreement negotiations and implementation, except if such termination was due to an uncured material breach by Incumbent. Should Incumbent terminate this Agreement pursuant to subsection (iii), Incumbent shall not be released of its obligations under the Order.

22. **Attorney's Fees**: In any legal proceeding by a Party to enforce its rights under this Agreement against the other Party, the Party prevailing in such proceeding will be entitled to recover its reasonable attorney's fees and costs from the other Party.

23. **Notices**: All notices and other communications under this Agreement must be in writing and will be deemed given (i) the same day if delivered personally or sent by facsimile; (ii) the next business day

if sent by overnight delivery via a reliable express delivery service; or (iii) after five (5) business days if sent by certified mail, return receipt requested, postage prepaid. All notices are to be delivered to the Parties at the following addresses:

If to Incumbent, to:	If to Nextel, to:
Pasco Sheriff's Office Attn: Joe Sekula, Radio Technician 8700 Citizen Drive New Port Richey, FL 34654 Phone: 813-996-6982 x. 6204 Fax: 813-235-6050 Email: jsekula@pascosheriff.org	Nextel [Entity], Inc. c/o Nextel Communications, Inc. 2001 Edmund Halley Drive Reston, VA 20191 Attn: Heather P. Brown, Esq. Phone: (703) 433-4000 Fax: (703) 433-4483
With a copy that shall not constitute Notice: Alan S. Tilles, Esquire Shulman Rogers Gandal Pordy & Ecker, P.A. 11921 Rockville Pike, Third Floor Rockville, Maryland 20852 Phone: (301) 231-0930 Fax: (301) 230-2891	With a copy that shall not constitute Notice: Nextel Communications, Inc. 6575 The Corners Parkway Norcross, GA 30092 Attn: William Jenkins, VP Spectrum Resources Phone: (770) 326-7484 Fax: (678) 405-8252

24. **Assignment**: This Agreement is binding upon and inures to the benefit of the Parties and their respective successors and permitted assigns. Either Party may assign this Agreement to any direct or indirect subsidiary or affiliate of the Party, upon delivery of written notice to the other Party.

25. **Amendments:** This Agreement, including without limitation the scope of work contemplated hereby and the Estimated Cost thereof to be paid by Nextel, may be amended or modified only by a written instrument signed by authorized representatives of both Parties, provided, however, no amendment or modification to this Agreement shall become effective until approved by the Transition Administrator, or the FCC after an adverse decision by the Transition Administrator.

26. **Benefits:** This Agreement is for the benefit of the Parties and their successors and permitted assigns, and nothing in this Agreement gives or should be construed to give any legal or equitable rights under this Agreement to any person or entity, other than (i) the successors and assigns of the Parties, and (ii) the Transition Administrator as specifically provided in this Agreement.

27. Miscellaneous:

(a) Shelters: The Parties have agreed that new shelters to house the radio system will be authorized, subject to an engineering study and analysis with regard to the (Dade City and New Port Richey sites) to be performed by M/A-Com and/or its subcontractors. In the event that M/A-Com determines that re-alignment of equipment at the (Dade City and New Port Richey sites) would be more economical and could be accomplished without an unacceptable risk to Incumbent, Nextel and Incumbent will enter into a thirty (30) day negotiation period on this issue. If by the end of this time period, no agreement on the Shelters has been reached by the Parties, the Parties will jointly seek resolution in accordance with the dispute resolution provisions of the Order, including dispute resolution procedures adopted by the Transition Administrator; as they may be amended from time to time. Should modification to this Agreement be required as a result, the Parties will follow the procedures for a Change Notice as outlined in this Agreement.

(b) If any provision(s) of this Agreement is held in whole or part, to be invalid, void or unlawful by any administrative agency or court of competent jurisdiction, then such provision(s) will be deemed severable from the remainder of this Agreement, will in no way affect, impair or invalidate any other provision contained in the Agreement and the Parties will use their commercially reasonable efforts to amend this Agreement to make the unlawful provision compliant with applicable law so as to preserve the rights and obligations of the Parties. No action taken pursuant to this Agreement should be deemed to constitute a waiver of compliance with any representation, warranty, covenant or agreement contained in this Agreement and will not operate or be construed as a waiver of any subsequent breach, whether of a similar or dissimilar nature. This Agreement, together with the Schedules, constitutes the entire understanding and agreement between the Parties concerning the subject matter of this Agreement, and supersedes all prior oral or written agreements or understandings. This Agreement is governed by the laws of the State of Florida without regard to conflicts of law principles thereof. This Agreement may be executed in one or more counterparts, including by facsimile, which will be effective as original agreements of the Parties executing the counterpart.

In consideration of the mutual consideration set forth herein, this Agreement is effective as a legally binding agreement between the Parties upon execution by the Parties

INCUMBENT:
Pasco County Sheriff's Office

By: _____
Name: R. L. White
Title: Sheriff, Pasco County

for **Pasco, County of**

By: _____

Name:
Title:

for **Dade City, City of**

By: _____
Name:
Title:

NEXTEL:
Nextel South Corp.

By: _____

Name: WILLIAM M JENKINS
Title: AUTHORIZED SIGNATORY

SCHEDULE A

Incumbent Frequencies

Incumbent's Name: Dade City, City of; Pasco County Sheriff's Office; Pasco, County of

Incumbent Assigns to Nextel:

CALLSIGN	Frequencies	Licensee	Location	# of Frequencies	Issue Date	Lat (N)	Long (W)
KIB662	860.8375	PASCO COUNTY SHERIFFS OFFICE	NEW PORT RICHEY, FL	1	04/17/2004	28' 16' 5' N	82' 40' 5.4' W
KIB662	860.8375	PASCO COUNTY SHERIFFS OFFICE	DADE CITY, FL	1	04/17/2004	28' 21' 40' N	82' 11' 54.3' W
KIB662	860.8375	PASCO COUNTY SHERIFFS OFFICE	SAN ANTONIO, FL	1	04/17/2004	28' 18' 46' N	82' 22' 19.3' W
WNLK817	853.0375	DADE CITY, CITY OF	DADE CITY, FL	1	05/17/2003	28' 21' 48' N	82' 11' 11.3' W
WNLK817	853.0375	DADE CITY, CITY OF	DADE CITY, FL	1	05/17/2003	28' 21' 48'N	82' 11' 11.3'W
WNLK817	853.0375	DADE CITY, CITY OF	DADE CITY, FL	1	05/17/2003	28' 21' 58' N	82' 11' 31.3' W
WPXS584	853.3875	PASCO COUNTY SHERIFF'S OFFICE	SAN ANTONIO, FL	1	06/03/2003	28' 18' 46' N	82' 22' 19' W
WQA539	851.8125	PASCO, COUNTY OF	NEW PORT RICHEY, FL	1	12/17/2004	28' 16' 3' N	82' 40' 6.4' W
WQA539	851.8125	PASCO, COUNTY OF	DADE CITY, FL	1	12/17/2004	28' 21' 40' N	82' 11' 54.3' W
WQEU971	867.0125	PASCO, COUNTY OF	SAN ANTONIO, FL	1	04/21/2006	28' 18' 37.5' N	82' 25' 40.4' W
WQEU971	867.5125	PASCO, COUNTY	SAN ANTONIO,	1	04/21/2006	28' 18'	82' 25' 40.4' W

		OF	FL			37.5' N	
WQEU971	868.0125	PASCO, COUNTY OF	SAN ANTONIO, FL	1	04/21/2006	28' 18' 37.5' N	82' 25' 40.4' W
WQFN291	853.3875	PASCO, COUNTY OF	SAN ANTONIO, FL	1	08/22/2006	28' 18' 37.5' N	82' 25' 40.4' W

SCHEDULE B

Replacement Frequencies

Incumbent's Name: Dade City, City of; Pasco County Sheriff's Office; Pasco, County of

Nextel Assigns to Incumbent:

Replacement Frequencies	Lat (N)	Long (W)	ERP (W)	Gnd Elev (ft)	Ant. Height (ft)	New Licensee	Location
854.4875	28' 21' 48 N	82' 11' 11.3 W	44	92 ft.	131 ft.	Dade City, City of	Dade City, FL
854.4875	28' 21' 58 N	82' 11' 31.3 W	228	118 ft.	151 ft.	Dade City, City of	Dade City, FL
854.6375	28' 18' 46 N	82' 22' 19 W	217	79 ft.	499 ft.	Pasco County Sheriff's Office	San Antonio, FL
858.3875	28' 16' 5 N	82' 40' 5.4 W	345	36 ft.	305 ft.	Pasco County Sheriff's Office	New Port Richey, FL
858.3875	28' 18' 46 N	82' 22' 19.3 W	250	79 ft.	499 ft.	Pasco County Sheriff's Office	San Antonio, FL
858.3875	28' 21' 40 N	82' 11' 54.3 W	345	144 ft.	305 ft.	Pasco County Sheriff's Office	Dade City, FL
858.8125	28' 16' 3 N	82' 40' 6.4 W	190	16 ft.	308 ft.	Pasco, County of	New Port Richey, FL
858.8125	28' 21' 40 N	82' 11' 54.3 W	95	144 ft.	135 ft.	Pasco, County of	Dade City, FL
852.0125	28'18'37.5 N	82'25'40.4 W	150	1 ft	1 ft	Pasco, County of	San Antonio, FL
852.5125	28'18'37.5 N	82'25'40.4 W	150	1 ft	1 ft	Pasco, County of	San Antonio, FL
853.0125	28'18'37.5 N	82'25'40.4 W	150	1 ft	1 ft	Pasco, County of	San Antonio, FL
854.6375	28'18'37.5 N	82'25'40.4 W	150	1 ft	1 ft	Pasco, County of	San Antonio, FL

SCHEDULE C

800 MHZ RECONFIGURATION

COST ESTIMATE – CERTIFIED REQUEST

Incumbent's Name: Pasco County, Pasco County Sheriff's Office, Dade City, Fl

Request for Reconfiguration Funding

Pursuant to the Order, Incumbent is required to reconfigure its existing facilities and requests Nextel to fund the estimated reconfiguration costs included below:

Incumbent Payment Terms : Nextel will pay Incumbent an amount not to exceed the Estimated Cost(s) for Incumbent with respect to each category of work, as set forth below. Nextel will pay Incumbent $76,508.36 within 15 days (30 days if Incumbent elects to be paid by check rather than electronic funds transfer) after receipt by Nextel of the fully executed Agreement and fully completed Incumbent Information Form (as set forth on Exhibit A). Nextel will make an interim payment to Incumbent in the amount of $76,508.36within 30 days after receipt of the fully executed Agreement and fully completed Incumbent Information Form. Nextel will make a final payment of the outstanding balance of the Actual Costs due to Incumbent within 30 days after the Reconciliation Date (as "Actual Costs" and "Reconciliation Date" are defined in Section 3(b)(i)).

Vendor Payment Terms: Sprint Nextel will pay each Vendor an amount not to exceed the Estimated Cost(s) for that Vendor with respect to each category of work, as set forth below. Sprint Nextel will pay each Vendor within 30 days after receipt by Sprint Nextel of (A) an invoice from the Vendor and (B) Incumbent's approval of receipt of goods and services and approval of associated costs included on the Vendor invoice.

1. **System Description**: Simulcast system, county wide, with other entities. 5 repeater sites, 6 control station, 2 conventional sites and 2300 mobiles and portables.

The major system elements to be reconfigured are summarized in the table below:

	Total In System	Total Included in FRA
Base station frequencies	10	10
- Voice channels	4	4
- Home/Control channels		
Repeater sites	6	6
Other sites (remote recv, BDA)	3	3
Subscriber units retuned	442	442
Subscriber units reprogrammed	1162	1162
Subscriber units replaced	698	698
Entities operating on the system	6	6

2. **Reconfiguration Milestones**:

Reconfiguration Task	Estimated Duration in # of Days
Reconfigure Subscriber Equipment	337
Reconfigure Infrastructure Equipment	337
	337

3. **Implementation Plan**: The attached Implementation Plan and associated deliverables describe the reconfiguration implementation plan resulting from funds expended under the Planning Funding Agreement dated August 16, 2006.

See attachment.

4. **Cost Estimate**:

Description of Work To Be Performed	Payee (separately identify Incumbent and each Vendor being paid for work performed)	Estimated Cost(s) for Incumbent and each Vendor (Not to exceed listed amount)
All reconfiguration costs including subscriber, infrastructure, testing, professional services and other are identified and listed specifically in the following Exhibits:		
Exhibit 1 – Pasco County, FL	Pasco County Sheriff's Office 8700 Citizen Drive New Port Richey, Fl. 34654 (Incumbent)	$155,628.72
See SOW – M/A-COM, dated 9/25/07		$1,950,606.00
Exhibit 10 and SOW (equipment list, including spare parts) – M/A-COM	M/A-COM Inc. 221 Jefferson Ridge Pkwy. Lynchburg, VA. 24501 marcellda@tycoelectronics.com	$1,812,443.80
Exhibit 4 – Tusa Consulting Services	Tusa Consulting Services 909 Poydras St. Suite 2150	$123,465.00

	New Orleans, La. 70112 813-451-6048 Peter.allan@verizon.net	
IV. Contracts and Legal a. Legal Fees to Negotiate FRA 100 hrs @ no more than $400/hr. b. Other Legal Fees (Preparation & Review of Closing Documents) c. Other Legal Fees	Shulman Rogers Gandal Pordy & Ecker, P.A. 11921 Rockville Pike, Third Floor Rockville Md. 20852 (Vendor)	 $40,000.00 $750.00
Total Estimated Costs		$4,082,893.52

Certification

Pursuant to the Order, Incumbent hereby certifies to the Transition Administrator appointed pursuant to the Order that the funds requested above are the minimum necessary to provide Incumbent reconfigured facilities comparable to those presently in use. If applicable, Incumbent further certifies, to the best of Incumbent's knowledge, that any vendor costs listed on Schedule C are comparable to costs that vendor previously charged Incumbent for similar work.

Signature for and on behalf of Pasco County, Pasco County Sheriff's Office and City of Dade City:

Print Name: R. L. White
Title: Sheriff, Pasco County
Phone Number: 727-847-5878
E-mail
Date: 3/4/08

SCHEDULE D

1) **Loaned Reconfiguration Equipment (provided by Nextel)**

2) **Replacement Equipment (to be provided by Nextel)**

Quantity	Manufacturer	Description	Model Number	New/Used
331	M/A-COM	P7100IP System, 806-870 MHz Unencrypted	HT7170T81X	Used
75	M/A-COM	Scan, 806-870 MHz P7150IP Radio Type Unencrypted	HT7150S81X	Used
406	M/A-COM	ANTENNA, 806-870 MHZ, WHIP	HTNC1K	Used
406	M/A-COM	FEATURE, 800 SYSTEMS/GROUPS	HTPL3R	New
406	M/A-COM	FEATURE PACKAGE, EDACS TRUNKING OPERATION (include	HTED	Used
626	M/A-COM	BATTERY, NICD, HIGH CAPACITY	HTPA7V	New
406	M/A-COM	CHARGER, DESK, RAPID, 120/230 VAC	HTCH9E	New
325	M/A-COM	CHARGER, VEHICULAR, ENHANCED, DUAL POSITION I. F	H2VPDE	New
325	M/A-COM	KIT, CONTROL UNIT, SCAN, REMOTE CONTROL	H2MA3H	New
50	M/A-COM	CHARGER, VC3000 CHARGER, P7100/5100	MAH2-VC3P7	New
10	M/A-COM	CHARGER, MULTI, RAPID, 120/230 VAC	HTCH9A	New
163	M/A-COM	MICROPHONE, LAPEL Includes Rubber PTT Button, Emer	HTAE7A	New
430	M/A-COM	BELT LOOP, LEATHER, WITH SWIVEL	HTHC7T	New
194	M/A-COM	BELT CLIP, METAL	HTHC7P	New
12	M/A-COM	HEADSET, LIGHTWEIGHT, WITH 1 SPEAKER	OT-V4-10315	New
6	M/A-COM	MANUAL MAINTENANCE, P7100IP SERIES, 800 MHZ	MM800HT	New
293	M/A-COM	M7100IP 806-870 MHz, 35W Unencrypted	MAHG-S8MXX	Used
293	M/A-COM	FEATURE PACKAGE, EDACS TRUNKING OPERATION (include	MAHG-ED	Used
185	M/A-COM	CONTROL UNIT, SCAN, FRONT MOUNT	MAHG-CP7U	Used
53	M/A-COM	CONTROL UNIT, SYSTEM, FRONT MOUNT	MAHG-CP7V	Used
231	M/A-COM	KIT, ACCESSORY, FRONT MOUNT, 50W TX AND BELOW	MAHG-ZN5W	Used
55	M/A-COM	CONTROL UNIT, SCAN, REMOTE MOUNT	MAHG-CP7W	Used
55	M/A-COM	KIT, ACCESSORY, REMOTE MOUNT, 50W TX AND BELOW	MAHG-ZN5X	New
55	M/A-COM	FEATURE, 800 EDACS SYSTEMS/GROUPS	MAHG-PL3R	New
286	M/A-COM	MICROPHONE, MOBILE	MAHG-MC7T	Used
7	M/A-COM	DESKTOP BASE, TONE REMOTE, LOCAL CONTROL	DSDX04	New
7	M/A-COM	MICROPHONE, DESK	MAHG-MC5A	New

3) **Replaced Equipment (to be delivered to Nextel prior to the Reconciliation Date)**

Quantity	Manufacturer	Description	Model Number
8	M/A Com	Mobile	FMD
223	M/A Com	Mobile	MDX
1	M/A Com	Control Station (with local and tone remote control)	MDX Desk
56	M/A Com	Portable	MPA Scan
259	M/A Com	Portable	MPA System
19	M/A Com	Portable	MPD Scan
72	M/A Com	Portable	MPD System
55	M/A Com	Mobile (with S-825 Scan)	Rangr Scan
6	M/A Com	Control Stations (each with local and tone remote control)	Rangr Desk
24	GE	Simulcast Repeater Stations	MASTR II
2	GE	Conventional Repeater Station	MASTR II
1	EF Johnson	Conventional Repeater Station	Johnson
1	GE	8 channel, 3 site simulcast control point equipment	ElectroCom SCCP
1	GE	8 channel, 3 site receiver voting comparator	GE Voter
3	GE	8 channel simulcast remote site common equipment including TAU, CC Monitor, WWVB reference, and inter-station cabling.	GE RSCE
2	TX/RX	8 channel, 800 MHz combiner	TP800A
1	TX/RX	10 channel 800 MHz combiner	TP800A
3	TX/RX	Receiver multicoupler	42-85-12
194	M/A COM	Belt Clip, Metal	Belt Clip, Metal
430	M/A COM	Belt Loop, Leather, with Swival	Belt Loop, Leather, with Swival
626	M/A COM	Battery, NICD, High Capacity	Battery, NICD, High Capacity
286	M/A COM	Microphone, Mobile	Microphone, Mobile
7	M/A COM	Microphone Desk	Microphone Desk
163	M/A COM	Microphone, Lapel	Microphone, Lapel
406	M/A COM	Single Unit Rapid Charger	Charger, Single Unit
50	M/A COM	Charger, Vehicular Standard	Charger, Vehicular
325	M/A COM	Charger, Vehicular Enhanced	Charger, Vehicular
10	M/A COM	Charger, Multi Rapid 120/230 VAC	Charger, Multi Unit
12	M/A COM	Headset, Lightweight, with 1 speaker	Headset
406	M/A COM	Portable Antenna	Antenna, Portable

SCHEDULE E

Product Typical Values

The Product Typical Values for Replacement Equipment shall be:

a. for Replacement Equipment set forth on Schedule C, the cost shown on Schedule C for the item of Replacement Equipment; or

b. for Replacement Equipment comprising M/A-COM subscriber radios, options and accessories, the most recent price list as of the date a reconciliation statement is sent to Incumbent by Nextel less 15%.

In lieu of paying the Product Typical Value as stated above, Incumbent can purchase equipment identical to the Replacement Equipment from any source and send the equipment to Nextel prior to the Reconciliation Date.

EXHIBIT A

Incumbent Information

The following questions are required for processing Electronic Funds Transfers and if Incumbent wants Nextel to complete the FCC filings on its behalf. All information contained herein shall be kept strictly confidential and will be used only in completion of the Frequency Reconfiguration transaction.

I. INCUMBENT INFORMATION

Please provide the following information:

Company/Name: Pasco Sheriff's Office
Contact: R. L. White Title: Sheriff, Pasco County, FL
Address: 8700 Citizen Drive
City/State/Zip: New Port Richey, FL 34654
Phone: 727-847-5878
Fax: 727-844-7742

If not identified in the contract, please provide the following:

If Incumbent is a Partnership, please provide name, address and phone numbers of all other partners:

Name: _____ **Name:** _____
Address: _____ **Address:** _____
_____ _____
City/State/Zip: _____ **City/State/Zip:** _____
Phone: _____ **Phone:** _____

II. BANK ACCOUNT INFORMATION (Required for payment via electronic funds transfer.)

Name of Bank: SunTrust
Address of Bank: 401 E. Jackson Street, 20th Floor
City/State/Zip: Tampa, FL 33602
Bank Phone #: 813-224-2552
ABA (Routing #): 063102152
Account #: 0197000838593
Name on Account: Pasco Sheriff's Operating Account
Federal, State or Individual SS #: 59-6000796
Name of Brokerage Firm (if applicable): _____
Brokerage Account # (if applicable): _____

In the event Incumbent will not provide information for electronic funds transfer, Incumbent acknowledges that all payments made by check will be mailed within thirty (30) days of the date of performance required by Incumbent (for each payment) as stipulated in the Agreement.

Acknowledged by Incumbent: _____ *(signature required only if Incumbent does not want an electronic funds transfer)*

III. TAX INFORMATION

The Internal Revenue Service and state tax authorities require Nextel to report all transactions, even if the transaction is exempt from taxation (if so, it will be reported to the IRS as a like-kind exchange). Therefore, it is necessary for Nextel to collect the information below. If you have specific questions about your tax implications in this transaction, you should consult your own accountant or financial advisor.

Incumbent's Federal, State or Individual Tax ID #, FEIN (Federal) or SSN (individuals): 59-6000796

State(s) – sales tax license, resale permit, employment, etc.): 85-8012622294C-3 Florida Certificate of Exempt

Local (if applicable): _____

Current State and County location for your principal executive office: Pasco County, Florida

If there has been more than one location for the principal executive office within the past five (5) years, list each such City/County/State location: _____

_____

IV. REGULATORY INFORMATION

Would you like Nextel's Regulatory department to prepare and file all necessary FCC paperwork on your behalf? **Yes** / **No** (No circled)

If yes, please provide the following **Universal Licensing System ("ULS")** information for your licenses:

FRN (FCC Registration Number): _____

ULS PASSWORD: _____

Contact Representative for any FCC related issues:

Name: _____

Phone Number: _____

If no, please provide the following information regarding who will take care of the preparation and filing of all necessary FCC paperwork on your behalf:

Contact Name: Alan S. Tilles, Esquire

Organization: Shulman Rogers Gandal Pordy & Ecker, P.

Address: 11921 Rockville Pike, Suite 300

City: Rockville

State/Zip: Maryland, 20852

Phone Number: 301-231-0930

Email Address: atilles@srgpe.com

I hereby acknowledge that all of the information provided herein is true and correct as of the date signed below.

Incumbent Signature: R L White

Print Name: R.L. White

Title: Sheriff, Pasco County, FL

Date: 2/25/08

EXHIBIT B

Reconciliation Documentation

Certification of Labor

Incumbent hereby certifies that the internal labor information provided under the Agreement is true and complete to the best of Incumbent's knowledge. Incumbent further certifies that the the number of planning and reconfiguration tasks that the Incumbent performed using internal labor for each labor category on the TA-approved Cost Estimate (as that term is defined in the Agreement) and/or the number of internal labor hours incurred in performing planning and reconfiguration tasks for each labor category on the TA-approved Cost Estimate were for 800 MHz Reconfiguration and have been documented in accordance with the TA's policy on Incumbent Labor at http://www.800ta.org/content/PDF/policy/IncumbentLaborRatePolicy.pdf as of the date of this statement. Incumbent acknowledges that the reconciliation documentation and related supporting records for the Agreement are subject to the TA's Review Rights (as that term is defined in the Agreement).

Incumbent Name: Pasco County, Pasco County Sheriff's Office and City of Dade City

Signature for and on behalf of Pasco County, Pasco County Sheriff's Office and City of Dade City:

_____

Name: _____

Title: _____

Date: _____

Time Sheet Documentation

DEAL ID

DEAL NAME

Name	Description of Activities	Actual Hours Worked	Actual Hourly Rate $	Benefit Load $ (if applicable)	Total Cost $
				Total	

Certification

Incumbent hereby certifies that the internal labor information provided under the Agreement is true and complete to the best of Incumbent's knowledge. Incumbent further certifies that the the number of planning and reconfiguration tasks that the Incumbent performed using internal labor for each labor category on the TA-approved Cost Estimate (as that term is defined in the Agreement) ("Units") and/or the number of internal labor hours incurred in performing planning and reconfiguration tasks for each labor category on the TA-approved Cost Estimate ("Hours") were for 800 MHz Reconfiguration and have been documented in accordance with the TA's policy on Incumbent Labor at http://www.800ta.org/content/PDF/policy/IncumbentLaborRatePolicy.pdf as of the date of this statement. Incumbent acknowledges that the reconciliation documentation and related supporting records for the Agreement are subject to the TA's Review Rights (as that term is defined in the Agreement).

**** To be completed in lieu of Incumbent Invoice AND Certification of Labor Rates.**

Incumbent Name: _____

Signature: _____

Name: _____

Title: _____

Date: _____

EXHIBIT 1

Pasco County, Fl. Costs for
Rebanding

Employees of incumbent will be responsible to ensure all public employees will have continuous communications during rebanding operations. They will do the work to reprogram each radio, to remove and install all radios into police vehicles, fire vehicles and any other user of the system. They will also coordinate employee work schedules to ensure continuous communications during the rebanding process.

Reconfiguration and Installing of mobile units
539 days= $152,748.72

Employees will be deployed to offer access and security to sites that need rebanding work. They will be the contact point and security for all service.
Installation of Fixed Equipment 13 days= $2,880.00

TOTAL $155,628.72

EXHIBIT 2

Rebanding Equipment List
(Attached)

Pasco County Rebanding-Equipment List

ATTACHMENT 2

3/15/2007

Qty.	Description	Price	
CEC SWITCH UPGRADE			$ 26,723
	SIMULCAST-Central Electronics Controller (CEC) Upgrade	$ 26,723	
1	KIT,TRUNKED SYSTEM INTERFACE(MIM)		
1	KIT,REDUNDANT TRUNKED SYSTEM INTF(RMIM)		
8	FEATURE,T1/E1 CHANNELS		
1	CABLE,BACKPLANE(SHORT)		
1	KIT,CABLE,T1/E1 INTERFACE		
2	KIT,CABLE,T1/E1 TO SITE		
1	Cable,T1/E1 to Site,25FT		
1	MODULE,T1 CONCENTRATOR		
1	KIT,T1/E1 INTERFACE		
CSD UPGRADE			$ 3,615
	SIMULCAST-Communication System Director (CSD) Upgrade	$ 3,615	
1	Kit, 8-port serial Control Device Master		
2	Modem,Desk,Zyxel,19.2-9.6KBps,120VAC		
2	Cable,Modem,25FT		
GPS SIMILCAST SYSTEM			$ 1,374,659
	SIMULCAST-Site-Dade City	$ 241,998	
1	SYSTEM EQUIPMENT,TX SITE,EDACS GPS		
1	INSTRUCTION,TX SITE,GPS SMLCST,SitePro		
1	HANDLING,M7100 RADIO		
1	POWER SUPPLY,120/230VAC,50/60HZ,5/12/24V		
1	Kit,Device Master,32 Port Serial		
1	Assembly,Network Sentry IEA,GPS SMLCST		
1	Kit,Cable,GPS TX Site Common Equip		
8	Cable,Device Mstr to Mapping Module		
1	AMPLIFIER,DISTRIBUTION,10MHZ,120V,>12CH		
3	PANEL,JACKFIELD		
2	OUTLET STRIP,120VAC		
1	KIT,TEST UNIT,GPS SIMULCAST W SitePro		
1	KIT,ETHERNET HUB,24 PORT		
1	CABLE,ETHERNET HUB,10FT		
1	CABINET,83 IN,EXTRA DEEP		
1	FAN,120VAC,EXTRA DEEP CABINET		
1	MULTIPLEXER,TX,6-8CH AC LD,Network		
2	PANEL,BLANK,2 RACK UNITS		
1	Kit,Cable,GPS TX Site Common Equip		
1	KIT,CABLE,CO-LOCATED,CH 1-12		
1	CABLE,WWVB,8FT		
2	CABLE,WWVB,10FT		
2	CABLE,WWVB,12FT		
2	CABLE,WWVB,14FT		
1	CABLE,WWVB,16FT		
4	CABLE,INTERCONNECT,5FT,25 PAIR		
2	CABLE,INTERCONNECT,7FT,25 PAIR		
1	CABLE,INTERCONNECT,10FT,25 PAIR		
1	CABLE,RJ11 TO RJ11,6FT		
4	TERMINATION,50 OHM LOAD		
1	CABLE,RJ11 TO RJ11,6FT		
1	Cable,M7100 TU		

1	Mobile,M7100-IP,806-870MHz,35W
1	Programming,Set TX Power,Rated(TU Appl)
1	Handling,Send Radio to Station Area(TU)
1	Feature Set,Test Unit
1	Control Unit,System,Front Mount
25	CABLE,COAX,1/4 IN,50 OHM,PE FOAM
2	CONNECTOR,COAX,N-MALE,HEX HEAD
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	CABINET,83 IN
1	PANEL,SYSTEM,SIMULCAST(GPS) W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	FAN,120VAC
1	OUTLET STRIP,120VAC
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #1
4	CABLE,ETHERNET HUB,5FT
1	TOOL,SitePro CARD INSERTION/EXTRACTION
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #2
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	OUTLET STRIP,120VAC
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	CABINET,83 IN
1	PANEL,SYSTEM,SIMULCAST(GPS) W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack

1	FAN,120VAC	
1	OUTLET STRIP,120VAC	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #1	
4	CABLE,ETHERNET HUB,10FT	
1	TOOL,SitePro CARD INSERTION/EXTRACTION	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #2	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	OUTLET STRIP,120VAC	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4	
1	POWER SENSOR,403-1000MHZ	
	SIMULCAST-Site-Dade City-Antenna	**$ 37,662**
1	COMBINER,10CH,83 IN CAB,800MHZ	
1	POWER SENSOR,403-1000MHZ	
1	CABLE,RF SENSOR,30FT	
1	TAPE,VAPOR-WRAP,3 IN,50 FT ROLL	
1	ANTENNA,W/BRACKETS,806-869 MHZ,14.3DB	
1	ANTENNA,W/BRACKETS,806-869 MHZ,14.3DB	
1	KIT,ANTENNA SIDE MOUNT,ASPR614	
1	Amplifier,Towertop,806-824MHZ,Test Port	
3	CABLE,6FT,NM/NM,1/2H,F4-NMNM-6/FSJ4-50B	
2	CONNECTOR,N FEMALE,FOR LDF7-50A	
4	KIT,GROUNDING,W GND LUG,FOR 1 5/8 IN CA	
335	CABLE,COAX,1-5/8 IN,50 OHM,PE FOAM	
2	KIT,COAX HOISTING GRIP,1 5/8 IN,24312A	
10	KIT,HANGER,1 5/8 IN CABLE,QTY 10	
10	KIT,ANGLE ADAPTER,QTY 10	
1	KIT,FEEDTHRU BOOT,1-5/8 IN,40656-2	
2	CONNECTOR,N FEMALE,FOR LDF5-50A	
4	KIT,GROUNDING,W GND LUG,5/8,7/8 IN CA	
335	CABLE,COAX,7/8 IN,50 OHM,PE FOAM	
2	KIT,HOISTING GRIP,7/8 IN CABLE	
10	KIT,HANGER,7/8 IN CABLE,QTY 10	
10	KIT,ANGLE ADAPTER,QTY 10	

1	KIT,FEEDTHRU BOOT,7/8 IN,40656-1	
220	CABLE,COAX,1/2 IN,50 OHM,SUPERFLEX	
6	CONNECTOR,N MALE,FOR FSJ4-50B	
2	CONNECTOR,N FEMALE,FOR FSJ4-50B	
1	FILTER,800-900MHZ,N MALE,FLANGE MT	
1	FILTER,PICKOR,15VDC,N MALE	
1	MULTICOUPLER,806-824MHZ,8CH,DC	
8	CONNECTOR,BNC MALE,FOR FSJ1-50A	
8	CONNECTOR,COAX,N-MALE,HEX HEAD	
8	CONNECTOR,N MALE,FOR FSJ4-50B	
8	CONNECTOR,N MALE,FOR FSJ4-50B	
120	CABLE,COAX,1/4 IN,50 OHM,PE FOAM	
1	FILTER,PICKOR,15VDC,N MALE	
4	KIT,GROUNDING,W GND LUG,FOR 1/2 IN CABLE	
2	KIT,HOISTING GRIP,1/2 IN CABLE	
20	KIT,HANGER,1/2 IN CABLE	
20	KIT,ANGLE ADAPTER,QTY 10	
1	KIT,FEEDTHRU,1/2 IN CABLE	
335	CABLE,COAX,1/2 IN,50 OHM,PE FOAM	
2	CONNECTOR,N MALE,FOR LDF4-50A	
40	CABLE,COAX,1/4 IN,50 OHM,PE FOAM	
2	CONNECTOR,COAX,N-MALE,HEX HEAD	
1	Test Signal Injector Kit	
	SIMULCAST-Site-Darby	$ 270,351
1	SYSTEM EQUIPMENT,TX SITE,EDACS GPS	
1	INSTRUCTION,TX SITE,GPS SMLCST,SitePro	
1	HANDLING,M7100 RADIO	
1	POWER SUPPLY,120/230VAC,50/60HZ,5/12/24V	
1	Kit,Device Master,32 Port Serial	
1	Assembly,Network Sentry IEA,GPS SMLCST	
1	Kit,Cable,GPS TX Site Common Equip	
8	Cable,Device Mstr to Mapping Module	
1	AMPLIFIER,DISTRIBUTION,10MHZ,120V,>12CH	
3	PANEL,JACKFIELD	
2	OUTLET STRIP,120VAC	
1	KIT,TEST UNIT,GPS SIMULCAST W SitePro	
1	KIT,ETHERNET HUB,24 PORT	
1	CABLE,ETHERNET HUB,10FT	
1	CABINET,83 IN,EXTRA DEEP	
1	FAN,120VAC,EXTRA DEEP CABINET	
1	MULTIPLEXER,TX,6-8CH AC LD,Network	
1	KIT,CABLE,GPS	
2	Oscillator,GPS RX Crystal OSC,AC	
1	CABLE,WWVB,8FT	
2	CABLE,WWVB,10FT	
2	CABLE,WWVB,12FT	
2	CABLE,WWVB,14FT	
1	CABLE,WWVB,16FT	
4	CABLE,INTERCONNECT,5FT,25 PAIR	
2	CABLE,INTERCONNECT,7FT,25 PAIR	
1	CABLE,INTERCONNECT,10FT,25 PAIR	
1	CABLE,RJ11 TO RJ11,6FT	
4	TERMINATION,50 OHM LOAD	
1	CABLE,RJ11 TO RJ11,6FT	
1	Cable,M7100 TU	
1	Mobile,M7100-IP,806-870MHz,35W	
1	Programming,Set TX Power,Rated(TU Appl)	
1	Handling,Send Radio to Station Area(TU)	

1	Feature Set,Test Unit
1	Control Unit,System,Front Mount
25	CABLE,COAX,1/4 IN,50 OHM,PE FOAM
2	CONNECTOR,COAX,N-MALE,HEX HEAD
2	ANTENNA,1575.42MHZ,SET
2	Filter,Surge
2	CABLE,GPS ANTENNA,50FT
2	CABLE,GPS ANTENNA,50FT
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	CABINET,83 IN
1	PANEL,SYSTEM,SIMULCAST(GPS) W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	FAN,120VAC
1	OUTLET STRIP,120VAC
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #1
4	CABLE,ETHERNET HUB,5FT
1	TOOL,SitePro CARD INSERTION/EXTRACTION
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #2
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	OUTLET STRIP,120VAC
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	CABINET,83 IN
1	PANEL,SYSTEM,SIMULCAST(GPS) W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC

1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	FAN,120VAC	
1	OUTLET STRIP,120VAC	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #1	
4	CABLE,ETHERNET HUB,10FT	
1	TOOL,SitePro CARD INSERTION/EXTRACTION	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #2	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	OUTLET STRIP,120VAC	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4	
1	POWER SENSOR,403-1000MHZ	
	SIMULCAST-Site-Darby-Antenna	**$ 46,477**
1	COMBINER,10CH,83 IN CAB,800MHZ	
1	COMBINER,TX,EXPANSION CHANNEL	
1	POWER SENSOR,403-1000MHZ	
1	CABLE,RF SENSOR,30FT	
1	TAPE,VAPOR-WRAP,3 IN,50 FT ROLL	
1	ANTENNA,W/BRACKETS,806-869 MHZ,14.3DB	
1	ANTENNA,PENETRATOR OMNIDIRECTIONAL	
2	KIT,ANTENNA SIDE MOUNT,ASPR614	
1	Amplifier,Towertop,806-824MHZ,Test Port	
3	CABLE,6FT,NM/NM,1/2H,F4-NMNM-6/FSJ4-50B	
2	CONNECTOR,N FEMALE,FOR LDF7-50A	
5	KIT,GROUNDING,W GND LUG,FOR 1 5/8 IN CA	
535	CABLE,COAX,1-5/8 IN,50 OHM,PE FOAM	
3	KIT,COAX HOISTING GRIP,1 5/8 IN,24312A	
17	KIT,HANGER,1 5/8 IN CABLE,QTY 10	
17	KIT,ANGLE ADAPTER,QTY 10	
1	KIT,FEEDTHRU BOOT,1-5/8 IN,40656-2	
2	CONNECTOR,N FEMALE,FOR LDF5-50A	
5	KIT,GROUNDING,W GND LUG,5/8,7/8 IN CA	
535	CABLE,COAX,7/8 IN,50 OHM,PE FOAM	
3	KIT,HOISTING GRIP,7/8 IN CABLE	

17	KIT,HANGER,7/8 IN CABLE,QTY 10	
17	KIT,ANGLE ADAPTER,QTY 10	
1	KIT,FEEDTHRU BOOT,7/8 IN,40656-1	
220	CABLE,COAX,1/2 IN,50 OHM,SUPERFLEX	
6	CONNECTOR,N MALE,FOR FSJ4-50B	
2	CONNECTOR,N FEMALE,FOR FSJ4-50B	
1	FILTER,800-900MHZ,N MALE,FLANGE MT	
1	FILTER,PICKOR,15VDC,N MALE	
1	MULTICOUPLER,806-824MHZ,8CH,DC	
8	CONNECTOR,BNC MALE,FOR FSJ1-50A	
8	CONNECTOR,COAX,N-MALE,HEX HEAD	
8	CONNECTOR,N MALE,FOR FSJ4-50B	
8	CONNECTOR,N MALE,FOR FSJ4-50B	
120	CABLE,COAX,1/4 IN,50 OHM,PE FOAM	
1	FILTER,PICKOR,15VDC,N MALE	
5	KIT,GROUNDING,W GND LUG,FOR 1/2 IN CABLE	
3	KIT,HOISTING GRIP,1/2 IN CABLE	
34	KIT,HANGER,1/2 IN CABLE	
34	KIT,ANGLE ADAPTER,QTY 10	
1	KIT,FEEDTHRU,1/2 IN CABLE	
535	CABLE,COAX,1/2 IN,50 OHM,PE FOAM	
2	CONNECTOR,N MALE,FOR LDF4-50A	
40	CABLE,COAX,1/4 IN,50 OHM,PE FOAM	
2	CONNECTOR,COAX,N-MALE,HEX HEAD	
1	Test Signal Injector Kit	
	SIMULCAST-Site-Newport Richey	$ 270,351
1	SYSTEM EQUIPMENT,TX SITE,EDACS GPS	
1	INSTRUCTION,TX SITE,GPS SMLCST,SitePro	
1	HANDLING,M7100 RADIO	
1	POWER SUPPLY,120/230VAC,50/60HZ,5/12/24V	
1	Kit,Device Master,32 Port Serial	
1	Assembly,Network Sentry IEA,GPS SMLCST	
1	Kit,Cable,GPS TX Site Common Equip	
8	Cable,Device Mstr to Mapping Module	
1	AMPLIFIER,DISTRIBUTION,10MHZ,120V,>12CH	
3	PANEL,JACKFIELD	
2	OUTLET STRIP,120VAC	
1	KIT,TEST UNIT,GPS SIMULCAST W SitePro	
1	KIT,ETHERNET HUB,24 PORT	
1	CABLE,ETHERNET HUB,10FT	
1	CABINET,83 IN,EXTRA DEEP	
1	FAN,120VAC,EXTRA DEEP CABINET	
1	MULTIPLEXER,TX,6-8CH AC LD,Network	
1	KIT,CABLE,GPS	
2	Oscillator,GPS RX Crystal OSC,AC	
1	CABLE,WWVB,8FT	
2	CABLE,WWVB,10FT	
2	CABLE,WWVB,12FT	
2	CABLE,WWVB,14FT	
1	CABLE,WWVB,16FT	
4	CABLE,INTERCONNECT,5FT,25 PAIR	
2	CABLE,INTERCONNECT,7FT,25 PAIR	
1	CABLE,INTERCONNECT,10FT,25 PAIR	
1	CABLE,RJ11 TO RJ11,6FT	
4	TERMINATION,50 OHM LOAD	
1	CABLE,RJ11 TO RJ11,6FT	
1	Cable,M7100 TU	
1	Mobile,M7100-IP,806-870MHz,35W	

1	Programming,Set TX Power,Rated(TU Appl)
1	Handling,Send Radio to Station Area(TU)
1	Feature Set,Test Unit
1	Control Unit,System,Front Mount
25	CABLE,COAX,1/4 IN,50 OHM,PE FOAM
2	CONNECTOR,COAX,N-MALE,HEX HEAD
2	ANTENNA,1575.42MHZ,SET
2	Filter,Surge
2	CABLE,GPS ANTENNA,50FT
2	CABLE,GPS ANTENNA,50FT
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	CABINET,83 IN
1	PANEL,SYSTEM,SIMULCAST(GPS) W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	FAN,120VAC
1	OUTLET STRIP,120VAC
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #1
4	CABLE,ETHERNET HUB,5FT
1	TOOL,SitePro CARD INSERTION/EXTRACTION
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #2
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	Power Supply,120VAC,60Hz,12/24VDC
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack
1	OUTLET STRIP,120VAC
1	Cable,SitePro Controller Shelf
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4
1	POWER SENSOR,403-1000MHZ
1	STATION,MASTR E-Net,806-870MHZ,100W
1	Instruction,Rack-up,SitePro GPS
1	FEATURE,VOTING TONE(1950HZ)
1	KIT,GPS SIMULCAST W SitePro
1	CABINET,83 IN

1	PANEL,SYSTEM,SIMULCAST(GPS) W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	FAN,120VAC	
1	OUTLET STRIP,120VAC	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #1	
4	CABLE,ETHERNET HUB,10FT	
1	TOOL,SitePro CARD INSERTION/EXTRACTION	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #2	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4	
1	POWER SENSOR,403-1000MHZ	
1	STATION,MASTR E-Net,806-870MHZ,100W	
1	Instruction,Rack-up,SitePro GPS	
1	FEATURE,VOTING TONE(1950HZ)	
1	KIT,GPS SIMULCAST W SitePro	
1	Power Supply,120VAC,60Hz,12/24VDC	
1	Kit,Mounting Hrdwr,69/83/86in Cab/Rack	
1	OUTLET STRIP,120VAC	
1	Cable,SitePro Controller Shelf	
1	KIT,CABLE,SitePro SIMLCAST,STN #3 & #4	
1	POWER SENSOR,403-1000MHZ	
	SIMULCAST-Site-Newport Richey-Antenna	**$ 37,662**
1	COMBINER,10CH,83 IN CAB,800MHZ	
1	POWER SENSOR,403-1000MHZ	
1	CABLE,RF SENSOR,30FT	
1	TAPE,VAPOR-WRAP,3 IN,50 FT ROLL	
1	ANTENNA,W/BRACKETS,806-869 MHZ,14.3DB	
1	ANTENNA,W/BRACKETS,806-869 MHZ,14.3DB	
1	KIT,ANTENNA SIDE MOUNT,ASPR614	
1	Amplifier,Towertop,806-824MHZ,Test Port	
3	CABLE,6FT,NM/NM,1/2H,F4-NMNM-6/FSJ4-50B	
2	CONNECTOR,N FEMALE,FOR LDF7-50A	
4	KIT,GROUNDING,W GND LUG,FOR 1 5/8 IN CA	
335	CABLE,COAX,1-5/8 IN,50 OHM,PE FOAM	
2	KIT,COAX HOISTING GRIP,1 5/8 IN,24312A	
10	KIT,HANGER,1 5/8 IN CABLE,QTY 10	
10	KIT,ANGLE ADAPTER,QTY 10	
1	KIT,FEEDTHRU BOOT,1-5/8 IN,40656-2	
2	CONNECTOR,N FEMALE,FOR LDF5-50A	
4	KIT,GROUNDING,W GND LUG,5/8,7/8 IN CA	
335	CABLE,COAX,7/8 IN,50 OHM,PE FOAM	

2	KIT,HOISTING GRIP,7/8 IN CABLE	
10	KIT,HANGER,7/8 IN CABLE,QTY 10	
10	KIT,ANGLE ADAPTER,QTY 10	
1	KIT,FEEDTHRU BOOT,7/8 IN,40656-1	
220	CABLE,COAX,1/2 IN,50 OHM,SUPERFLEX	
6	CONNECTOR,N MALE,FOR FSJ4-50B	
2	CONNECTOR,N FEMALE,FOR FSJ4-50B	
1	FILTER,800-900MHZ,N MALE,FLANGE MT	
1	FILTER,PICKOR,15VDC,N MALE	
1	MULTICOUPLER,806-824MHZ,8CH,DC	
8	CONNECTOR,BNC MALE,FOR FSJ1-50A	
8	CONNECTOR,COAX,N-MALE,HEX HEAD	
8	CONNECTOR,N MALE,FOR FSJ4-50B	
8	CONNECTOR,N MALE,FOR FSJ4-50B	
120	CABLE,COAX,1/4 IN,50 OHM,PE FOAM	
1	FILTER,PICKOR,15VDC,N MALE	
4	KIT,GROUNDING,W GND LUG,FOR 1/2 IN CABLE	
2	KIT,HOISTING GRIP,1/2 IN CABLE	
20	KIT,HANGER,1/2 IN CABLE	
20	KIT,ANGLE ADAPTER,QTY 10	
1	KIT,FEEDTHRU,1/2 IN CABLE	
335	CABLE,COAX,1/2 IN,50 OHM,PE FOAM	
2	CONNECTOR,N MALE,FOR LDF4-50A	
40	CABLE,COAX,1/4 IN,50 OHM,PE FOAM	
2	CONNECTOR,COAX,N-MALE,HEX HEAD	
1	Test Signal Injector Kit	
	SIMULCAST-Site-Dade City-Control Point/Voter Equipment	$ 470,158
1	SYSTEM EQUIPMENT,CTRL PT TEST,EDACS GPS	
1	HANDLING,M7100 RADIO	
1	CABINET,83 IN,EXTRA DEEP	
1	FAN,120VAC,EXTRA DEEP CABINET	
1	OUTLET STRIP,120VAC	
1	TEST EQUIPMENT,TRANSMISSON TEST SET	
1	TEST EQUIPMENT,OSCILLOSCOPE	
4	PANEL,BLANK,3 RACK UNITS	
8	PANEL,BLANK,2 RACK UNITS	
1	Mobile,M7100-IP,806-870MHz,35W	
1	Handling,Send Radio to Station Area(TU)	
1	Programming,Set TX Power,Rated(TU Appl)	
1	Feature Set,Test Unit	
1	Control Unit,System,Front Mount	
1	SYSTEM EQUIPMENT,VF DIST/MUX,EDACS GPS	
1	CABINET,83 IN,EXTRA DEEP	
1	FAN,120VAC,EXTRA DEEP CABINET	
2	OUTLET STRIP,120VAC	
5	PANEL,JACKFIELD	
4	PANEL,BLANK,1 RACK UNIT	
7	PANEL,BLANK,3 RACK UNITS	
3	MARKER STRIP	
4	MODULE,AUDIO DISTRIBUTION	
3	MULTIPLEXER,CP,6-8CH AC LD,Network	
3	CABLE,BYPASS,MUX	
1	KIT,CABLE,GPS MUX,#1	
1	KIT,CABLE,GPS MUX,#2	
1	KIT,CABLE,GPS MUX,#3	
1	CABLE,RJ11 TO RJ11,10FT	
2	CABLE,INTERCONNECT,7FT,25 PAIR	
2	CABLE,INTERCONNECT,10FT,25 PAIR	

8	CABLE,INTERCONNECT,15FT,25 PAIR
1	CABLE,MUX CONTROL POINT,15FT
1	CABLE,POWER,AUDIO SHELF,22FT
3	CABLE,DATA,3P/P6,12FT
3	CABLE,ETHERNET HUB,20FT
1	CABLE,BYPASS,DOWNLINK RESET,20FT
1	CABLE,INTERCONNECT,20FT,25 PAIR
1	SYSTEM EQUIPMENT,EDACS GPS CP W SIM
1	CABINET,83 IN,EXTRA DEEP
1	FAN,120VAC,EXTRA DEEP CABINET
2	OUTLET STRIP,120VAC
1	CABLE,DATA,2FT
1	KIT,CABLE,GPS
1	POWER SUPPLY,120/230VAC,50/60HZ,5/12VDC
1	MODULE,POWER SUPPLY,5/12VDC(QTY 2)
1	MODULE,SELECTOR AMP,1.544MHZ,AC
2	TERMINATION,50 OHM LOAD
3	PANEL,JACKFIELD
1	CABLE,BYPASS,REDUNDANT DOWNLINK,20FT
1	KIT,ETHERNET HUB,24 PORT
1	CABLE,ETHERNET HUB,10FT
1	Assembly,Network Sentry IEA,GPS SMLCST
1	Panel,Xconnect,Network Sentry IEA
1	CABLE,ETHERNET HUB,8FT
1	Kit,Cable,GPS TX Site Common Equip
2	Oscillator,GPS RX Crystal OSC,AC
8	KIT,SitePro CONTROLLER(1 PER CH)
1	KIT,SSCP EXPANSION,7-12 CH
8	CABLE,ETHERNET HUB,5FT
1	CONTROL UNIT,SIM,FOR GPS SMLCST CTRL PT
1	CABINET,83 IN,EXTRA DEEP
1	FAN,120VAC,EXTRA DEEP CABINET
1	OUTLET STRIP,120VAC
1	CABLE,POWER,120VAC
1	KIT,MOUNTING,MODEM
1	MODEM,ZYXEL,19.2-9.6KBPS,120VAC
1	Kit,Modem,9600 Baud For Downlink Appl
1	Power Supply,120VAC,60Hz,12VDC
1	KIT,GETC,REDUNDANT DOWNLINK
1	KIT,SHELF,MODEM/UAS POWER SUPPLY
1	SYSTEM EQUIPMENT,VOTER INTF,EDACS GPS
1	CABINET,83 IN,EXTRA DEEP
1	FAN,120VAC,EXTRA DEEP CABINET
1	OUTLET STRIP,120VAC
1	PANEL,BLANK,2 RACK UNITS
1	KIT,VOTER INTF COMMON EQUIPMENT,6 SITES
13	PANEL,BLANK,3 RACK UNITS
4	CABLE,INTERCONNECT,15FT,25 PAIR
7	CABLE,INTERCONNECT,20FT,25 PAIR
2	CABLE,INTERCONNECT,20FT,25 PAIR
6	CABLE,INTERCONNECT,15FT,25 PAIR
2	ANTENNA,1575.42MHZ,SET
2	Filter,Surge
2	CABLE,GPS ANTENNA,50FT
2	CABLE,GPS ANTENNA,50FT
1	Antenna,806-869 MHz,Omni,10DB
1	Connector,NM for 1/2" Coaxial
5	Kit,Grounding for 1/2" Coaxial

250	Cable,Coaxial,1/2" Low Loss,LCF12-50J
1	Surge Protector,Coaxial
2	Connector,NM for 1/4" Coaxial
30	Cable,1/4" Foam-Dielectric Coaxial
1	CONNECTOR, N FEMALE, COAXIAL CABLE
1	MULTIPLEXER,T1 TERMINAL
2	MODULE,4 PORT ASYNCHRONOUS DATA
2	ADAPTER,FOR 4 AND 5 PORT DATA MODULE
1	Power Supply,Y-Series, 60W AC
2	MODULE,4 CHANNEL 4 WIRE E&M VOICE,T1
2	MODULE,4 CHANNEL VOICE INTERFACE
1	MANUAL,INSTL/MAINT,SITE INTF MODULE(SIM)
1	Manual,Maint,GPS Simulcast,W/SIM/SitePro
1	Software,Mastr IIE/Mastr III Programming
1	MANUAL,MAINT,EDACS CMPCT VERTICAL VOTER
1	Manual,Install/Oper,Analog Voter,JPS
1	Voter,EDACS Analog/Digital
1	Instruction,Simulcast,2 Ch/2-6 Sites
1	Instruction,Voted w SitePro
1	Cabinet,83 Inch,Extra Deep
1	Panel,Power Distribution,Digital Voter
1	Kit,Cable Exit,Right Side of Cabinet
1	Kit,Cable Exit,Left Side of Cabinet
1	Power Supply,120/230VAC,50/60HZ,5/12VDC
1	Panel,Blank,Power Supply(Qty 2)
1	Fan,120VAC,Extra Deep Cabinet
2	Outlet Strip,120VAC
1	Kit,Test Module
1	Module,RS232 Intf for 1 Channel,1 Site
1	Kit,Common Equipment,Digital Voter
1	Kit,Voter Interface,2 CH Per Shelf
2	Module,RS232 Intf for 1 Channel,1 Site
1	Cable,Non-Digital Dispatch
1	Module,Digital Receiver
1	Cable,Digital Voter Power,3 FT
1	System,Analog Voter,1 Ch,3 Sites
1	Kit,Cable,6 Site Simulcast/4 Site Voted
1	Module,RS232 Intf for 1 Channel,1 Site
1	Cable,Non-Digital Dispatch
1	Module,Digital Receiver
1	System,Analog Voter,1 Ch,3 Sites
1	Module,RS232 Intf for 1 Channel,1 Site
1	Kit,Common Equipment,Digital Voter
1	Kit,Voter Interface,2 CH Per Shelf
2	Module,RS232 Intf for 1 Channel,1 Site
1	Cable,Non-Digital Dispatch
1	Module,Digital Receiver
1	Cable,Digital Voter Power,5 FT
1	System,Analog Voter,1 Ch,3 Sites
1	Kit,Cable,6 Site Simulcast/4 Site Voted
1	Module,RS232 Intf for 1 Channel,1 Site
1	Cable,Non-Digital Dispatch
1	Module,Digital Receiver
1	System,Analog Voter,1 Ch,3 Sites
1	Module,RS232 Intf for 1 Channel,1 Site
1	Kit,Common Equipment,Digital Voter
1	Kit,Voter Interface,2 CH Per Shelf
2	Module,RS232 Intf for 1 Channel,1 Site

1	Cable,Non-Digital Dispatch		
1	Module,Digital Receiver		
1	Cable,Digital Voter Power,6 FT		
1	System,Analog Voter,1 Ch,3 Sites		
1	Kit,Cable,6 Site Simulcast/4 Site Voted		
1	Module,RS232 Intf for 1 Channel,1 Site		
1	Cable,Non-Digital Dispatch		
1	Module,Digital Receiver		
1	System,Analog Voter,1 Ch,3 Sites		
1	Voter,EDACS Analog/Digital		
1	Instruction,Simulcast,2 Ch/2-6 Sites		
1	Instruction,Voted w SitePro		
1	Cabinet,83 Inch,Extra Deep		
1	Panel,Power Distribution,Digital Voter		
1	Kit,Cable Exit,Right Side of Cabinet		
1	Kit,Cable Exit,Left Side of Cabinet		
1	Kit,Cable,Cab to Cab Power		
1	Fan,120VAC,Extra Deep Cabinet		
2	Outlet Strip,120VAC		
1	Module,RS232 Intf for 1 Channel,1 Site		
1	Kit,Common Equipment,Digital Voter		
1	Kit,Voter Interface,2 CH Per Shelf		
2	Module,RS232 Intf for 1 Channel,1 Site		
1	Cable,Non-Digital Dispatch		
1	Module,Digital Receiver		
1	Cable,Digital Voter Power,3 FT		
1	System,Analog Voter,1 Ch,3 Sites		
1	Kit,Cable,6 Site Simulcast/4 Site Voted		
1	Module,RS232 Intf for 1 Channel,1 Site		
1	Cable,Non-Digital Dispatch		
1	Module,Digital Receiver		
1	System,Analog Voter,1 Ch,3 Sites		
CIVILS			$ 807,864
	Dade City		
	Site Development-Dade City	$ 99,375	
1	Shelter 14 x 20		
1	Shelter Foundations		
1	Transportation cost		
1	Off-load & set Shelter		
1	Run Fiber to Existing Shelter in conduit		
1	Add light modulator for fiber Both ends		
1	Cable Bridge		
1	Final Clean Up		
1	Weed barrier & gravel or Re-seed grass		
	Generator-Dade City	$ 45,184	
1	Outdoor Generator 40KW		
1	ATS Panel		
1	Slabs, Offload Set-up		
1	Gen On-site tech		
1	Propane tank & 1st fill-up		
	Electrical Equipment-Dade City	$ 34,336	
1	Primary AC service		
1	Wire In UPS & by-pass ckt		
1	Wire in Generator & ATS		
1	Wire in DC Power AC Connections		
1	208/240 kicker transformer		
1	UPS Breaker panel		

1	Grounding		
1	Surge Protectors AC Main & ATS (2)		
1	Sure Protectors for all telco & control lines		
1	Conduit to existing Shelter, run fiber		
1	Misc AC wiring		
	Uninterrupteable Power Supply-Dade City	$	17,243
1	UPS 12 KVA		
1	UPS N+1 16 min run time		
	Hang Antennas-Dade City	$	31,080
1	Install antennas, Lines & Side arms		
1	Remove Old Antennas & Line at a later time		
	Darby		
	Site Development-Darby	$	90,946
1	Shelter 12 x 16		
1	Shelter Foundations		
1	Transportation cost		
1	Off-load & set Shelter		
1	Run Fiber to Existing Shelter in conduit		
1	Add light modulator for fiber Both ends		
1	Erosion Control (Includes Temp improvements)		
1	Cable Bridge		
1	Fencing		
1	Final Clean Up		
1	Weed barrier & gravel or Re-seed grass		
	Generator-Darby	$	41,197
1	Outdoor Generator 35KW		
1	ATS Panel		
1	Slabs, Offload Set-up		
1	Gen On-site tech		
1	Propane tank & 1st fill-up		
	Electrical Equipment-Darby	$	34,336
1	Primary AC service		
1	Wire In UPS & by-pass ckt		
1	Wire in Generator & ATS		
1	Wire in DC Power AC Connections		
1	208/240 kicker transformer		
1	UPS Breaker panel		
1	Grounding		
1	Surge Protectors AC Main & ATS (2)		
1	Sure Protectors for all telco & control lines		
1	Conduit to existing Shelter, run fiber		
1	Misc AC wiring		
	Uninterrupteable Power Supply-Darby	$	11,585
1	UPS 12 KVA		
1	UPS N+1 16 min run time		
	Hang Antennas-Darby	$	31,080
1	Install antennas, Lines & Side arms		
1	Remove Old Antennas & Line at a later time		
	Newport Richey		
	Site Development-Newport Richey	$	85,988
1	Shelter 12 x 16		
1	Shelter Foundations		
1	Transportation cost		
1	Off-load & set Shelter		
1	Run Fiber to Existing Shelter in conduit		
1	Add light modulator for fiber Both ends		
1	Erosion Control (Includes Temp improvements)		
1	Cable Bridge		

1	Final Clean Up				
1	Weed barrier & gravel or Re-seed grass				
	Generator-Newport Richey	$	41,197		
1	Outdoor Generator 35KW				
1	ATS Panel				
1	Slabs, Offload Set-up				
1	Gen On-site tech				
1	Propane tank & 1st fill-up				
	Electrical Equipment-Newport Richey	$	34,336		
1	Primary AC service				
1	Wire In UPS & by-pass ckt				
1	Wire in Generator & ATS				
1	Wire in DC Power AC Connections				
1	208/240 kicker transformer				
1	UPS Breaker panel				
1	Grounding				
1	Surge Protectors AC Main & ATS (2)				
1	Sure Protectors for all telco & control lines				
1	Conduit to existing Shelter, run fiber				
1	Misc AC wiring				
	Uninterrupteable Power Supply-Newport Richey	$	11,585		
1	UPS 12 KVA				
1	UPS N+1 16 min run time				
	Hang Antennas-Newport Richey	$	31,080		
1	Install antennas, Lines & Side arms				
1	Remove Old Antennas & Line at a later time				
	Supporting Services				
	Special Services	$	167,314		
1	Permits - A&E				
1	Zoning				
1	Tower analysis				
1	FCC-license applicaction assistance/site				
1	Shipping Cost				
1	Staging Cost				
1	Storage Facility				
EF JOHNSON CONVENTIONAL REPEATER REPLACEMENT				$	0
	CONVENTIONAL-Pasco County-Duplexer				
	provided by Sprint-Nextel	$	0		
1	DUPLEXER,806-960M,2CAV,RACK MT,DB4090-A				
	CONVENTIONAL-Pasco County-Repeater				
	provided by Sprint Nextel	$	0		
1	Mastr II Conv Repeater, 100W				
1	CABINET				
1	TONE REMOTE/REPEAT w/Channel Guard				
1	Power Supply,120VAC,60Hz,12/24VDC				
BACK-TO-BACK REPEATER				$	0
	MUTUAL AID-Darby Site-Back-To-Back Repeater System				
	provided by Sprint-Nextel	$	0		
1	Vega Dual IP Remote Adapter Panel				
1	Mastr II Conv Repeater, 100W				
1	CABINET				
1	TONE REMOTE/REPEAT w/Channel Guard				
1	Power Supply,120VAC,60Hz,12/24VDC				

CONTROL STATIONS				$ 22,477
	SUBSCRIBER UNITS-Control Stations (M/A-COM Replacements)	$	22,477	
6	DESKTOP BASE,LOCAL CONTROL			
6	CABLE,STATION TO ANTENNA			
6	Mobile,M7100-IP,806-870MHz,35W			
6	Feature,800 System/Groups			
6	Feature Set,EDACS Radio			
6	Control Unit,Scan,Front Mount			
6	Microphone,Desk			

EXHIBIT 3

Pasco County Statement of Work
(Attached)

FREQUENCY RECONFIGURATION AGREEMENT (FRA)

STATEMENT OF WORK

Table of Contents

List of Tables

Introduction

In order to streamline the negotiations process for Pasco County, M/A-COM has constructed this proposal in conformance with the guidelines for completing a Frequency Reconfiguration Agreement (FRA) Schedule C Cost Estimate. The structure of this proposal directly corresponds to the guidelines suggested by the Transition Administrator (TA). All tasks and procedures are identified in the categorized sections below. Costs within this Statement of Work have been summarized in the pricing summary pages found under the Pricing tab.

The system upgrades required for the Pasco County network components subject to reconfiguration have been generally determined by M/A-COM and Pasco County. Whereas the basic overall design of the system does not change, the components within these systems need to be replaced or modified to comply with the FCC reconfiguration program.

This proposal has been strategically constructed so as to introduce the most economical plan with the least amount of capacity and coverage degradation to the County during the reconfiguration process. The following approach provides a cost effective path with minimal disruption to service and capacity to the County's EDACS system having a total of eight licensed channels (one of which is an Expansion Band channel) at each of three simulcast sites. Additionally, the reconfiguration prescribed herein covers two conventional channels and four Mutual Aid channels.

Reconfiguration Overview

System Description

The County's 800 MHz radio communications systems consist of:

- The County's 3-site, 8-channel M/A-COM EDACS Simulcast system
- Dade City's 800 MHz conventional channel at Edwinola site
- The County's 800 MHz conventional channel at Dade City site
- The County's conventional Florida Mutual Aid channel at Darby site
- The County's Florida Mutual Aid transportable emergency communications facility
- The County's 3-channel NPSPAC Mutual Aid emergency communications system in same transportable facility stated above

EDACS Simulcast System

The primary 800 MHz trunked system is shared by virtually all county agencies as well as all municipal public safety departments. One of the EDACS simulcast system's eight frequencies, Channel 6, must be retuned from 815/860.8375 MHz to 813/858.3875 MHz. This system is one of the very first 800 MHz EDACS simulcast systems installed by the General Electric Co. (now M/A-COM). It is based on MASTR II base stations, ElectroCom simulcast control and equalization equipment, and NEC multiplex channel banks. All of this equipment has been out of production for some time and spare parts and manufacturer support for this equipment is extremely limited. As such, any modification to this system poses significant issues and risks, which were considered in this rebanding effort.

Subscriber Units

The County has a fleet of approximately 2,266 user radios (1,422 portables, 834 mobiles and 10 control stations). This equipment spans the full range of user equipment manufactured for use on an EDACS network, from GE MPD's and FMD's to current production M/ACOM P7100 and M7100 series units. All of these units will be required to be retuned to the reconfigured trunked system and mutual aid frequencies. Any equipment that is incapable of being retuned to these new frequencies will require replacement with comparable units that can be appropriately tuned.

Conventional Equipment

Dade City's conventional channel supports local operations within the City as well as providing backup for the City in the event of a failure of the primary simulcast system. It is a single channel MASTR II wire-line controlled conventional repeater installed on the roof of a building in Dade City. This station currently operates on 808/853.0375 MHz and must be retuned to 809/854.4875 MHz.

Pasco County operates a single 800 MHz conventional station at the Dade City TX/RX site. This is a Johnson conventional repeater station that currently operates at 806/851.8125 MHz and must be reconfigured to 813/858.8125 MHz.

Mutual Aid Conventional Equipment

The County operates a single permanently installed Florida Mutual Aid channel that is centrally located in the county at the Darby site. This is a MASTR-II station and must be retuned from 808/853.3875 MHZ to 809/854.6375 MHz

The County also operates a 4-channel portable emergency radio system that must be reconfigured. The portable emergency system is trailer mounted and includes four (4) M/A-COM MASTR-III conventional repeater stations, an emergency power generator, and a crank-up 100' tower. One of these stations is currently tuned to the Florida State-wide 800 MHz Mutual Aid channel (808/853.3875 MHz) and must be retuned to 809/854.6375MHz. The other three stations are tuned to NPSPAC Mutual Aid channels I-TAC2, I-TAC3, and I-TAC4 (822/867.0125 MHz, 822/867.5125 MHz, and 823/868.0125 MHz, respectively). Each of these NPSPAC stations must be retuned 15 MHz lower to 807/852.0125 MHz, 807/852.5125 MHz and 808/853.0125 MHz, respectively. The timing of the retuning of the three (3) NPSPAC channels must coincide with Wave 3, Phase 2 of the national reconfiguration plan

Shelters and Civils

In order to provide physical space for the replacement trunked simulcast equipment, M/A-COM will provide additional shelters at all three simulcast RF sites. This will include concrete shelters, foundation, electrical system, UPS, interior single point ground system, generator with ATS and fuel tank. M/A-COM will also provide an additional cable bridge from the tower to the additional shelter to be mounted at the cable entry port. M/A-COM will construct an exterior ground system around the shelter that will tie into the tower ground along with the existing shelter and other items in the compound.

Inter-site Backhaul

It is M/A-COM's plan to use the County's existing MW. We do not recommend moving it so it will remain in the existing shelter. M/A-COM will install a conduit run between the existing shelter and the additional shelter. A fiber optic cable will be pulled through the conduit. M/A-COM will supply the light modulator equipment on both ends to bring a T1 from the MW equipment to the replacement simulcast mux equipment. This will be done at all three sites.

Tower Considerations

To facilitate the installation and configuration of the replacement simulcast RF equipment, M/A-COM will hang replacement TX and RX antenna systems including a TTA. Both antennas will be mounted on 6' side arms. The TX antenna will use 1-1/4" cable and the RX antenna will use 7/8" cable. After the simulcast trunked system is cut over, M/A-COM will have a tower crew remove the old antennas and feed line to reduce tower loading. This will also be done at all three sites.

Reconfiguration Milestones

The following is a list of anticipated start and completion dates for major reconfiguration milestones.

Table 1 – Reconfiguration Milestone Summary

Reconfiguration Task	Start Date	Completion Date	Duration (days)
Reconfiguration Planning	TBD	TBD	25
Reconfigure Subscriber Equipment	TBD	TBD	133
Reconfigure Infrastructure Equipment	TBD	TBD	326
System Verification	TBD	TBD	5

A detailed reconfiguration schedule is provided under the Project Schedule tab.

Reconfiguration Summary

Table 2 below summarizes the key system equipment of the Pasco County 800 MHz radio system. All programming, reprogramming, and re-tuning tasks will be performed by M/A-COM.

Table 2 -- Equipment Reconfiguration Summary

Equipment	Existing Qty	Reprogram & Retune	Replace	Add	Retune/ Replace/ Add By
EDACS Site Equipment					
No. of Repeater Sites	3	-	-	-	
Total No. of Trunked Channels	8	1	-	-	M/A-COM
Total No. of Repeater Stations	24	-	24	-	M/A-COM
Total No. of TX Combiners	3	-	3	-	M/A-COM
Total No. of TX Antennas	3	-	3	-	M/A-COM
Total No. of Multicouplers	3	-	3	-	M/A-COM
Total No. of TTA	3	-	3	-	M/A-COM
Total No. of RX Antennas	3	-	3	-	M/A-COM
Conventional Equipment					
Total No. of Conv/Mutual Aid Repeaters	7	6	1	1	M/A-COM
Total No. of Conventional Aux Receivers	0	-	-	-	
Total No. of Conventional Combiners	1	1	-	-	M/A-COM
Total No. of Conventional Antennas	4	-	-	-	
Total No. of Duplexers	2	-	1	-	M/A-COM
CEC Switch Equipment					
Total No. of Audio Interface Cards	2	-	-	-	M/A-COM
Total No. of TEC Boards	0	-	-	1	M/A-COM
Total No. of MIM Modules	1			1	M/A-COM
Total No. of Redundant MIM Modules	1			1	M/A-COM
Total No. of Causeways Licenses	0	-	-	-	
Subscriber Equipment (per consultant)					
Number of Portable Units	1304		406	-	Sprint-Nextel
Number of Portable Units	1304	898			M/A-COM
Number of Mobile Units	952		286	-	Sprint-Nextel
Number of Mobile Units	952	666			M/A-COM
Number of Control Station Units	10	4	6	-	M/A-COM
Number Unidentified Registered Units	0	-	-	-	

Reconfiguration Plan

As the radio system manufacturer, M/A-COM has been requested to provide a turnkey set of services. This set of services includes the following:

- Reprogram existing re-tunable subscriber equipment.
- Program replacement radios on County/City systems.
- Replace EDACS simulcast control point and voter equipment.
- Replace each of the three EDACS simulcast RF sites including simulcast common equipment, repeater stations, transmit and receive antennas, transmitter combiner, tower-top amplifier, and receiver multicoupler. Additional equipment shelters and emergency generators are also required to support the reconfigurations.
- Replace County's EF Johnson conventional repeater station and duplexer.
- Replace City of Dade City GE MASTR II conventional repeater station and and power supply and retune duplexer.
- Replace County Florida Mutual Aid GE MASTR II repeater station.
- Reprogram/retune M/A-COM MASTR III Florida Mutual Aid and NPSPAC Mutual Aid repeater stations, which are part of Transportable Emergency Communications System.
- Following the reconfiguration and acceptance verification of all replaced systems, M/A-COM will remove replaced equipment from the sites and ship to Sprint-Nextel.

The designed reconfiguration plan consists of a semi-phased approach involving prerequisite work prior to actual system reconfiguration work.

The scheduled prerequisite work will allow certain components of the existing public safety system to be gradually expanded, retuned or replaced with the least amount of disruption to service in order to prepare for the major reconfiguration. This includes installation of shelters, antenna systems, station equipment, programming subscriber personalities, and mobile and portable radio replacements.

EDACS Equipment Reconfiguration

Pasco County operates approximately 2,266 user radios within various agencies located throughout the County. The designated replacement radios embody an estimated 816 vintage radios including FMD, MDX, MPA, MPD, MTD, and RANGR that must be replaced during the reconfiguration.

The reconfiguration plan is based on Pasco County providing facilities to conduct radio replacement and reprogramming. The County will prepare a drop-off schedule for reprogramming and replacement of mobile and portable radios. During the reprogramming, M/A-COM will reprogram radios with the new rebanded frequency set and replace non-reconfigurable radios. M/A-COM will submit all radio data files recorded during the reprogramming to the County.

In accordance with prior agreement between M/A-COM and Sprint Nextel, M/A-COM will replace the County's existing simulcast system, which consists of GE MASTR II repeater stations and Electrocom Automation simulcast control equipment. It is M/A-COM's position that the vintage of the equipment and lack of technical support pose significant risks to the continued operation of the system should any attempt be made to retune the system. Therefore, in order to meet 800 MHz reconfiguration requirements, M/A-COM proposes to replace the simulcast infrastructure with current

production simulcast control and station equipment. Additionally, due to the lack of space at existing simulcast sites, additional equipment including equipment shelters and emergency generators are required to support system reconfiguration. The replaced equipment will be shipped to Sprint-Nextel at the end of the County's reconfiguration project.

M/A-COM's approach allows Pasco County to maintain close to their current traffic channel capacity and Grade of Service (GoS) during transition. M/A-COM proposes to remove trunked Channel 6 from service during system reprogramming/retuning and replacement of subscriber equipment and cutover to the replacement RF infrastructure. This reconfiguration plan results in only one "touch" to subscriber equipment during EDACS trunked system reconfiguration. A second touch is planned during NPSPAC Mutual Aid reconfiguration.

Table 3 -- 800 MHz Trunked System Frequencies

Existing		Proposed	
TX	RX	TX	RX
855.8175	810.8175	855.8175	810.8175
856.8375	811.8375	856.8375	811.8375
857.8375	812.8375	857.8375	812.8375
858.8375	813.8375	858.8375	813.8375
859.8375	814.8375	859.8375	814.8375
860.8375*	815.8375*	858.3875	813.3875
855.2250	810.2250	855.2250	810.2250
856.2250	810.2250	856.2250	811.2250

*Expansion Band Channel

Mutual Aid Equipment Reconfiguration

As stated above, Pasco County operates two Mutual Aid systems. The County operates a single permanently installed Florida Mutual Aid channel (MA-FLA - Channel 96) that is centrally located in the county at the Darby tower. The band reconfiguration to be applied to MA-FLA is of significant concern to Pasco County because not all agencies operating at 800 MHz will reband together. Therefore, to avoid stranding any user operating on this channel that may be party to a mutual aid response, it is necessary to provide for simultaneous operation on both old and new MA-FLA channel assignments during band reconfiguration. Since a mutual aid response to a man-made or natural disaster or other public safety threat may be provided by agencies outside of Pasco County, it is anticipated that Pasco County will continue to simultaneously operate old and new MA-FLA channel assignments until the statewide completion of MA-FLA reconfiguration.

For MA-FLA, M/A-COM proposes a temporary back-to-back repeater solution to maintain interoperability during the State of Florida reconfiguration period. This solution will be transparent to users and dispatchers alike. There will be no change in access, operation, or control of the affected channels. During reconfiguration, it will be possible for users to access the channel either on its original frequency assignment or its rebanded frequency assignment. Access and operation are preserved whereby dispatchers transmit simultaneously to users on original and rebanded assignments. Users may transmit on either assignment and be heard by the dispatcher and all users

regardless of frequency assignment received. Moreover, functionality will be retained over MA-FLA operations by providing dispatch control of repeater enable/disable exactly as it is today and prescribed by the State of Florida Law Enforcement Communications Plan.

The reconfiguration plan for the MA-FLA station is to replace the County's MASTR II repeater station with MASTR III repeater station and power supply provided by Sprint Nextel. The existing MASTR II repeater station will be retained during the reconfiguration period as swing equipment operating on the old MA-FLA channel assignment. The replacement MASTR III station equipment will be tuned to the new MA-FLA channel assignment. A Vega Rebanding Panel will also be provided by Sprint Nextel as swing equipment to enable simultaneous operation on old and new frequency assignments.

Upon conclusion and acceptance of the reconfiguration project, the swing equipment for MA-FLA can be easily removed with little disruption to service and shipped to Sprint Nextel.

Pasco County also operates a transportable Mutual Aid system that is normally stored at New Port Richey. It consists of a trailer equipped with four M/A-COM MASTR-III conventional repeaters, a 100 foot crank-up tower, and generator.

M/A-COM will reprogram and retune the transportable MASTR-III base stations and associated combiner to operate on the rebanded frequency assignments for MA-FLA and NPSPAC Mutual Aid Channels I-TAC-2, I-TAC-3, and I-TAC-4. MA-FLA and NPSPAC Mutual Aid will be reconfigured at separate times in accordance with statewide and regional reconfigurations, respectively.

MA-FLA frequency reprogramming of subscriber equipment will occur simultaneously with EDACS trunked system reprogramming (Touch 1). NPSPAC Mutual Aid frequency reconfiguration will occur at the time of regional reprogramming, which is estimated to coincide with EDACS trunked system cutover.

Table 4 -- Conventional Mutual Aid System Frequencies

Assigned Channel Designation		Existing		Proposed	
Transportable Site	Fixed Site	TX	RX	TX	RX
State of Florida Mutual Aid	State of Florida Mutual Aid	853.3875	808.3875	854.6375	809.6375
I-TAC2		867.0125	822.0125	852.0125	807.0125
I-TAC3		867.5125	822.5125	852.5125	807.5125
I-TAC4		868.0125	823.0125	853.0125	808.0125

Conventional Equipment Reconfiguration

In addition to the conventional Mutual Aid systems, two other conventional systems operating on lower 120 frequencies at Dade City are proposed to be rebanded.

M/A-COM will replace the EF Johnson base station and duplexer located at the Dade City site with a MASTR III station, power supply, duplexer, and equipment cabinet configured for operation on the rebanded frequency assignment.

M/A-COM will replace the existing MASTR-II base station located at the Edwinola site in Dade City with MASTR III equipment tuned to the rebanded frequency assignment. Sprint Nextel will provide the replacement MASTR III base station and power supply.

Table 5 – Other Conventional System Frequencies

Repeater Designation	Existing		Proposed	
	TX	RX	TX	RX
EF Johnson Dade City Site	851.8125	806.8125	858.8125	813.8125
M/A-COM MASTR II Edwinola Site	853.0375	808.0375	854.4875	809.4875

Functional Acceptance Verification

Once the system has been reconfigured, functional acceptance verification will be performed per the enclosed Acceptance Test Procedures (ATP) document as suggested in section 4.6 customer's *Rebanding Issues Document.* The ATP is submitted with this work plan to show general procedures and equipment needed to conduct verification of features and functions. Final ATP procedures will be approved by M/A-COM and the County.

RF Coverage-Coverage Tests & Measurements

M/A-COM recognizes that public safety users have stringent expectations for system reliability, radio coverage and audio quality Therefore, in addition to functional acceptance verification procedures, procedures are also provided for:

1. Coverage testing for the Simulcast System that will also be performed in accordance with Method 3 guidelines from the Transition Administrator.
2. Repeater site measurements will also be performed for the conventional and Mutual Aid systems in accordance with Methods 1 guidelines from the Transition Administrator.

Details of these procedures are discussed in the coverage Acceptance Test Procedures (ATP) accompanying this proposal.

No coverage guarantees are offered with this recommendation. If performance is less than acceptable to the County, M/A-COM will provide recommendations for corrections. The cost of any corrective action resulting from the reconfiguration must be negotiated by the County with Sprint-Nextel. If the

radio users experience reduction or degradation of radio coverage after system reconfiguration, M/A-COM will prepare, at County/Nextel expense, a proposal to return the coverage to the pre-reconfiguration levels as shown by the pre-rebanding coverage measurements, to the extent practical.

Simulcast-Coverage Testing
Pre-reconfiguration baseline and post-reconfiguration performance testing for both signal level and Voice Audio Quality (VAQ) will be performed. If possible, signal level testing, the test routes and locations, as identical as possible to those in the County's original-system coverage acceptance test, will be replicated. Test results will be documented and provided to Pasco.

Coverage testing will include the following:

- Signal Level Testing - On-street coverage shall be measured using automated signal level test equipment. The County shall furnish a test vehicle and route drivers for the purpose of coverage verification. The vehicle will be equipped by M/A-COM with a multi-channel signal logging device, GPS receiver and file management computer. The actual test route driven throughout the service area shall encompass the entirety of Pasco County and will be, to the nearest extent possible, equivalent in scope to the coverage tests performed when the system was originally commissioned.
- Audio Quality Testing - In order to verify that simulcast performance has not been degraded in the overlap regions only, two voice audio quality tests will be performed, one prior to the reconfiguration and a second after. The intent is to perform these tests in the most efficient and cost effective manner possible while still meeting the goal of verifying equivalent simulcast performance.

Conventional and Mutual Aid Systems - RF Coverage-Site Transmit Power Measurements
Prior to reconfiguring the site, measured losses for each component are recorded including the transmit power entering the transmission line. The measurements should include the return loss of the transmission line and antenna. After reconfiguration, the same measurements are made and compared to the prior measurements. If the two sets of measurements are comparable, then coverage will be comparable. M/A-COM will provide results of both sets of measurements for the customer's evaluation.

At this stage, functional acceptance verification procedures will be conducted for customer comparative assessment. Measurement results will be provided to the County for information only. No coverage guarantees are offered with this recommendation. If performance is less than acceptable to the County, M/A-COM will provide recommendations for corrections. The cost of any corrective action resulting from the reconfiguration must be negotiated by the County with Sprint-Nextel. If the radio users experience reduction or degradation of radio coverage after system reconfiguration, M/A-COM will prepare, at County/Nextel expense, a proposal to return the coverage to the pre-reconfiguration levels as shown by the pre-rebanding coverage measurements, to the extent practical.

Reconfiguration Schedule Summary

M/A-COM has included a detailed reconfiguration schedule highlighting projected start and completion times for various tasks. Please refer to the Project Schedule, located under the Project Schedule tab of this proposal.

Planning Phase Costs

M/A-COM is not a party to any Planning Funding Agreement between Pasco County and Sprint-Nextel.

Project Management

Project Implementation Team

Through the experience of implementing numerous communication systems throughout the world, M/A-COM understands the importance of establishing a cohesive project team. Our core project team will consist of a Project Manager (PM), Quality Assurance Manager (QAM), System Engineer (SE), and our Southeast Service Center Manager. M/A-COM's management team, engineering resources, and organizational support will diligently strive to ensure a smooth reconfiguration of Pasco County's trunked simulcast, conventional, and mutual aid systems.

Project Manager (PM)

M/A-COM will assign a project manager to control the County's communication project from the beginning of the project through acceptance. The support from procurement, manufacturing, and order logistics operations will enable the project manager to ensure that the materials, equipment, and services are ordered, shipped, and provided in a timely manner.

The PM will be responsible for developing schedules, monitoring progress, providing necessary progress reports, and taking the actions needed to ensure that schedule compliance is achieved. The PM will also be responsible for overall project cost and processing any necessary contract changes.

Quality Assurance Manager (QAM)

The Quality Assurance Manager will be responsible for planning and coordinating the installation, and acceptance verification of the County's rebanding project. The QAM will report directly to the project manager and will be the local day-to-day on-site contact to the County's designated representative. The QAM will provide on-site supervision of installation teams and coordinate work among installers, subcontractors, and the County's organizations associated with the project. The QAM will initiate appropriate action, including active participation, as required, to ensure the system is installed according to the schedule and specifications.

System Engineer (SE)

M/A-COM will assign a system engineer who will have full technical responsibility for the radio system reconfiguration and optimization. The SE will participate in all review meetings and provide technical support to the project manager.

M/A-COM's Southeast Regional Service Center

M/A-COM proposes to reband the County's radio system utilizing the services of M/A-COM's Gulf Coast Regional Service Center. Mr. Carl Noack will provide a team of technicians to ensure the successful reconfiguration and assessment of the project. Where appropriate, M/A-COM Authorized Service Center subcontractors will be utilized to ensure the highest quality of workmanship and timely execution of the County's radio system. The Service Center pertinent information is listed below:

Mr. Carl Noack
South East Regional Service Manager
119 Mulberry Lane
Pass Christian, Ms. 39571 813-765-3664

The Field Service Manger will work with the QAM to have installers and technicians on site when needed. The Field Service Manager will also provide technicians to participate in the running of any functional acceptance verification and coverage measurements per the Acceptance Test Procedures (ATP).

Notice to Proceed

The project begins with M/A-COM receiving a written notice to proceed from the County. Under the direction of the project manager, the M/A-COM team will meet with Pasco County's team to develop detailed target plans to meet contractual obligations, implementation schedule, payment dates, and other key milestones.

M/A-COM's System Engineering implementation team will review the system plans and assess the impact of the rebanding. The System Engineering team will incorporate these reviews into their Customer Design Review presentation to assist the County in understanding the process and results of the proposed reconfiguration.

Customer Design Review

The Customer Design Review (CDR) meeting will be held to review the important elements of the rebanding plan and to explain key milestones of the project schedule. The CDR process will finalize the infrastructure equipment lists as well as review the re-channelization approach for Pasco County's radio systems. All changes agreed upon during the CDR process will be documented through the Change Order process. Following the County's approval, M/A-COM will deliver a final system design document.

M/A-COM Proposal Assumptions

M/A-COM's proposal is based on the information obtained from the specification, the information on hand from the various system installations and from prior experience of dealing with Sprint-Nextel on other rebanding opportunities.

- M/A-COM will work with the County's representatives to develop a plan to program/reprogram subscriber radio units with the replacement frequencies.
- M/A-COM and its authorized service providers will replace the County's EDACS trunked simulcast system for operation on rebanded channel assignments in conformance with all FCC levels or specifications.
- M/A-COM and its authorized service providers will reprogram and retune MASTR-III conventional mutual aid base stations to the rebanded channel assignments in conformance with all FCC levels or specifications. For reconfiguration of conventional the Mutual Aid MASTR-II base station, Sprint Nextel will provide replacement MASTR III base station and power supply to operate on the rebanded channel assignment, which will be installed by M/A-COM.

- M/A-COM will reprogram the existing subscriber radios in the Pasco County radio fleet that are capable of being programmed on the rebanded channel assignments. Since M/A-COM keeps no record of upgrades the customer may have installed in the field, the list may need to be confirmed.
- Those subscriber radios not capable of being reprogrammed will be replaced with radios of similar functionality programmed with the rebanded channel assignments. Sprint Nextel will provide the replacement radios to the County.
- If Sprint Nextel does not have replacement radios available, the County will work with Sprint Nextel to reach agreement on the quantities of radios needed, and have Sprint Nextel place orders with M/A-COM for the replacement radios.
- M/A-COM will work with the County to develop a project timeline that will efficiently allow for the rebanding process with minimal impact on current operations.
- It is M/A-COM's understanding that Sprint Nextel will prepare the FCC documents for the County in regard to the rebanded channel assignments. However, M/A-COM has included services to provide permits and licenses for the rebanding process.
- M/A-COM will perform functional verification as described in the Acceptance Test Procedure (ATP).
- M/A-COM will perform pre and post Method 3 coverage testing as defined by the 800 MHz Transition Administrator, to demonstrate comparable performance of the trunked simulcast infrastructure. For conventional infrastructure, M/A-COM will perform Method 1 coverage testing to assure performance comparable to the equipment's pre-rebanded state. M/A-COM offers no coverage guarantees in either case.
- The performance of the functional verifications and the before and after coverage testing are the only assessments that M/A-COM will provide.
- M/A-COM will work with the County to develop plans that will minimize disruptions to current operations. Not receiving radios on a timely basis or work performed on an off-day shift may cause additional costs to be incurred.
- As part of this proposed frequency reconfiguration effort, M/A-COM has quoted maintenance services for replaced infrastructure commensurate with the warranty period. Additionally, M/A-COM will not be responsible for any latent deficiencies resulting with existing equipment which is retuned. M/A-COM will perform the acceptance verification as defined in the functional ATP. If remedial action is required, M/A-COM will help identify the source of the problem. If a replacement part is not functioning properly, M/A-COM and the County will notify Sprint Nextel of the need for a new replacement part or product. M/A-COM and County will develop a verification procedure that is acceptable to Sprint Nextel and the TA for authorized payment.
- Sprint Nextel will provide replacement radios where required.
- Pasco County will be responsible for any backhaul connectivity circuits (microwave, T1, leased lines, fiber, etc.) between the RF sites, simulcast control point, and the dispatch/switch site.
- In order to affect its rebanding plan, M/A-COM has included structural analysis in its cost estimate for determining the feasibility of adding new antenna systems to existing towers. M/A-COM has also provided for acquiring associated permits and licenses if the need arises.

- M/A-COM will provide additional shelters at all three RF sites. This will include concrete shelters, foundation, electrical system, UPS, interior single point ground system, generator with ATS and fuel tank. M/A-COM will also provide a cable bridge from the tower to the additional shelter to be mounted at the cable entry port. M/A-COM will construct an exterior ground system around the shelter that will tie into the tower ground along with the existing shelter and other items in the compound.

Subscriber Equipment Reconfiguration

Programming all 2,266 radios with the new rebanded frequency set must first be accomplished prior to cutover to reconfigured infrastructure sites. The following advisory recommendations are provided to ensure successful radio replacement and reprogramming. Please view them as prerequisites that are essential for the successful, timely, and cost-effective implementation of Pasco County's rebanding project.

It is assumed that Pasco County:

- Will be responsible for providing environmentally protected locations (e.g. garage bays) to M/A-COM for the purpose of removing and installing mobile radios. Two locations are required for East County and West County, respectively.
- Will be responsible for scheduling subscriber users to deliver radios to equipment replacement/reprogramming locations.
- Will be responsible for rescheduling subscriber no-shows; accommodating no-shows is subject to additional costs to reschedule and perform work.
- Will provide all desktop control station locations with address, detailed configurations, and access for each.

It is assumed that M/A-COM:

- Will be responsible for removal, installation and programming of radios as applicable.
- Will be responsible for storage of the 816 replacement radios provided by Sprint-Nextel and storage of the removed equipment pending return to Sprint-Nextel.
- Will be responsible for providing environmentally controlled locations to reprogram mobile and portable radios.
- Will be responsible for saving all radio profile data and submitting templates to Pasco County at the end of reconfiguration.
- Will be responsible for returning removed equipment and unused replacement radios to Sprint-Nextel.

Project Management

The table below describes the specific tasks and costs associated with managing and administering the reconfiguration of subscriber equipment.

Table 6 -- Subscriber Equipment Project Management Reconfiguration Costs

Task	Effective Man-Days	Man-Day Rate	Cost
Project Management	100	$1,400	*
Project Management (Service Shop)	45	$1,775	$79,875

*M/A-COM Project Management costs are now handled on a corporate level with Sprint, therefore all costs associated with the assigned Project Manager have been removed from this proposal.

Travel Costs

Travel costs for subscriber equipment reconfiguration are itemized in the table below included in the total cost.

Table 7 -- Subscriber Equipment Reconfiguration Travel Costs

Description	Number of Units	Unit	Rate	Number of Units
Project Management T&L	8	Trips	$1005	*
Project Management T&L (Service Shop)	15	Days	$1,427.10	$21,407.00
Quality Assurance Manager T&L	4.7	Months	$3685	$17,319.50
Technician T&L Touch 1 (6 techs)	50.5	Days	$262.70	$79,598.10
Technician Vehicles Touch 1 (6 vehicles)	50.5	Days	$106.50	$32,269.50
Technician T&L Touch 2 (6 techs)	28	Days	$262.70	$44,133.60
Technician Vehicles Touch 2 (6 vehicles)	28	Days	$106.50	$29,820.00

*M/A-COM Project Management costs are now handled on a corporate level with Sprint, therefore all costs associated with the assigned Project Manager have been removed from this proposal.

Subscriber Reconfiguration Method

This section identifies the tasks and costs required to prepare and reconfigure the subscriber equipment.

1. County will provide all subscriber user profile configurations.
2. M/A-COM will replace all non-configurable mobile and portable radios with Sprint-Nextel provided comparable radio replacements. The County will organize and schedule vehicles for replacement radios and deliver vehicles to County designated facilities for installation. The County is responsible for rescheduling "No Shows" in a timely manner that will not delay ongoing retuning and replacement activities.

3. M/A-COM will program new rebanded frequency sets into mobile and portable radios. County will be responsible for scheduling and gathering radios at centralized locations – East and West County.
4. M/A-COM will replace all non-configurable control stations, and reprogram/retune all control stations that are reconfigurable at sites of installation.
5. M/A-COM will reprogram subscriber equipment in two "touches." The first touch will begin at such time that reprogramming of the fleet will be accomplished just prior to cutover to reconfigured non-NPSPAC infrastructure. This touch will reprogram the frequency sets associated with Lower 120 and Expansion Band channels. Special consideration will be given to the reprogramming of users who operate on the County and Dade City conventional channels to ensure these users suffer only minimal downtime with respect to overall subscriber reprogramming and infrastructure reconfiguration. It is M/A-COM's understanding that these users will use the EDACS simulcast system during the reconfiguration of their conventional channels of communications.
6. The second touch to subscriber equipment will occur at the time of regional NPSPAC Mutual Aid reconfiguration, which is estimated to occur after the County's Lower 120 and Expansion Band reconfigurations. This touch will reprogram the subscriber frequency sets for NPSPAC Mutual Aid.

Subscriber Equipment Inventory

Table 8 below presents a listing (provided by Tusa Consulting Services) of all subscriber radio equipment currently in use by Pasco County and depicts which models need to be reprogrammed or replaced. Replacement units are to be provided by Sprint-Nextel. Accessories for replacement radios such a battery chargers, spare batteries, belt clips, speaker-microphones, dual control heads, data cables, etc. were not provided in the customer specification (as indicated in Table 9 below). Accessory types and quantities must be determined by the County and submitted to Sprint-Nextel so that these items can be provided.

Blocks which are highlighted in TAN indicate radios that must be replaced and the replacement model number is indicated based upon the latest information supplied by M/A-COM. Blocks which are highlighted in YELLOW are those units that can be reprogrammed. Finally equipment, which has a block highlighted in GREEN is reprogrammable for NPSPAC 806-809 MHz once a modification is made to "ProGrammer" supplied by M/A-COM. Out of the 2,266 existing radio units, approx. 698 will must be replaced (286 mobiles, 406 portables, and 6 desktop control stations). The remaining 1,568 subscriber radios must be reprogrammed or modified.

Table 8 – Pasco County Subscriber Radio Equipment Inventory

Existing Radio	Co. & Muni (Qty)	Sheriff (Qty)	Total	Replace	Reprogram	Modify with Programmer	Mobile or Portable or Control Sta.
500M	82	24	106			Modify	Mobile
700P	69	414	483		Reprogram		Portable
725M	24	195	219		Reprogram		Mobile
FMD	3	5	8	Replace			Mobile
JAGUAR-725M	10		10		Reprogram		Mobile

Existing Radio	Co. & Muni (Qty)	Sheriff (Qty)	Total	Replace	Reprogram	Modify with Programmer	Mobile or Portable or Control Sta.
LPE-200	75		75			Modify	Portable
LPE-50	8		8			Modify	Portable
M7100	15	55	70		Reprogram		Mobile
MDX	156	67	223	Replace			Mobile
MDX-Desk		1	1	Replace			Control Sta.
MPA	223	92	315	Replace			Portable
MPD	88	3	91	Replace			Portable
MRK	22	84	106			Modify	Portable
MTD	118		118		Reprogram		Mobile
ORION	113	30	143			Modify	Mobile
ORION-Desk	4		4			Modify	Control Sta.
P5100	51	11	62		Reprogram		Portable
P700 (700P)	4		4		Reprogram		Portable
P7100	85	75	160		Reprogram		Portable
RANGR	1	54	55	Replace			Mobile
RANGR-Desk	3	2	5	Replace			Control Sta.
TOTAL			2266				

The tables below identify the required subscriber radio accessories requiring replacement.

Table 9 – Estimated Portable Accessories Requiring Replacement
(To be determined by customer)

Item(s)	Qty	To Be Replaced By	Cost
Speaker Microphone / Speaker Microphone Antenna (SMA)	TBD	Sprint-Nextel	n/a
Antenna	TBD	Sprint-Nextel	n/a
Spare Extra High Capacity Battery	TBD	Sprint-Nextel	n/a
Single Charger	TBD	Sprint-Nextel	n/a
Vehicular Charger	TBD	Sprint-Nextel	n/a
Belt Clip	406	Sprint-Nextel	n/a
D-Swivel Belt Loop	406	Sprint-Nextel	n/a

Table 10 -- Estimated Mobile Accessories Requiring Replacement
(To be determined by customer)

Item(s)	Qty	To Be Replaced By	Cost
Standard MIC	TBD	Sprint-Nextel	TBD
Dual Control Heads	TBD	Sprint-Nextel	TBD

Data Cables	TBD	Sprint-Nextel	TBD

Table 11 – Estimated Desktop Control Stations Requiring Replacement

Item(s)	Qty	To Be Replaced By	Cost
Control Station, Tone Remote Control	6	M/A-COM	To Be Provided By Sprint
Desktop MIC	6	M/A-COM	To Be Provided By Sprint

Subscriber Equipment Reconfiguration Costs

This section identifies the subscriber reconfiguration tasks and costs required to prepare and reconfigure the subscriber equipment.

Table 12 -- Subscriber Reconfiguration Labor Tasks and Costs

Task	Effective Number of Man-Days	Man-Day Rate	Cost
Touch 1Programming 2266 Radios (6 techs)	23	$1,441.30	$198,899.40
Touch 1 Programming 6 Replacement Control Stations	1	$1,441.30	$1,441.00
Touch 1 MIA 10% (227 Radios) 6 techs	2.5	$1441.30	$21,619.50
Touch 1 Install and Remove 286 Replacement Mobiles 6 Techs	24	$1562.00	$224,928.00
Remove and Install 6 Replacement Control Stations	6	$1,441.30	$8,648.00
Touch 2 -- Reprogram 2,148* Mobile and Portables 6 techs	23	$1,441.30	$198,899.40
Final Configuration – Reprogram 10 Ctrl Stations	5	$1,015	$5,075.00
System Engineering - Installation and Personality Development Support	3	$1400	$4200.00
Quality Assurance Manager	94.5	$1065	$100,642.50

*Note: This step is to modify the frequency set associated with the NPSAPC Mutual The 118 MTD mobiles are not included in this personality replacement since they are not capable of NPSPAC channels

Infrastructure Equipment Reconfiguration

Project Management

This section identifies the tasks and costs associated with managing and administering the reconfiguration of the infrastructure equipment and systems.

Table 13 -- PM Reconfiguration Tasks and Costs

Task	Effective Man/Days	Man/Day Rate	Cost
Project Management-*Simulcast System*	260	$1,400	*
Project Management-*Simulcast System (Service Shop)*	10	$1,775	$17,750
Project Management-*Dade City Conventional*	2	$1,400	*
Project Management-*Dade City Conventional (Service Shop)*	1	$1,775	$1,775
Project Management-*Pasco Co. Conventional*	2	$1,400	*
Project Management-*Pasco Co. Conventional (Service Shop)*	1	$1,775	$1,775
Project Management-*Mutual Aid Site*	2	$1,400	*
Project Management-*Mutual Aid Site (Service Shop)*	1	$1,775	$1,775
Project Management-*Mutual Aid Transportable*	2	$1,400	*
Project Management-*Mutual Aid Transportable (Service Shop)*	1	$1,775	$1,775
Project Management-*NPSPAC MA Transportable*	2	$1,400	*
Project Management-*NPSPAC MA Transportable (Service Shop)*	1	$1,775	$1,775
Quality Assurance Manager	9 months	$21,300	$191,700

*M/A-COM Project Management costs are now handled on a corporate level with Sprint, therefore all costs associated with the assigned Project Manager have been removed from this proposal.

Travel Costs

For simplicity, the table below identifies all the travel and lodging (T&L) costs associated with infrastructure reconfiguration. Travel expenses to Pasco County, FL by various project personnel are itemized below.

Table 14 – Infrastructure Reconfiguration Travel Costs

Description	Number of Units	Unit	Rate	Cost
Simulcast System				
Project Management T&L	20	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	140	Days	$262.70	$36,778
System Engineering T&L	40	Days	$320.25	$12,810

Quality Assurance Manager T&L	9	Trips	$3,685	$33,165
City of Dade City Conventional System				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525
Pasco County Conventional System				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525
System Engineering T&L	2	Days	$320.25	$640.50
Florida Mutual Aid Conventional Site				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525
System Engineering T&L	2	Days	$320.25	$640.50
Florida Mutual Aid Conv. Transportable Site				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525
System Engineering T&L	2	Days	$320.25	$640.50
NPSPAC Mutual Aid Conv. Transportable Site				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525

*M/A-COM Project Management costs are now handled on a corporate level with Sprint, therefore all costs associated with the assigned Project Manager have been removed from this proposal.

RF Site Infrastructure Reconfiguration

The RF site infrastructure will be reconfigured in the following order:

- Florida Mutual Aid Conventional System – Site

- Florida Mutual Aid Conventional System – Transportable
- Trunked EDACS Simulcast System
- Pasco County Conventional System
- City of Dade City Conventional System
- NPSPAC Mutual Aid Conventional Systems

Mutual Aid Conventional Systems

As previously stated, the Florida Mutual Aid (MA-FLA) station will be reconfigured at the outset of the infrastructure reconstruction of the Pasco County project. This Mutual Aid system uses a shared channel through which a response to an emergency or disaster situation may be facilitated by many diverse agencies.

As stated above, Pasco has two MA-FLA systems. One is a fixed MASTR II single channel site at the Darby tower. The second MA-FLA system is part of the County's 4-channel transportable MASTR III transportable system (1 channel MA-FLA, and 3 channels NPSPAC Mutual Aid). The transportable system is normally stored in New Port Richey. It consists of a trailer equipped with four M/A-COM MASTR-III conventional repeaters, a 100 foot crank-up tower, and generator.

For the transportable systems, M/A-COM will reprogram and retune MASTR-III base stations to rebanded channel assignments in conformance with all FCC levels or specifications. For with the MA-FLA MASTR-II base station, Sprint Nextel will provide MASTR III base station equipment programmed to operate on the rebanded frequency assignments.

The table below summarizes the key equipment to be reconfigured and added in order to maintain Mutual Aid functionality during the reconfiguration.

Table 15 -- Mutual Aid Equipment Reconfiguration

System	Existing Equipment	New Equipment	Rationale
Fixed Site (Darby)	(1) MASTR II 1-channel Conventional Repeater	Vega Back-to-Back Repeater Interface (Swing) & Mastr III Repeater, Power Supply , and Cabinet (Replacement)	Existing MASTR II Mutual Aid conventional repeater replaced with MASTR III equipment provided by Sprint-Nextel. Vega Rebanding Panel will allow Pasco units and mutual aid responders to operate on newly allocated frequencies. Both existing and replacement stations will now be associated with the replacement transmitter combiner for the Darby site. Back-to-back repeater interface will be provided by Sprint Nextel, installed by M/A-COM and temporarily deployed until completion of statewide rebanding of MA-FLA.

System	Existing Equipment	New Equipment	Rationale
Transportable Site	(1) MASTR III 1-channel Conventional Repeater		Retune repeater and combiner. No change to the antenna system.
	(3) MASTR III Conventional Repeaters		Retune repeaters and combiner. No change to the antenna system.

State of Florida Mutual Aid Conventional (Channel 96) – Darby Site

The 800 MHz Statewide Mutual Aid channel (M/A-FLA), 808/853.3875 MHz is installed and in operation at the Darby TX/RX site. This station will be replaced with a MASTR III repeater station configured to operate on 809/854.6375 MHz as described earlier. The existing station is a GE MASTR II 800 MHz conventional repeater that utilizes the simulcast system's antenna system, including transmitter combiner and receiver multicoupler. For MA-FLA, M/A-COM proposes a temporary back-to-back repeater solution using both old and new repeater stations to maintain interoperability during reconfiguration. This solution will be transparent to users and dispatchers, alike. There will be no change in access, operation, or control of the affected channels. During reconfiguration, it will be possible for users to access the channel either on its original frequency assignment or its rebanded frequency assignment. Access and operation are preserved whereby dispatchers transmit simultaneously to users on original and rebanded assignments. Users may transmit on either assignment and be heard by the dispatcher and all users regardless of frequency assignment received. Moreover, functionality will be retained over MA-FLA operations by providing dispatch control of repeater enable/disable exactly as it is today and prescribed by the State of Florida Law Enforcement Communications Plan.

M/A-COM will relocate the existing M/A-FLA repeater operating on the old channel assignment (Channel 96) to the replacement equipment shelter at Darby and interconnect it with the replacement transmitter combiner and receiver multicoupler at the Darby site. At the same time, M/A-COM will install the replacement MASTR III repeater tuned to the new MA-FLA channel assignment (Channel 146). The two stations will then be interconnected on a back-to-back basis using a specialized Vega Rebanding Panel interface to enable crosspatch operation between the two stations and transparent control of the stations by the dispatcher. At the completion of the relocation of the existing MA-FLA system and installation of the replacement system and rebanding interface, M/A-COM will test functionality, and coverage pursuant to Method 1 coverage testing.

M/A-COM's back-to-back repeater solution for the MA-FLA system at Darby will consist mainly of off-the-shelf products. The existing station will continue to be used during the reconfiguration period as swing equipment operating on the old MA-FLA channel assignment.. At the outset of the reconfiguration process, the replacement base station will be installed on the new frequency assignment on Channel 146 (854.6375 MHz). In order to provide a fully interoperable solution on old and new frequency assignments during the reconfiguration period, M/A-COM will add swing equipment to the Mutual Aid channel. The temporary equipment items will include one VEGA Model SYS000010000 Rebanding Panel. As part of the replacement equipment, M/A-COM will install one cabinet to house the replacement MASTR III repeater station , power supply and Vega equipment. All

swing equipment will be operational for the duration of the statewide rebanding of MA-FLA Channel 96.

It is the VEGA adapter panel that provides the functionality required for the parallel operation of two base stations and the back-to-back repeater interface. Operation is such that tone remote control of the MA-FLA channel by the dispatcher causes both old and new frequency assignments to key and transmit simultaneously. In the reverse direction, subscribers working through either the old or new channel assignments would be heard by all parties to a particular mutual aid event. Dispatcher control will be maintained at all times where the dispatcher will have priority over subscriber communications and the capability to enable and disable the repeat function of the various channels – all via standard tone control with no modification to operational procedures in place today.

The VEGA SYS000010000 Rebanding Panel which consists of a pair of IP-223 Dual IP Remote Adapter Panels can be described as an intelligent Tone Remote Adapter that, as a minimum, may extend (EIA) tone remote control from a dispatch console position to a remotely located base station via an IP communications circuit. In typical use, one IP-223 unit resides at the dispatch location and operates in Console Mode converting the console's analog keying tones into Ethernet traffic. At the remote base station location, a second IP-223 operating in Tone Mode will convert the IP data packets back to tone control to key and control the base station. Each VEGA IP-223 is factory-equipped to control up to two base stations and may additionally be configured in Crosspatch Mode to provide interoperability between two connected base stations or, for that matter, any base station(s) connected to the IP network.

A specialized configuration of IP-223 will be utilized for rebanding the MA-FLA channel operated by Pasco County. The IP-223 system is not used in its traditional role of extending base station control via an IP network. Rather, it is employed to provide parallel control of two base stations operating with old and new channel assignments and, additionally, will provide crosspatch communication between the two base stations. In this configuration, two IP-223 panels are still required, but they are both collocated with the mutual aid base stations. One IP-223 operates in Console Mode and receives dispatcher audio and control tones from the mutual aid connectivity network. The second IP-223 is configured for Tone Mode and is interfaced with the two base stations. The two IP-223 panels are connected back-to-back using their Ethernet interfaces. A further specialization of the IP-223 equipment is that the repeater enable and disable functionality will be mapped to also enable and disable the crosspatch of the two base stations. Therefore, when the dispatcher disables the repeat function of the base stations, the crosspatch between stations will be disabled as well so that there is no potential for inadvertent keying of stations when not is use. This specialized functionality requires a one-time modification of the standard programming code contained within the IP-223, which has already been commissioned by Sprint Nextel.

The remaining County Mutual Aid facilities will be reconfigured as follows:

State of Florida Mutual Aid Conventional (Channel 96) – Transportable System

- Some downtime to reband is acceptable.
- Station is MASTR III. M/A-COM will reprogram and retune station to 854/809.6375 MHz.
- Station shares frequency standard, 5-channel combiner, TTA and receiver multicoupler with NPSPAC Mutual Aid stations (I-TAC-2, I-TAC-3, and I-TAC-4).

- A common Brandywine Communications Model QFS-106 Frequency Standard appears to provide frequency reference to State of Florida Mutual Aid station and each of three NPSPAC Mutual Aid channels.
- Combiner is dbSpectra DB8062F5-B 5-channel combiner currently configured as follows:

	868.0125
867.5125	867.0125
858.8125	853.3875
Antenna Port	

Only four of five combiner channels are currently in use. The channel tuned to 858.8125 MHz is currently unused. M/A-COM will retune this combiner channel to the rebanded channel assignment for the Florida Mutual Aid Channel (854.6375). The old Florida Mutual Aid channel assignment in combiner (853.3875) as well as originally assigned frequencies for TAC-2 (867.0125), TAC-3 (867.5125), and TAC-4 (868.0125) will be retained at this time. Combiner will now be configured as follows:

	868.0125
867.5125	867.0125
854.6375	853.3875
Antenna Port	

- Following reconfiguration of the Florida Mutual Aid channel, M/A-COM will test functionality, and coverage pursuant to Method 1 coverage testing.

During the Wave 3, Stage 2 reconfiguration period (NPSPAC), I-TAC-2, I-TAC-3, and I-TAC-4 will be retuned to new channel assignments.

NPSPAC Mutual Aid Conventional (I-TAC-2, I-TAC-3, and I-TAC-4) – Transportable System

- Some downtime to reband is acceptable.
- Stations are MASTR III. M/A-COM will reprogram and retune to newly assigned frequencies for I-TAC -2 (852.0125), I-TAC-3 (852.5125), and I-TAC-4 (853.0125). Stations are collocated in same cabinet as Florida Mutual Aid Channel described above.
- Station shares frequency standard, 5-channel combiner and receiver multicoupler with State of Florida Mutual Aid conventional channel.
- M/A-COM will retune combiner channels for I-TAC-2, I-TAC-3, and I-TAC-4 from old channels assignments to new rebanded channel assignments. Since the combiner manufacturer prescribes the lowest channels toward the antenna port, the combiner will be completely retuned. Combiner will now be in its final, rebanded configuration as follows:

	TBD
854.6375	853.0125

852.5125	852.0125
Antenna Port	

- Following reconfiguration of the NPSPAC Mutual Aid channels, M/A-COM will test functionality, and coverage pursuant to Method 1 coverage testing.
- Reconfiguration will occur either at end of Wave 3 rebanding period or at time of Hillsborough County NPSPAC reconfiguration. Requires remobilization.

Other Conventional Systems

The reconfiguration of two Lower 120 conventional systems is summarized as follows:

City of Dade City Conventional Channel - Edwinola Building

- Station is GE MASTR II and is an interim version between original MASTR II and MASTR IIe.
- Station located at top of stairwell of 8+ story apartment building. Walk up approximately two flights of stairs from 8th Floor, which is accessible by elevator.
- Some downtime to reband is acceptable beginning midway between the reconfiguration of City of Dade City subscribers.
- At the appropriate time during subscriber reconfiguration, M/A-COM will replace existing MASTR II equipment with MASTR III equipment consisting of repeater station and power supply and programmed to rebanded channel assignments.
- Duplexer is DB Products manufacture, 2-cavity, GE Part No. 19C307190-P1. M/A-COM will retune duplexer in field to rebanded channel assignments.
- M/A-COM will coordinate reconfiguration of repeater system with the County and test functionality, and coverage pursuant to Method 1 coverage testing.

Pasco County Conventional Channel - Dade City Site

1. Station is EF Johnson Repeater; vintage approx 1980. Essentially consists of two mobile units' chassis for TX and RX, respectively, TPL Power Amp and repeater control shelf. County reports this equipment uses crystallized channel elements. M/A-COM has no component parts for this equipment and no documentation and cannot reconfigure this equipment to its rebanded channel assignment. Accordingly, M/A-COM is proposing replacement of station with MASTR III equipment, including MASTR III repeater station, power supply, and cabinet.
2. Duplexer is Microwave Associates Model 7Z147 tuned for sub-bands 806-811 MHz and 851-856 MHz. No documentation is available. M/A-COM proposes replacement.
3. At the appropriate time during subscriber reconfiguration, M/A-COM will remove the existing repeater station, duplexer, and cabinet from operation and install the replacement repeater station, power supply, duplexer, and cabinet at the Dade City site.

4. M/A-COM will coordinate cutover to the replacement repeater system with the County and test functionality, and coverage pursuant to Method 1 coverage testing.

Table 16 – Other Conventional Equipment Reconfiguration

System	Existing Equipment	Replacement Equipment	Rationale
Fixed Site Dade City System (Edwinola Site)	(1) MASTR II 1-channel Conventional Repeater	Mastr III 1-channel Conventional Repeater Station and Power Supply	Per M/A-COM – Nextel Agreement, MASTR II equipment will be replaced with MASTR III.
Fixed Site Pasco Co. System (Dade City Site)	EF Johnson 1-channel Conventional Repeater	Mastr III 1-channel Conventional Repeater Station, Power Supply, Duplexer, and Equipment Cabinet	M/A-COM cannot reconfigure this station; replacement recommended for station and duplexer. No change to the antenna system is required.

EDACS Reconfiguration for Pasco County

The existing EDACS 3-Site, 8-Channel Simulcast consist of the following:

- Channels 1-5 are early Mastr II.
- Channel 6 is mid to late Mastr II.
- Channel 7 is Mastr IIe.
- Channel 8 is Mastr III, field modified to match Mastr II simulcast specifications, no documentation.

M/A-COM will replace all RF site and simulcast control point equipment pursuant to agreement between Sprint Nextel and M/A-COM.

Table 17 -- EDACS Reconfiguration Equipment

	Existing Model Number	Replacement Equipment	Rationale
Repeater Stations & Simulcast Control Equipment, 3-Site, 8-Channel Simulcast Trunking (Dade City, Darby, & New Port Richey Sites)	EDACS Electrocom Simulcast System	EDACS GPS Simulcast System configured in new shelters at all 3 sites	Retuning existing system represents significant risk to County's public safety operations.
Tx Combiner Dade City Site	TX/RX Systems	dB Spectra DB8062F8-B	New combiner is required to minimize down time and maintain crucial public safety traffic capacity and GOS.

	Existing Model Number	Replacement Equipment	Rationale
Tx Combiner Darby Site	TX/RX Systems	dB Spectra DB8062F11-B	New combiner is required to minimize down time and maintain crucial public safety traffic capacity and GOS. Combiner capacity is also provided for State of Florida Mutual Aid channel and temporary back-to back operation, and State Attorney channel.
Tx Combiner New Port Richey Site	TX/RX Systems	dB Spectra DB8062F8-B	New combiner is required to minimize down time and maintain crucial public safety traffic capacity and GOS.
Tower-Top Amplifier and Rx Multicoupler Dade City Site	TX/RX Systems	dB Spectra AT8TMA10R and DBCRNX-8AN	New multicoupler is required to minimize down time and maintain crucial public safety traffic capacity and GOS. Difficult to strip old multicoupler out of existing rack and re-rack into new configuration.
Tower-Top Amplifier and Rx Multicoupler Darby Site	TX/RX Systems	dB Spectra AT8TMA10R andDBCRNX-16AN	New multicoupler is required to minimize down time and maintain crucial public safety traffic capacity and GOS. Difficult to strip old multicoupler out of existing rack and re-rack into new configuration.
Tower-Top Amplifier and Rx Multicoupler New Port Richey Site	TX/RX Systems	dB Spectra AT8TMA10R andDBCRNX-8AN	New multicoupler is required to minimize down time and maintain crucial public safety traffic capacity and GOS. Difficult to strip old multicoupler out of existing rack and re-rack into new configuration.
Tx Antenna System Rx Antenna Dade City Site	RFS BMR-10 w/Andrew LDF6 RFS BMR-10 w/Andrew LDF5	RFS BMR-10 w/Andrew LDF6 RFS BMR-10 w/Andrew LDF5	Replacement antenna systems required to minimize down time and preserve coverage during transition to replacement system.
Tx Antenna System Rx Antenna System Darby Site	RFS BMR-10 w/Andrew LDF6 RFS BMR-12 w/Andrew LDF5	RFS BMR-10 w/Andrew LDF6 RFS BMR-12 w/Andrew LDF5	Replacement antenna systems required to minimize down time and preserve coverage during transition to replacement system.
Tx Antenna System Rx Antenna System New Site	RFS BMR-10 w/Andrew LDF6 RFS BMR-10 w/Andrew LDF5	RFS BMR-10 w/Andrew LDF6 RFS BMR-10 w/Andrew LDF5	Replacement antenna systems required to minimize down time and preserve coverage during transition to replacement system.

Table 18 – EDACS Combiner Configuration Table – Dade City

Combiner					
Existing Configuration			Proposed Configuration		
Channel	**Frequency**	**Separation**	**Channel**	**Frequency**	**Separation**
1	855.2250		1	855.2250	
2	855.8125	0.5875	2	855.8125	0.5875
3	856.2250	0.4125	3	856.2250	0.4125
4	856.8375	0.6125	4	856.8375	0.6125
5	857.8375	1.0000	5	857.8375	1.0000
6	858.8375	1.0000	6	858.3875	0.5500
7	859.8375	1.0000	7	858.8375	0.4500
8	860.8375	1.0000	8	859.8375	1.0000
Minimum Freq Spacing		0.4125	Minimum Freq Spacing		0.4125

Table 19 – EDACS Combiner Configuration Table – Darby

Combiner					
Existing Configuration			Proposed Configuration		
Channel	Frequency	Separation	Channel	Frequency	Separation
1	852.2625		1	852.2625	
2	853.3875	1.1250	2	853.3875	1.1250
3	855.2250	1.8375	3	854.6375	1.2500
4	855.8125	0.5875	4	855.2250	0.5875
5	856.2250	0.4125	5	855.8125	0.5875
6	856.8375	0.6125	6	856.2250	0.4125
7	857.8375	1.0000	7	856.8375	0.6125
8	858.8375	1.0000	8	857.8375	1.0000
9	859.8375	1.0000	9	858.3875	0.5500
10	860.8375	1.0000	10	858.8375	0.4500
			11	859.8375	2.3750
Minimum Freq Spacing		0.4125	Minimum Freq Spacing		0.4125

Table 20 – EDACS Combiner Configuration Table – New Port Richey

Combiner					
Existing Configuration			Proposed Configuration		
Channel	Frequency	Separation	Channel	Frequency	Separation
1	855.2250		1	855.2250	
2	855.8125	0.5875	2	855.8125	0.5875
3	856.2250	0.4125	3	856.2250	0.4125
4	856.8375	0.6125	4	856.8375	0.6125
5	857.8375	1.0000	5	857.8375	1.0000
6	858.8375	1.0000	6	858.3875	0.5500
7	859.8375	1.0000	7	858.8375	0.4500
8	860.8375	1.0000	8	859.8375	1.0000
Minimum Freq Spacing		0.4125	Minimum Freq Spacing		0.4125

The following is a step-by-step procedure for retuning the existing EDACS system. All outages will be coordinated beforehand with the County.

- Step 1 M/A-COM will add equipment shelters and emergency generator systems at the Dade City, Darby, and Newport Richey sites to accommodate the replacement simulcast control and RF station equipment.
- Step 2 The County will provision microwave and/or fiber circuits to provide one T1 circuit each between the Dade City Control Point site and Darby TX/RX site, the Dade City Control Point site and the New Port Richey TX/RX site, and the Dade City Control Point site and the CEC/IMC. The new TDM multiplex equipment will then be installed and tested by M/A-COM.
- Step 3 For the duration of the reconfiguration period, M/A-COM will reconfigure the Console Electronics Controller (CEC) as an Integrated Multisite Controller (IMC) with the necessary hardware to support the replacement simulcast system as an additional site. System software will be reconfigured as necessary to support this new interface and software licenses will be temporarily applied. At the appropriate time, M/A-COM will interconnect the IMC and the replacement simulcast control point.
- Step 4 M/A-COM will expand the existing Communications Site Director (CSD) to control an additional site (the replacement simulcast subsystem). At the appropriate time, M/A-COM will interconnect the CSD with the replacement simulcast control point via a County-provided 4-wire communications circuit. M/A-COM will provide RS232 asynchronous serial modems at each end of this link. Until cutover of County operations to the replacement simulcast subsystem, the existing CSD will remain at the existing simulcast control point. At a time agreed to by the County, M/A-COM will disconnect the CSD from the existing simulcast subsystem and relocate the existing CSD to the replacement simulcast control point.
- Step 5 M/A-COM will install the replacement control point equipment in the additional equipment shelter provided by M/A-COM at the Dade City site. Given the space constraints, condition, and disposition of the current control point location, M/A-COM will collocate the replacement control point with the replacement Dade City RF equipment in the additional shelter. Additionally, cost savings are realized when the simulcast control point is collocated with an RF site. During installation of the replacement control point, interconnection will be made with the IMC and the CEC.
- Step 6 M/A-COM will install the replacement simulcast site common equipment, RF base stations, antenna systems, tower-top amplifiers, receiver multicouplers and combiners in the additional shelters at Dade City, Darby, and New Port Richey sites.
- Step 7 At the Darby site, two additional conventional channels currently share the transmitter combiner with the EDACS trunked system. These are:
  - Pasco County's Florida Statewide 800 MHz Mutual Aid channel (MA-FLA - currently 808/853.3875)
  - State Attorney (currently 807/852.2625)

At this point in the trunked system reconfiguration at the Darby site, these stations may be reconfigured to their new rebanded channel assignments. The specific reconfiguration of the MA-FLA channel, which includes back-to-back repeater operation on old and new channel

assignments, is discussed under *Mutual Aid conventional Systems* earlier in this Statement of Work. With respect to the State Attorney conventional system, M/A-COM understands that this system will be reconfigured by others. M/A-COM will coordinate the County's system reconfiguration with the State Attorney and notify the State Attorney when the replacement transmitter combiner and receiver multicoupler are available for use. The State Attorney must relocate its repeater station to the replacement equipment shelter at the Darby site in order to make connection to the replacement combiner and receiver multicoupler, which will be tuned to the State Attorney's rebanded channel assignment.

- Step 8 The replacement EDACS simulcast subsystem components will be interconnected, configured, and tested to the extent possible without actually going on the air. For all testing relating to the commissioning of the replacement simulcast subsystem, the replacement system will be provisioned with a unique Site ID so that there will be no interference to operations on the existing EDACS system.
- Step 9 During periods of typically lower user activity, individual channels on the existing system (except Channel 6) will be disabled and removed from system use via the radio system's management terminal, CSD. The corresponding channel of the replacement simulcast system will be enabled, tested and aligned for proper simulcast operation countywide. During this time, proper trunked operation and connectivity to dispatch via the IMC will also be verified. This can be accomplished on a site-by-site basis utilizing specially programmed test portables and the new Channel 6 station operating as a control channel to effect a 2-channel trunked simulcast system. This process will be repeated for all channels except Channel 6, which is tested and aligned on its new frequency assignment without affect on existing trunked operations.
- Step 10 When Step 9 is complete, system operations will be transitioned to the replacement simulcast subsystem. Prior to cutover, the replacement system will be reprogrammed with the Site ID of the existing simulcast system. M/A-COM will station personnel at the three RF sites, IMC, and the CSD. Additionally, M/A-COM understands that County personnel will be stationed throughout the County to verify proper simulcast operation after system cutover. M/A-COM will provide a reliable means of communication that is independent of the trunked system between everyone involved in the cutover process. The cutover will require that system operations be disabled for a period of a few minutes; therefore it will be scheduled during a period of minimum system activity such as midweek between 2AM and 5AM. At the appointed time, the existing system will be disabled, the necessary configuration changes made to the CSD and IMC, and the replacement system enabled. At this time the replacement system will be quickly tested to be sure that it is operating properly. If any issues are uncovered during this initial functional testing, system operation will be reverted back to its original configuration on the existing system and the issues resolved prior to reattempting cutover.
- Step 11 Channel 6 will remain disabled until the completion of the reprogramming of all user equipment, after which it will be returned to the trunked frequency pool.
- Step 12 For a period to be agreed upon between the County and M/A-COM, the replaced simulcast RF subsystem will remain energized but disabled (except for the old Channel 6, which will be permanently removed from service) so as to be readily available as a backup in the event of early life failures or system issues that may manifest themselves on the replacement simulcast subsystem. Functional and coverage tests of the new system will take place during this period.

- Step 13 Upon notification and coordination with the County, M/A-COM will relocate the CSD from the old simulcast control point to the new simulcast control point.
- Step 14 The replaced simulcast RF and control point equipment will be decommissioned, dismantled, and removed by M/A-COM to a location to be designated by the County.
- Step 15 M/A-COM will convert the IMC back to a CEC to achieve comparable operation and capability of the pre-rebanded system.
- Step 16 M/A-COM will ship the replaced simulcast control and RF infrastructure equipment to Nextel.
- Step 17 M/A-COM will resolve any punch list items that may exist following system cutover. The Simulcast subsystem implementation and cutover is now complete.

Infrastructure Reconfiguration Costs

The table below itemizes the infrastructure equipment to be replaced by M/A-COM during infrastructure reconfiguration.

Table 21 -- Infrastructure Equipment Costs

Item(s)	Qty	Cost
RF Sites		
GPS Simulcast System	1	To be Provided by Sprint
Conventional Mastr III w/Duplexer (Pasco Co)	1	To be Provided by Sprint
Vega Back-to-Back Repeater Assy. (Mutual Aid-Darby	1	To be Provided by Sprint
Civils (Shelter, Generator, UPS, Antenna Hang, Other Services)	3	To be Provided by Sprint
Switching Site		
CSD Upgrade Package	1	To be Provided by Sprint
CEC Upgrade Package	1	To be Provided by Sprint

Table 22 – Infrastructure Labor Costs

Task	Effective Man-Hours	Man-Hour Rate	Cost
GPS Simulcast System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Order Processing, Drawing Updates, Meeting	928	$175	$162,400.00

Task	Effective Man-Hours	Man-Hour Rate	Cost
Support, Installation Support, Site Interconnect definition, Cutover Plan Support, Customer Meeting and Design Review Support, Site Civils Support			
EDACS / Mutual Aid Equip Reconfiguration (Service Shop)	1120	$156.20	$174,944
Functional Acceptance Verification Total Tasks included in estimate: Post Reconfiguration Verification Support, Simulcast alignment Testing and Verification	56	$175	$9800.00
Functional Acceptance Verification Total Tasks included in estimate: Post Reconfiguration Verification Support, Simulcast alignment Testing and Verification (Service Shop)	20	$248.50	$4,970
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review (Method 3)	64	$175	$11,200.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review (Method 3) (Service Shop)	8	$275.13	$2,201

Task	Effective Man-Hours	Man-Hour Rate	Cost
City of Dade Conventional System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	24	$175	$4200.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00
Task	**Effective Man-Hours**	**Man-Hour Rate**	**Cost**
County Conventional System			

Task	Effective Man-Hours	Man-Hour Rate	Cost
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	40	$175	$7000.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00
Task	**Effective Man-Hours**	**Man-Hour Rate**	**Cost**
State of FL Mutual Aid Conventional System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	68	$175	$11,900.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00
Task	**Effective Man-Hours**	**Man-Hour Rate**	**Cost**
State of FL Mutual Aid Transportable Conventional System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	56	$175	$9800.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00
Task	**Effective Man-Hours**	**Man-Hour Rate**	**Cost**

Task	Effective Man-Hours	Man-Hour Rate	Cost
NPSPAC Mutual Aid Transportable Conventional System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	32	$175	$5600.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00

Facilities Costs

No facility costs have been incorporated into this proposal.

Miscellaneous Components

No miscellaneous components are anticipated for the Pasco County reconfiguration.

Engineering and Verification

This section identifies the tasks and costs associated with system-wide planning, engineering and verification.

Table 23 – Planning Phase Labor Cost

M/A-COM System Engineering Planning Phase Support

GPS Simulcast

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review and Frequency Plan review	16	$175	**$2800.00**
Engineering and Implementation Total Tasks included in estimate: Tower Structural Requirement Development, SOW Development including cutover and acceptance plans. Review of interoperability migration	152	$175	**$26,600.00**
Customer Support Total Tasks included in estimate: Meeting Support	32	$175	**$5600.00**
Planning Travel and Living Tasks: Audit Support	4 days	$320.25	**$1281.00**

Training (CSD and Maintenance)	4 techs	$2800.00	**$7,200.00**

M/A-COM System Engineering Planning Phase Support

City of Dade Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	11	$175	**$1925.00**
Customer Support Total Tasks included in estimate: Meeting Support	4	$175	**$700.00**

M/A-COM System Engineering Planning Phase Support

County Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	11	$175	**$1925.00**
Customer Support Total Tasks included in estimate: Meeting Support	3	$175	**$525.00**

M/A-COM System Engineering Planning Phase Support

State of Florida Mutual Aid Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	20	$175	**$3500.00**
Customer Support Total Tasks included in estimate: Meeting Support	10	$175	**$1750.00**

M/A-COM System Engineering Planning Phase Support

State of Florida Mutual Aid Transportable Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	13	$175	**$2275.00**
Customer Support Total Tasks included in estimate: Meeting Support	3	$175	**$525.00**

M/A-COM System Engineering Planning Phase Support

NPSPAC Mutual Aid Transportable Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	12	$175	**$2100.00**
Customer Support Total Tasks included in estimate: Meeting Support	6	$175	**$1050.00**

Table 24 – Negotiation

M/A-COM System Engineering Negotiations Support

GPS Simulcast			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	8	$175	$1,400.00
Reconfiguration Phase Negotiations	32	$175	$5600.00

M/A-COM System Engineering Negotiations Support

City of Dade Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	1	$175	$175.00
Reconfiguration Phase Negotiations	2	$175	$350.00

M/A-COM System Engineering Negotiations Support

County Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	1	$175	$175.00
Reconfiguration Phase Negotiations	2	$175	$350.00

M/A-COM System Engineering Negotiations Support

State of Florida Mutual Aid Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	2	$175	$350.00
Reconfiguration Phase Negotiations	4	$175	$700.00

M/A-COM System Engineering Negotiations Support

State of Florida Mutual Aid Transportable Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	1	$175	$175.00
Reconfiguration Phase Negotiations	4	$175	$700.00

M/A-COM System Engineering Negotiations Support

NPSPAC Mutual Aid Transportable Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	1	$175	$175.00
Reconfiguration Phase Negotiations	4	$175	$700.00

System verification is accomplished by the methods and practices prescribed by M/A-COM's Acceptance Verification Procedure (AVP) provided with this proposal. M/A-COM is not responsible for any coverage changes and interference resulting from the new reconfigured frequencies.

Contracts and Legal

Legal Fees

M/A-COM has no participation in tasks associated with FRA contract development.

FCC Licensing

M/A-COM has no participation associated with FCC licensing and other regulatory requirements as they pertain to the FRA.

Other Costs

Other Project Management

M/A-COM has no project management or administration tasks beyond those directly associated with subscriber and infrastructure equipment reconfiguration.

Table 25 – Freight

Tasks	Cost
Stage & Ship Infrastructure from Lynchburg, VA to Pasco County	To Be Provided by Sprint
Staging, Delivery to Site, Warehouse (Service Shop)	To Be Provided by Sprint
Ship Radios from Pasco County, FL to Sprint-Nextel (286 mobiles, 6 control stations, & 406 portables)	To be Provided by Sprint

Yearly Maintenance

Yearly maintenance cost is provided in Table 26. Cost covers 24x7, 2 hour response time.

Table 26 - Yearly Maintenance

Tasks	Cost
Backbone system maintenance for 3 site GPS Simulcast and IMC-Pasco County, Florida	$103,448.40 per year

Taxes

Since Pasco County is a governmental entity, none of the work or equipment proposed by M/A-COM is anticipated to be taxable.

Contingency

M/A-COM does not anticipate any contingency tasks associated with this reconfiguration project.

Pricing

All items and options are priced for execution concurrently. Should Pasco County choose not to purchase a given item and/or service upon execution of the initial purchase order or contract, and should the item and/or service be required at a later date, the said item and/or service may include additional costs.

EXHIBIT 4

TUSA PAYMENT FOR REBANDING OF
PASCO COUNTY SHERIFF'S OFICE

Coordination of rebanding equipment during the entire process. 290 days, to include service shop time.	$82,215.00
Planning Costs if required: Frequency Analysis, System Inventory, Implementation Schedule	$18,900.00
Travel Costs, 413 days, various rates, total:	$22,350.00
Total:	$123,465.00

EXHIBIT 5

Scheduling Order
(Attached)

Exhibit 5 - Pasco Scheduling Order
Pasco County, FL Preliminary Project Schedule January 11, 2007

800 MHz Radio Network Rebanding Version 4

ID Task Name Duration Predecessors Start Finish
Pasco County, FL --800 MHz Rebanding Schedule 337 days? Mon 2/5/07 Tue 5/20/08
Notice to proceed 0 days Mon 2/5/07 Mon 2/5/07
M/A-COM designates Implementation Team 0 days 2FS+2 days Tue 2/6/07 Tue 2/6/07
Prepare for Customer Design Review (CDR) 25 days Wed 2/7/07 Tue 3/13/07
Internal Project Review Meetings 5 days 3 Wed 2/7/07 Tue 2/13/07
Additional Site surveys (where needed) 3 days 5 Wed 2/14/07 Fri 2/16/07
Project Planning Session with Customer 2 days 6 Mon 2/19/07 Tue 2/20/07
Run pre-configuration coverage baseline test 3 days 7 Wed 2/21/07 Fri 2/23/07
Prepare for Customer Design Review (CDR) 5 days 8 Mon 2/26/07 Fri 3/2/07
Customer Design Review/ Project Planning meetings with custome 2 days 9 Mon 3/5/07 Tue 3/6/07
Pasco County Design Review Approval 0 days 10FS+5 days Tue 3/13/07 Tue 3/13/07
Manufacturing Process 73 days Fri 3/23/07 Tue 7/3/07
Place orders on factory 3 days 11FS+1 wk Fri 3/23/07 Tue 3/27/07
Place orders on vendors 2 days 13 Wed 3/28/07 Thu 3/29/07
Manufacture 3-site 800 Simulcast System 10 wks 13 Wed 3/28/07 Tue 7/3/07
Order terminal products from Sprint Nextel 2 wks 15FS-2 wks Thu 6/14/07 Tue 7/3/07
Factory Staging 31 days Wed 7/4/07 Wed 8/15/07
Assemble 3-site simulcast system & Control Point 3 wks 15 Wed 7/4/07 Wed 8/1/07
Run factory staging test 3 days 18FS+2 days Mon 8/6/07 Wed 8/8/07
Break down and pack for shipping 3 days 19 Thu 8/9/07 Mon 8/13/07
Deliver equipment to Pasco County, FL area 2 days 20 Tue 8/14/07 Wed 8/15/07
Terminal re-programming & re-placement 58.13 days Thu 8/16/07 Tue 11/6/07
Turn off old channel 6 1 hr 104FS-55 days Wed 9/12/07 Wed 9/12/07
Mobile replacement & re-programming 37 days Wed 9/12/07 Fri 11/2/07
Remove old mobiles & install new mobiles - 2 teams (286) 30 days 23 Wed 9/12/07 Wed 10/24/07
Re-program mobiles that are re-programmable (666) 6 days 25FS+1 day Thu 10/25/07 Fri 11/2/07
Control Station replacement & re-programming 2 days Fri 11/2/07 Tue 11/6/07
Replace control stations that are not re-programmable (6) 1 day 26 Fri 11/2/07 Mon 11/5/07
Re-program control stations that are re-programmable (4) 1 day 28 Mon 11/5/07 Tue 11/6/07
Portable replacement & re-programming 13 days Thu 8/16/07 Mon 9/3/07
Replace portables that are not re-programmable (406) 10 days 21 Thu 8/16/07 Wed 8/29/07
Re-program portables that are re-programmable (898) 2 days 31FS+1 day Fri 8/31/07 Mon 9/3/07
Site Development 151 days Tue 4/10/07 Tue 11/6/07
Darby TX/RX Site 127 days Tue 4/10/07 Wed 10/3/07
Customer obtains site lease & use permits 4 wks 14FS+1 wk Tue 4/10/07 Thu 5/17/07
M/A-COM prepare doc & obtains construction permits 6 wks 35FS+1 wk Tue 5/29/07 Wed 7/25/07
Construct concrete foundation for shelter 5 days 36FS+1 wk Mon 8/6/07 Fri 8/10/07
Construct concrete pads for new generator & LP tank 3 days 37 Mon 8/13/07 Wed 8/15/07
Trench underground electrical svc 3 days 38 Thu 8/16/07 Mon 8/20/07
Trench in conduit for fiber 1 day 39 Tue 8/21/07 Tue 8/21/07
Re-configure microwave circuits to provide T1 circuits 1 day 40 Wed 8/22/07 Wed 8/22/07
Set new 12' X 16' concrete shelter on pad 2 days 37FS+2 wks Fri 8/31/07 Mon 9/3/07
Install cable bridge 3 days 42 Tue 9/4/07 Thu 9/6/07
Construct ground system around shelter 5 days 43 Fri 9/7/07 Thu 9/13/07
M-10 M-9 M-8 M-7 M-6 M-5 M-4 M-3 M-2 M-1 M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12 M13 M14 M15 M16 M17
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Pasco County, FL Preliminary Project Schedule January 11, 2007
800 MHz Radio Network Rebanding Version 4

ID

Task Name

Duration

Predecessors

Start

Finish

M-9

M-8

M-7

M-6

M-5

M-4

M-3

M-2

M-1

M1

M3

M4

M5

M6

M7

M8

M9

M10

M11

M12

M13

M14

M15

M16

M17

45

Install electrical system

5 days

44

Fri 9/14/07

Thu 9/20/07

M-10 M2

46

Install new 35kW generator

2 days

45

Fri 9/21/07

Mon 9/24/07

47

Install 1000 gallon propane tank

2 days

46

Tue 9/25/07

Wed 9/26/07

48

Install 12kVa UPS & by-pass in shelter

2 days

47

Thu 9/27/07

Fri 9/28/07

49

Install 2 new antennas & associated equipment

1 day

48

Mon 10/1/07

Mon 10/1/07

50

Final site clean up

2 days

49

Tue 10/2/07

Wed 10/3/07

51

Dade City Tx/Rx Site & Control Point

97 days

Thu 6/7/07

Fri 10/19/07

52

M/A-COM prepare documents & obtain construction permits

6 wks

36SS+1 wk

Thu 6/7/07

Fri 8/3/07

53

Construct concrete foundation for shelter

5 days

37FS+1 wk

Wed 8/22/07

Tue 8/28/07

54

Construct concrete pads for new generator & LP tank

3 days

53

Wed 8/29/07

Fri 8/31/07

55

Trench underground electrical svc

3 days

54

Mon 9/3/07

Wed 9/5/07

56

Trench in conduit for fiber

1 day

55

Thu 9/6/07

Thu 9/6/07

57

Re-configure microwave circuits to provide T1 circuits

1 day

56

Fri 9/7/07

Fri 9/7/07

58

Set new 14' X 20' concrete shelter on pad

2 days

53FS+2 wks

Tue 9/18/07

Wed 9/19/07

59

Install cable bridge

3 days

58

Thu 9/20/07

Mon 9/24/07

60

Construct ground system around shelter

5 days

59

Tue 9/25/07

Mon 10/1/07

61

Install electrical system

5 days

60

Tue 10/2/07

Mon 10/8/07

62

Install new 40kW generator

2 days

61

Tue 10/9/07

Wed 10/10/07

63

Install 1000 gallon propane tank

2 days

62

Thu 10/11/07

Fri 10/12/07

64

Install 18kVa UPS & by-pass in shelter

2 days

63

Mon 10/15/07

Tue 10/16/07

65

Install 2 new antennas & associated equipment

1 day

64

Wed 10/17/07

Wed 10/17/07

66

Final site clean up

2 days

65

Thu 10/18/07

Fri 10/19/07

67

New Port Richey TX/RX Site

95 days

Wed 6/27/07

Tue 11/6/07

68

M/A-COM prepare documents & obtain construction permits

6 wks

36SS+3 wks

Wed 6/27/07

Thu 8/23/07

69

Construct concrete foundation for shelter

5 days

53FS+1 wk

Fri 9/7/07

Thu 9/13/07

70

Construct concrete pads for new generator & LP tank

3 days

69

Fri 9/14/07

Tue 9/18/07

71

Trench underground electrical svc

3 days

70

Wed 9/19/07

Fri 9/21/07

72

Trench in conduit for fiber

1 day

71

Mon 9/24/07

Mon 9/24/07

73

Re-configure microwave circuits to provide T1 circuits

1 day

72

Tue 9/25/07

Tue 9/25/07

74

Set new 12' X 16' concrete shelter on pad

2 days

69FS+2 wks

Thu 10/4/07

Fri 10/5/07

75

Install cable bridge

3 days

74

Mon 10/8/07

Wed 10/10/07

76

Construct ground system around shelter

5 days

75

Thu 10/11/07

Wed 10/17/07

77

Install electrical system

5 days

76

Thu 10/18/07

Wed 10/24/07

78

Install new 35kW generator

2 days

77

Thu 10/25/07

Fri 10/26/07

79

Install 1000 gallon propane tank

2 days

78

Mon 10/29/07

Tue 10/30/07

80

Install 12kVa UPS & by-pass in shelter

2 days

79

Wed 10/31/07

Thu 11/1/07

81

Install 2 new antennas & associated equipment

1 day

80

Fri 11/2/07

Fri 11/2/07

82

Final site clean up

2 days

81

Mon 11/5/07

Tue 11/6/07

83

Mon 10/8/07

Tue 11/27/07

Installation

37 days

84

Darby TX/RX Site

12 days

Mon 10/8/07

Tue 10/23/07

85

Install new 8-ch simulcast equipment, RF base stations, and

5 days

50FS+2 days

Mon 10/8/07

Fri 10/12/07

new combiners at site

86

Ground all equipment

3 days

85

Mon 10/15/07

Wed 10/17/07

87

Connect to combiner/polyphaser/cable entry port

2 days

86

Thu 10/18/07

Fri 10/19/07

88

Connect to MW T1s via fiber and test each circuit

1 day

87

Mon 10/22/07

Mon 10/22/07

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Pasco County, FL Preliminary Project Schedule January 11, 2007

800 MHz Radio Network Rebanding Version 4

ID Task Name Duration Predecessors Start Finish
89 Clean up site, remove all debris 1 day 88 Tue 10/23/07 Tue 10/23/07
90 Dade City Tx/Rx Site & Control Point 17 days Wed 10/24/07 Thu 11/15/07
91 Install new simulcast Control Point Eqpt 5 days 66FS+2 days Wed 10/24/07 Tue 10/30/07
92 Install new 8-ch simulcast equipment, RF base stations, and new combiners at site 5 days 91 Wed 10/31/07 Tue 11/6/07
93 Ground all equipment 3 days 92 Wed 11/7/07 Fri 11/9/07
94 Connect to combiner/polyphaser/cable entry port 2 days 93 Mon 11/12/07 Tue 11/13/07
95 Connect to MW T1s via fiber and test each circuit 1 day 94 Wed 11/14/07 Wed 11/14/07
96 Clean up site, remove all debris 1 day 95 Thu 11/15/07 Thu 11/15/07
97 New Port Richey TX/RX Site 12 days Fri 11/9/07 Mon 11/26/07
98 Install new 8-ch simulcast equipment, RF base stations, and new combiners at site 5 days 82FS+2 days Fri 11/9/07 Thu 11/15/07
99 Ground all equipment 3 days 98 Fri 11/16/07 Tue 11/20/07
100 Connect to combiner/polyphaser/cable entry port 2 days 99 Wed 11/21/07 Thu 11/22/07
101 Connect to MW T1s via fiber and test each circuit 1 day 100 Fri 11/23/07 Fri 11/23/07
102 Clean up site, remove all debris 1 day 101 Mon 11/26/07 Mon 11/26/07
103 Newport Richie Dispatch Center (CEC/IMC Site) 1 day Tue 11/27/07 Tue 11/27/07

104 Reconfigure CEC to Integrated Multisite Controller (IMC) with new hardware to support new simulcast equipment 1 day 102 Tue 11/27/07 Tue 11/27/07
105 Sprint to Provide Frequencies to Pasco County 1 day? 104 Wed 11/28/07 Wed 11/28/07
106 Optimization 16 days Wed 11/28/07 Wed 12/19/07
107 Set levels at all RF sites 4 days 104 Wed 11/28/07 Mon 12/3/07
108 Set levels & parameters at Control Point 3 days 107 Tue 12/4/07 Thu 12/6/07
109 Set levels & parameters at all switches 2 days 108 Fri 12/7/07 Mon 12/10/07
110 Verify Conventional interfaces 2 days 109 Tue 12/11/07 Wed 12/12/07
111 Verify simulcast alarm systems 2 days 110 Thu 12/13/07 Fri 12/14/07
112 Prepare for FATP Test 3 days 111 Mon 12/17/07 Wed 12/19/07
113 Functional Acceptance Test Plan (FATP) Test 21 days Tue 12/25/07 Tue 1/22/08
114 Run functional test at each site 4 days 112FS+3 days Tue 12/25/07 Fri 12/28/07
115 Run functional test at Dispatch Center 1 day 114 Mon 12/31/07 Mon 12/31/07
116 Run functional test on user eqpt 1 day 115 Tue 1/1/08 Tue 1/1/08
117 Run post-configuration coverage baseline 3 days 116 Wed 1/2/08 Fri 1/4/08
118 CM Coverage Test (CATP) 1 wk 117 Mon 1/7/08 Tue 1/15/08
119 Resolve punch list items 1 wk 118SF+12 days Mon 1/14/08 Tue 1/22/08
120 Acceptance 0 days 118 Tue 1/15/08 Tue 1/15/08
121 Cutover 11 days Wed 1/9/08 Wed 1/23/08
122 Establish plan for departmental cutover to new system 3 days 120FS-1 day Tue 1/15/08 Thu 1/17/08
123 Plan & setup conv to talkgroup interfaces during cutover 4 days 122 Fri 1/18/08 Wed 1/23/08
124 Provide system admin training 3 days 120FS-5 days Wed 1/9/08 Fri 1/11/08
125 Provide radio tech training 2 days 124 Mon 1/14/08 Tue 1/15/08
126 Turn on new channel 6 1 hr 125 Wed 1/16/08 Wed 1/16/08
127 Cutover to new system 0 days 125FS+2 days Thu 1/17/08 Thu 1/17/08
128 Inform Dispatch-to go active on talkgroups 1 day 127FS-1 day Thu 1/17/08 Thu 1/17/08
129 Activate electronic patches to interface to old channels 1 day 127FS-2 days Wed 1/16/08 Wed 1/16/08
130 Notify departments of their cutover time 1 day 127FS-2 days Wed 1/16/08 Wed 1/16/08
131 Submit final documentation 1 day 130 Thu 1/17/08 Thu 1/17/08
M-10 M-9 M-8 M-7 M-6 M-5 M-4 M-3 M-2 M-1 M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12 M13 M14 M15 M16 M17
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Pasco County, FL Preliminary Project Schedule January 11, 2007

800 MHz Radio Network Rebanding Version 4

ID Task Name Duration Predecessors Start Finish
132 Re-tune of Conventional & Mutual Aid channels 5 days? Mon 1/21/08 Fri 1/25/08
133 City of Dade City Conventional Channel 2 days Mon 1/21/08 Tue 1/22/08
134 Preparation, Travel time, and Set-up 2 hrs 131FS+1 day Mon 1/21/08 Mon 1/21/08
135 Verify proper operation of all stations by performing TX/RX and 2 hrs 134 Mon 1/21/08 Mon 1/21/08
136 Measure power out of the station(s) and ouptut of the combine 2 hrs 135 Mon 1/21/08 Mon 1/21/08
137 Re-tune M/A-COM repeaters to the new frequencies 3 hrs 136 Mon 1/21/08 Tue 1/22/08
138 Re-tune combiners to new frequencies 3 hrs 137 Tue 1/22/08 Tue 1/22/08
139 Measure and compare that power output of all stations and out 2 hrs 138 Tue 1/22/08 Tue 1/22/08
140 Verify proper operation of all stations by performing PTT & aud 2 hrs 139 Tue 1/22/08 Tue 1/22/08
141 Pasco County Conventional Channel 2 days Mon 1/21/08 Tue 1/22/08

142 Preparation, Travel time, and Set-up 2 hrs 131FS+1 day Mon 1/21/08 Mon 1/21/08
143 Verify proper operation of all station(s) by performing TX/RX an 2 hrs 142 Mon 1/21/08 Mon 1/21/08
144 Measure power out of the station(s) and ouptut of the combine 2 hrs 143 Mon 1/21/08 Mon 1/21/08
145 Re-tune M/A-COM repeaters to the new frequencies 3 hrs 144 Mon 1/21/08 Tue 1/22/08
146 Re-tune combiners to new frequencies 3 hrs 145 Tue 1/22/08 Tue 1/22/08
147 Measure and compare that power output of all stations and out 2 hrs 146 Tue 1/22/08 Tue 1/22/08
148 Verify proper operation of all stations by performing PTT & aud 2 hrs 147 Tue 1/22/08 Tue 1/22/08
149 Pasco County Transportable System 2 days Wed 1/23/08 Thu 1/24/08
150 Preparation, Travel time, and Set-up 2 hrs 148 Wed 1/23/08 Wed 1/23/08
151 Verify proper operation of all station(s) by performing TX/RX an 2 hrs 150 Wed 1/23/08 Wed 1/23/08
152 Measure power out of the station(s) and ouptut of the combine 2 hrs 151 Wed 1/23/08 Wed 1/23/08
153 Re-tune M/A-COM repeaters to the new frequencies 3 hrs 152 Wed 1/23/08 Thu 1/24/08
154 Re-tune combiners to new frequencies 3 hrs 153 Thu 1/24/08 Thu 1/24/08
155 Measure and compare that power output of all stations and out 2 hrs 154 Thu 1/24/08 Thu 1/24/08
156 Verify proper operation of all stations by performing PTT & aud 2 hrs 155 Thu 1/24/08 Thu 1/24/08
157 State Mutual Aid Channel 2 days Wed 1/23/08 Thu 1/24/08
158 Preparation, Travel time, and Set-up 2 hrs 148 Wed 1/23/08 Wed 1/23/08
159 Verify proper operation of all station(s) by performing TX/RX an 2 hrs 158 Wed 1/23/08 Wed 1/23/08
160 Measure power out of the station(s) and ouptut of the combine 2 hrs 159 Wed 1/23/08 Wed 1/23/08
161 Re-tune M/A-COM repeaters to the new frequencies 3 hrs 160 Wed 1/23/08 Thu 1/24/08
162 Re-tune combiners to new frequencies 3 hrs 161 Thu 1/24/08 Thu 1/24/08
163 Measure and compare that power output of all stations and out 2 hrs 162 Thu 1/24/08 Thu 1/24/08
164 Verify proper operation of all stations by performing PTT & aud 2 hrs 163 Thu 1/24/08 Thu 1/24/08
165 PASCO County Returns Frequencies to Nextel 1 day? 164 Fri 1/25/08 Fri 1/25/08
166 Final Terminal Programming for NPSPAC & Mutual Aid 75 days Fri 1/25/08 Thu 5/8/08
167 Re-program 2266 mobiles & portables 65 days 164 Fri 1/25/08 Thu 4/24/08
168 Re-program 10 control stations 10 days 167 Fri 4/25/08 Thu 5/8/08
169 Removal of old antennas 3 days 131 Fri 5/9/08 Tue 5/13/08
170 Remove 2 old antennas & assoc equipment at Darby Tx/Rx site 1 day 168 Fri 5/9/08 Fri 5/9/08
171 Remove 2 old antennas & assoc equipment at Dade City Tx/Rx site 1 day 170 Mon 5/12/08 Mon 5/12/08
172 Remove 2 old antennas & assoc equipment at New Port Richey Tx 1 day 171 Tue 5/13/08 Tue 5/13/08
173 Final Procedures 5 days Wed 5/14/08 Tue 5/20/08
174 Wrap-up procedures 5 days 172 Wed 5/14/08 Tue 5/20/08
175 System Rebanding Completed 0 days 174 Tue 5/20/08 Tue 5/20/08
M-10 M-9 M-8 M-7 M-6 M-5 M-4 M-3 M-2 M-1 M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12 M13 M14 M15 M16 M17
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EXHIBIT 6

Infrastructure Spare Parts
(Attached)

4 EA101794V1	RX IF Module 70.2 MHz	26 DB-8881	Decibel Products Station RF Power Sensor
4 EA101292V1	TX PA Assembly 800 MHZ 100W		
4 19C320895G12	Fan 230VAC, 2 Speed		
4 19C336861P2	Power Sensor		
4 PS103010V120	Power Supply, 120 VAC, 12/24 V DC		

	Voter Spares		
2 ROA1172240/5	Voter Selector (CPU)	16 VP-SHELF	Analog Voter Shelf and Backplane Assy.
3 ROA1172240/4	Receiver,Digital Voting	16 19D413917-G3	Analog Voter 120 VAC Power Supply
2 188D6495G1	Relay Assembly	16 19D902104-GI	Digital RX Interface GETC
1 SXA1204334/1	Power Distribution Panel	26 19D902104-GI	Digital Voter GETC
3 ROA1172247/2	RS232 Interface Module	6 19A149978-P1	Digital Voter Cabinet Power Supply
2 PS101164V2	Power Supply, 5/12VDC	26 19A705178-P1	Rockwell Fast-Train Modem
1 19C320895G14	Fan, 120V, 2 Speed	16 19D41395-G3/5	Analog Voter Audio Modules
2 19C852204G1	Interconnect Module	24 19D413994-G1	Analog Voter Receiver Modules
3 ROA1172227	EDACS Module, 2 Chan	6 19D417358-G3	69" Equipment Cabinet with Doors

Total List $69,038.78

Pasco Infrastructure Spares List - Scubbed and Correlated - 11/12/07

Replacement Spares			*Existing Spare Equipment*		
Qty	*Model No*	*Description*	*Qty*	*Model No*	*Description*
		M7100 Test Radio Spares			
1	CB-009115	Audio Logic IF Board Asm, 800 MHz	1	19C851571-P1	Ranger Test Unit
1	B19/TM-0300LL-ASM	TRX Synth Board, 800 MHz	1	S550	Control Head
1	B19/6516742	Top Cover Assembly			
1	B19/6516758	Bottom Cover Assembly			
1	CN101612V1	Front Flex Cable, CU to Radio			
1	B19/KPX2465	Screw Kit			
1	B19/KXP2466	Front Panel Kit			
1	B19/KXP2470	Fuse Kit			
1	MAHG-CP7V	Control Unit, System, Front Mount			
		Control Point Spares			
2	KEP81375/1	Sim Shelf W/ Control Module	2	MICROVAX	DEC Site Controller Computer Frame
2	19C852447G1	Edacs Serial Interface Module	2	M7478	DEC Processor Card
1	19C852204G1	Interconnect Module	2	M7608	DEC Memory Card
1	PS24043-0001	Power Supply 120V, 12VDC	4	CS0210203-H1	Emulex Multiport Serial Interface Card
1	19D901868G6	GETC Downlink Kit	2	19D902104-GI	Downlink GETC
		GPS and Test Unit Spares			
1	EA101457V1	Interface Site Card	1	19D901365-G2	EDACS Test and Alarm Unit
1	EA101419V4	Controller Module	1	19C336861-P3	EDACS RF Power Monitoring Subsystem
1	MASC-NMD6Q	Assembly,Network Sentry IEA GPS SIM	1	19D417358-G3	69" Equipment Cabinet with Doors
		Mastr III E-Net Spares			
4	19D902975G1	Mastr III Interface Board	26	B3N100TADZC	EDACS 800 MHz Mastr II Base station
4	19D902589G2	Mastr III Power Module	24	19D430272-G7	Mastr II Power Supply
4	19D902590G6	System Module	13	19D417358-G3	69" Equipment Cabinet with Doors
4	EA101685V5	TX Synth Module, 800 MHz	25	19D904226-G1	Station GETC with speedy micro and daughterboard
4	EA101684V5	RX Synth Module, 800MHz	16	19A705178-P1	Rockwell Fast-Train Modem
4	19D902782G5	RX Front End Board	13	S4FN1A	Top mounted 2 speed Cabinet Fan Assy

ATTACHMENT B –

M/A-COM FREQUENCY RECONFIGURATION AGREEMENT (FRA)
STATEMENT OF WORK REVISED SEPTEMBER 25, 2007

FREQUENCY RECONFIGURATION AGREEMENT (FRA)

STATEMENT OF WORK

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Introduction

In order to streamline the negotiations process for Pasco County, M/A-COM has constructed this proposal in conformance with the guidelines for completing a Frequency Reconfiguration Agreement (FRA) Schedule C Cost Estimate. The structure of this proposal directly corresponds to the guidelines suggested by the Transition Administrator (TA). All tasks and procedures are identified in the categorized sections below. Costs within this Statement of Work have been summarized in the pricing summary pages found under the Pricing tab.

The system upgrades required for the Pasco County network components subject to reconfiguration have been generally determined by M/A-COM and Pasco County. Whereas the basic overall design of the system does not change, the components within these systems need to be replaced or modified to comply with the FCC reconfiguration program.

This proposal has been strategically constructed so as to introduce the most economical plan with the least amount of capacity and coverage degradation to the County during the reconfiguration process. The following approach provides a cost effective path with minimal disruption to service and capacity to the County's EDACS system having a total of eight licensed channels (one of which is an Expansion Band channel) at each of three simulcast sites. Additionally, the reconfiguration prescribed herein covers two conventional channels and four Mutual Aid channels.

Reconfiguration Overview

System Description

The County's 800 MHz radio communications systems consist of:

- The County's 3-site, 8-channel M/A-COM EDACS Simulcast system
- Dade City's 800 MHz conventional channel at Edwinola site
- The County's 800 MHz conventional channel at Dade City site
- The County's conventional Florida Mutual Aid channel at Darby site
- The County's Florida Mutual Aid transportable emergency communications facility
- The County's 3-channel NPSPAC Mutual Aid emergency communications system in same transportable facility stated above

EDACS Simulcast System

The primary 800 MHz trunked system is shared by virtually all county agencies as well as all municipal public safety departments. One of the EDACS simulcast system's eight frequencies, Channel 6, must be retuned from 815/860.8375 MHz to 813/858.3875 MHz. This system is one of the very first 800 MHz EDACS simulcast systems installed by the General Electric Co. (now M/A-COM). It is based on MASTR II base stations, ElectroCom simulcast control and equalization equipment, and NEC multiplex channel banks. All of this equipment has been out of production for some time and spare parts and manufacturer support for this equipment is extremely limited. As such, any modification to this system poses significant issues and risks, which were considered in this rebanding effort.

Subscriber Units

The County has a fleet of approximately 2,266 user radios (1,422 portables, 834 mobiles and 10 control stations). This equipment spans the full range of user equipment manufactured for use on an EDACS network, from GE MPD's and FMD's to current production M/ACOM P7100 and M7100 series units. All of these units will be required to be retuned to the reconfigured trunked system and mutual aid frequencies. Any equipment that is incapable of being retuned to these new frequencies will require replacement with comparable units that can be appropriately tuned.

Conventional Equipment

Dade City's conventional channel supports local operations within the City as well as providing backup for the City in the event of a failure of the primary simulcast system. It is a single channel MASTR II wire-line controlled conventional repeater installed on the roof of a building in Dade City. This station currently operates on 808/853.0375 MHz and must be retuned to 809/854.4875 MHz.

Pasco County operates a single 800 MHz conventional station at the Dade City TX/RX site. This is a Johnson conventional repeater station that currently operates at 806/851.8125 MHz and must be reconfigured to 813/858.8125 MHz.

Mutual Aid Conventional Equipment

The County operates a single permanently installed Florida Mutual Aid channel that is centrally located in the county at the Darby site. This is a MASTR-II station and must be retuned from 808/853.3875 MHZ to 809/854.6375 MHz

The County also operates a 4-channel portable emergency radio system that must be reconfigured. The portable emergency system is trailer mounted and includes four (4) M/A-COM MASTR-III conventional repeater stations, an emergency power generator, and a crank-up 100' tower. One of these stations is currently tuned to the Florida State-wide 800 MHz Mutual Aid channel (808/853.3875 MHz) and must be retuned to 809/854.6375MHz. The other three stations are tuned to NPSPAC Mutual Aid channels I-TAC2, I-TAC3, and I-TAC4 (822/867.0125 MHz, 822/867.5125 MHz, and 823/868.0125 MHz, respectively). Each of these NPSPAC stations must be retuned 15 MHz lower to 807/852.0125 MHz, 807/852.5125 MHz and 808/853.0125 MHz, respectively. The timing of the retuning of the three (3) NPSPAC channels must coincide with Wave 3, Phase 2 of the national reconfiguration plan

Shelters and Civils

In order to provide physical space for the replacement trunked simulcast equipment, M/A-COM will provide additional shelters at all three simulcast RF sites. This will include concrete shelters, foundation, electrical system, UPS, interior single point ground system, generator with ATS and fuel tank. M/A-COM will also provide an additional cable bridge from the tower to the additional shelter to be mounted at the cable entry port. M/A-COM will construct an exterior ground system around the shelter that will tie into the tower ground along with the existing shelter and other items in the compound.

Inter-site Backhaul

It is M/A-COM's plan to use the County's existing MW. We do not recommend moving it so it will remain in the existing shelter. M/A-COM will install a conduit run between the existing shelter and the additional shelter. A fiber optic cable will be pulled through the conduit. M/A-COM will supply the light modulator equipment on both ends to bring a T1 from the MW equipment to the replacement simulcast mux equipment. This will be done at all three sites.

Tower Considerations

To facilitate the installation and configuration of the replacement simulcast RF equipment, M/A-COM will hang replacement TX and RX antenna systems including a TTA. Both antennas will be mounted on 6' side arms. The TX antenna will use 1-1/4" cable and the RX antenna will use 7/8" cable. After the simulcast trunked system is cut over, M/A-COM will have a tower crew remove the old antennas and feed line to reduce tower loading. This will also be done at all three sites.

Reconfiguration Milestones

The following is a list of anticipated start and completion dates for major reconfiguration milestones.

Table 1 – Reconfiguration Milestone Summary

Reconfiguration Task	Start Date	Completion Date	Duration (days)
Reconfiguration Planning	TBD	TBD	25
Reconfigure Subscriber Equipment	TBD	TBD	133
Reconfigure Infrastructure Equipment	TBD	TBD	326
System Verification	TBD	TBD	5

A detailed reconfiguration schedule is provided under the Project Schedule tab.

Reconfiguration Summary

Table 2 below summarizes the key system equipment of the Pasco County 800 MHz radio system. All programming, reprogramming, and re-tuning tasks will be performed by M/A-COM.

Table 2 -- Equipment Reconfiguration Summary

Equipment	Existing Qty	Reprogram & Retune	Replace	Add	Retune/ Replace/ Add By
EDACS Site Equipment					
No. of Repeater Sites	3	-	-	-	
Total No. of Trunked Channels	8	1	-	-	M/A-COM
Total No. of Repeater Stations	24	-	24	-	M/A-COM
Total No. of TX Combiners	3	-	3	-	M/A-COM
Total No. of TX Antennas	3	-	3	-	M/A-COM
Total No. of Multicouplers	3	-	3	-	M/A-COM
Total No. of TTA	3	-	3	-	M/A-COM
Total No. of RX Antennas	3	-	3	-	M/A-COM
Conventional Equipment					
Total No. of Conv/Mutual Aid Repeaters	7	6	1	1	M/A-COM
Total No. of Conventional Aux Receivers	0	-	-	-	
Total No. of Conventional Combiners	1	1	-	-	M/A-COM
Total No. of Conventional Antennas	4	-	-	-	
Total No. of Duplexers	2	-	1	-	M/A-COM
CEC Switch Equipment					
Total No. of Audio Interface Cards	2	-	-	-	M/A-COM
Total No. of TEC Boards	0	-	-	1	M/A-COM
Total No. of MIM Modules	1			1	M/A-COM
Total No. of Redundant MIM Modules	1			1	M/A-COM
Total No. of Causeways Licenses	0	-	-	-	
Subscriber Equipment (per consultant)					
Number of Portable Units	1304		406	-	Sprint-Nextel
Number of Portable Units	1304	898			M/A-COM
Number of Mobile Units	952		286	-	Sprint-Nextel
Number of Mobile Units	952	666			M/A-COM
Number of Control Station Units	10	4	6	-	M/A-COM
Number Unidentified Registered Units	0	-	-	-	

Reconfiguration Plan

As the radio system manufacturer, M/A-COM has been requested to provide a turnkey set of services. This set of services includes the following:

- Reprogram existing re-tunable subscriber equipment.
- Program replacement radios on County/City systems.
- Replace EDACS simulcast control point and voter equipment.
- Replace each of the three EDACS simulcast RF sites including simulcast common equipment, repeater stations, transmit and receive antennas, transmitter combiner, tower-top amplifier, and receiver multicoupler. Additional equipment shelters and emergency generators are also required to support the reconfigurations.
- Replace County's EF Johnson conventional repeater station and duplexer.
- Replace City of Dade City GE MASTR II conventional repeater station and and power supply and retune duplexer.
- Replace County Florida Mutual Aid GE MASTR II repeater station.
- Reprogram/retune M/A-COM MASTR III Florida Mutual Aid and NPSPAC Mutual Aid repeater stations, which are part of Transportable Emergency Communications System.
- Following the reconfiguration and acceptance verification of all replaced systems, M/A-COM will remove replaced equipment from the sites and ship to Sprint-Nextel.

The designed reconfiguration plan consists of a semi-phased approach involving prerequisite work prior to actual system reconfiguration work.

The scheduled prerequisite work will allow certain components of the existing public safety system to be gradually expanded, retuned or replaced with the least amount of disruption to service in order to prepare for the major reconfiguration. This includes installation of shelters, antenna systems, station equipment, programming subscriber personalities, and mobile and portable radio replacements.

EDACS Equipment Reconfiguration

Pasco County operates approximately 2,266 user radios within various agencies located throughout the County. The designated replacement radios embody an estimated 816 vintage radios including FMD, MDX, MPA, MPD, MTD, and RANGR that must be replaced during the reconfiguration.

The reconfiguration plan is based on Pasco County providing facilities to conduct radio replacement and reprogramming. The County will prepare a drop-off schedule for reprogramming and replacement of mobile and portable radios. During the reprogramming, M/A-COM will reprogram radios with the new rebanded frequency set and replace non-reconfigurable radios. M/A-COM will submit all radio data files recorded during the reprogramming to the County.

In accordance with prior agreement between M/A-COM and Sprint Nextel, M/A-COM will replace the County's existing simulcast system, which consists of GE MASTR II repeater stations and Electrocom Automation simulcast control equipment. It is M/A-COM's position that the vintage of the equipment and lack of technical support pose significant risks to the continued operation of the system should any attempt be made to retune the system. Therefore, in order to meet 800 MHz reconfiguration requirements, M/A-COM proposes to replace the simulcast infrastructure with current

production simulcast control and station equipment. Additionally, due to the lack of space at existing simulcast sites, additional equipment including equipment shelters and emergency generators are required to support system reconfiguration. The replaced equipment will be shipped to Sprint-Nextel at the end of the County's reconfiguration project.

M/A-COM's approach allows Pasco County to maintain close to their current traffic channel capacity and Grade of Service (GoS) during transition. M/A-COM proposes to remove trunked Channel 6 from service during system reprogramming/retuning and replacement of subscriber equipment and cutover to the replacement RF infrastructure. This reconfiguration plan results in only one "touch" to subscriber equipment during EDACS trunked system reconfiguration. A second touch is planned during NPSPAC Mutual Aid reconfiguration.

Table 3 -- 800 MHz Trunked System Frequencies

Existing		Proposed	
TX	RX	TX	RX
855.8175	810.8175	855.8175	810.8175
856.8375	811.8375	856.8375	811.8375
857.8375	812.8375	857.8375	812.8375
858.8375	813.8375	858.8375	813.8375
859.8375	814.8375	859.8375	814.8375
860.8375*	815.8375*	858.3875	813.3875
855.2250	810.2250	855.2250	810.2250
856.2250	810.2250	856.2250	811.2250

*Expansion Band Channel

Mutual Aid Equipment Reconfiguration

As stated above, Pasco County operates two Mutual Aid systems. The County operates a single permanently installed Florida Mutual Aid channel (MA-FLA - Channel 96) that is centrally located in the county at the Darby tower. The band reconfiguration to be applied to MA-FLA is of significant concern to Pasco County because not all agencies operating at 800 MHz will reband together. Therefore, to avoid stranding any user operating on this channel that may be party to a mutual aid response, it is necessary to provide for simultaneous operation on both old and new MA-FLA channel assignments during band reconfiguration. Since a mutual aid response to a man-made or natural disaster or other public safety threat may be provided by agencies outside of Pasco County, it is anticipated that Pasco County will continue to simultaneously operate old and new MA-FLA channel assignments until the statewide completion of MA-FLA reconfiguration.

For MA-FLA, M/A-COM proposes a temporary back-to-back repeater solution to maintain interoperability during the State of Florida reconfiguration period. This solution will be transparent to users and dispatchers alike. There will be no change in access, operation, or control of the affected channels. During reconfiguration, it will be possible for users to access the channel either on its original frequency assignment or its rebanded frequency assignment. Access and operation are preserved whereby dispatchers transmit simultaneously to users on original and rebanded assignments. Users may transmit on either assignment and be heard by the dispatcher and all users

regardless of frequency assignment received. Moreover, functionality will be retained over MA-FLA operations by providing dispatch control of repeater enable/disable exactly as it is today and prescribed by the State of Florida Law Enforcement Communications Plan.

The reconfiguration plan for the MA-FLA station is to replace the County's MASTR II repeater station with MASTR III repeater station and power supply provided by Sprint Nextel. The existing MASTR II repeater station will be retained during the reconfiguration period as swing equipment operating on the old MA-FLA channel assignment. The replacement MASTR III station equipment will be tuned to the new MA-FLA channel assignment. A Vega Rebanding Panel will also be provided by Sprint Nextel as swing equipment to enable simultaneous operation on old and new frequency assignments.

Upon conclusion and acceptance of the reconfiguration project, the swing equipment for MA-FLA can be easily removed with little disruption to service and shipped to Sprint Nextel.

Pasco County also operates a transportable Mutual Aid system that is normally stored at New Port Richey. It consists of a trailer equipped with four M/A-COM MASTR-III conventional repeaters, a 100 foot crank-up tower, and generator.

M/A-COM will reprogram and retune the transportable MASTR-III base stations and associated combiner to operate on the rebanded frequency assignments for MA-FLA and NPSPAC Mutual Aid Channels I-TAC-2, I-TAC-3, and I-TAC-4. MA-FLA and NPSPAC Mutual Aid will be reconfigured at separate times in accordance with statewide and regional reconfigurations, respectively.

MA-FLA frequency reprogramming of subscriber equipment will occur simultaneously with EDACS trunked system reprogramming (Touch 1). NPSPAC Mutual Aid frequency reconfiguration will occur at the time of regional reprogramming, which is estimated to coincide with EDACS trunked system cutover.

Table 4 -- Conventional Mutual Aid System Frequencies

Assigned Channel Designation		Existing		Proposed	
Transportable Site	Fixed Site	TX	RX	TX	RX
State of Florida Mutual Aid	State of Florida Mutual Aid	853.3875	808.3875	854.6375	809.6375
I-TAC2		867.0125	822.0125	852.0125	807.0125
I-TAC3		867.5125	822.5125	852.5125	807.5125
I-TAC4		868.0125	823.0125	853.0125	808.0125

Conventional Equipment Reconfiguration

In addition to the conventional Mutual Aid systems, two other conventional systems operating on lower 120 frequencies at Dade City are proposed to be rebanded.

M/A-COM will replace the EF Johnson base station and duplexer located at the Dade City site with a MASTR III station, power supply, duplexer, and equipment cabinet configured for operation on the rebanded frequency assignment.

M/A-COM will replace the existing MASTR-II base station located at the Edwinola site in Dade City with MASTR III equipment tuned to the rebanded frequency assignment. Sprint Nextel will provide the replacement MASTR III base station and power supply.

Table 5 – Other Conventional System Frequencies

Repeater Designation	Existing		Proposed	
	TX	RX	TX	RX
EF Johnson Dade City Site	851.8125	806.8125	858.8125	813.8125
M/A-COM MASTR II Edwinola Site	853.0375	808.0375	854.4875	809.4875

Functional Acceptance Verification

Once the system has been reconfigured, functional acceptance verification will be performed per the enclosed Acceptance Test Procedures (ATP) document as suggested in section 4.6 customer's *Rebanding Issues Document.* The ATP is submitted with this work plan to show general procedures and equipment needed to conduct verification of features and functions. Final ATP procedures will be approved by M/A-COM and the County.

RF Coverage-Coverage Tests & Measurements

M/A-COM recognizes that public safety users have stringent expectations for system reliability, radio coverage and audio quality Therefore, in addition to functional acceptance verification procedures, procedures are also provided for:

1. Coverage testing for the Simulcast System that will also be performed in accordance with Method 3 guidelines from the Transition Administrator.
2. Repeater site measurements will also be performed for the conventional and Mutual Aid systems in accordance with Methods 1 guidelines from the Transition Administrator.

Details of these procedures are discussed in the coverage Acceptance Test Procedures (ATP) accompanying this proposal.

No coverage guarantees are offered with this recommendation. If performance is less than acceptable to the County, M/A-COM will provide recommendations for corrections. The cost of any corrective action resulting from the reconfiguration must be negotiated by the County with Sprint-Nextel. If the

radio users experience reduction or degradation of radio coverage after system reconfiguration, M/A-COM will prepare, at County/Nextel expense, a proposal to return the coverage to the pre-reconfiguration levels as shown by the pre-rebanding coverage measurements, to the extent practical.

Simulcast-Coverage Testing
Pre-reconfiguration baseline and post-reconfiguration performance testing for both signal level and Voice Audio Quality (VAQ) will be performed. If possible, signal level testing, the test routes and locations, as identical as possible to those in the County's original-system coverage acceptance test, will be replicated. Test results will be documented and provided to Pasco.

Coverage testing will include the following:

- Signal Level Testing - On-street coverage shall be measured using automated signal level test equipment. The County shall furnish a test vehicle and route drivers for the purpose of coverage verification. The vehicle will be equipped by M/A-COM with a multi-channel signal logging device, GPS receiver and file management computer. The actual test route driven throughout the service area shall encompass the entirety of Pasco County and will be, to the nearest extent possible, equivalent in scope to the coverage tests performed when the system was originally commissioned.
- Audio Quality Testing - In order to verify that simulcast performance has not been degraded in the overlap regions only, two voice audio quality tests will be performed, one prior to the reconfiguration and a second after. The intent is to perform these tests in the most efficient and cost effective manner possible while still meeting the goal of verifying equivalent simulcast performance.

Conventional and Mutual Aid Systems - RF Coverage-Site Transmit Power Measurements
Prior to reconfiguring the site, measured losses for each component are recorded including the transmit power entering the transmission line. The measurements should include the return loss of the transmission line and antenna. After reconfiguration, the same measurements are made and compared to the prior measurements. If the two sets of measurements are comparable, then coverage will be comparable. M/A-COM will provide results of both sets of measurements for the customer's evaluation.

At this stage, functional acceptance verification procedures will be conducted for customer comparative assessment. Measurement results will be provided to the County for information only. No coverage guarantees are offered with this recommendation. If performance is less than acceptable to the County, M/A-COM will provide recommendations for corrections. The cost of any corrective action resulting from the reconfiguration must be negotiated by the County with Sprint-Nextel. If the radio users experience reduction or degradation of radio coverage after system reconfiguration, M/A-COM will prepare, at County/Nextel expense, a proposal to return the coverage to the pre-reconfiguration levels as shown by the pre-rebanding coverage measurements, to the extent practical.

Reconfiguration Schedule Summary

M/A-COM has included a detailed reconfiguration schedule highlighting projected start and completion times for various tasks. Please refer to the Project Schedule, located under the Project Schedule tab of this proposal.

Planning Phase Costs

M/A-COM is not a party to any Planning Funding Agreement between Pasco County and Sprint-Nextel.

Project Management

Project Implementation Team

Through the experience of implementing numerous communication systems throughout the world, M/A-COM understands the importance of establishing a cohesive project team. Our core project team will consist of a Project Manager (PM), Quality Assurance Manager (QAM), System Engineer (SE), and our Southeast Service Center Manager. M/A-COM's management team, engineering resources, and organizational support will diligently strive to ensure a smooth reconfiguration of Pasco County's trunked simulcast, conventional, and mutual aid systems.

Project Manager (PM)

M/A-COM will assign a project manager to control the County's communication project from the beginning of the project through acceptance. The support from procurement, manufacturing, and order logistics operations will enable the project manager to ensure that the materials, equipment, and services are ordered, shipped, and provided in a timely manner.

The PM will be responsible for developing schedules, monitoring progress, providing necessary progress reports, and taking the actions needed to ensure that schedule compliance is achieved. The PM will also be responsible for overall project cost and processing any necessary contract changes.

Quality Assurance Manager (QAM)

The Quality Assurance Manager will be responsible for planning and coordinating the installation, and acceptance verification of the County's rebanding project. The QAM will report directly to the project manager and will be the local day-to-day on-site contact to the County's designated representative. The QAM will provide on-site supervision of installation teams and coordinate work among installers, subcontractors, and the County's organizations associated with the project. The QAM will initiate appropriate action, including active participation, as required, to ensure the system is installed according to the schedule and specifications.

System Engineer (SE)

M/A-COM will assign a system engineer who will have full technical responsibility for the radio system reconfiguration and optimization. The SE will participate in all review meetings and provide technical support to the project manager.

M/A-COM's Southeast Regional Service Center

M/A-COM proposes to reband the County's radio system utilizing the services of M/A-COM's Gulf Coast Regional Service Center. Mr. Carl Noack will provide a team of technicians to ensure the successful reconfiguration and assessment of the project. Where appropriate, M/A-COM Authorized Service Center subcontractors will be utilized to ensure the highest quality of workmanship and timely execution of the County's radio system. The Service Center pertinent information is listed below:

Mr. Carl Noack
South East Regional Service Manager
119 Mulberry Lane
Pass Christian, Ms. 39571 813-765-3664

The Field Service Manger will work with the QAM to have installers and technicians on site when needed. The Field Service Manager will also provide technicians to participate in the running of any functional acceptance verification and coverage measurements per the Acceptance Test Procedures (ATP).

Notice to Proceed

The project begins with M/A-COM receiving a written notice to proceed from the County. Under the direction of the project manager, the M/A-COM team will meet with Pasco County's team to develop detailed target plans to meet contractual obligations, implementation schedule, payment dates, and other key milestones.

M/A-COM's System Engineering implementation team will review the system plans and assess the impact of the rebanding. The System Engineering team will incorporate these reviews into their Customer Design Review presentation to assist the County in understanding the process and results of the proposed reconfiguration.

Customer Design Review

The Customer Design Review (CDR) meeting will be held to review the important elements of the rebanding plan and to explain key milestones of the project schedule. The CDR process will finalize the infrastructure equipment lists as well as review the re-channelization approach for Pasco County's radio systems. All changes agreed upon during the CDR process will be documented through the Change Order process. Following the County's approval, M/A-COM will deliver a final system design document.

M/A-COM Proposal Assumptions

M/A-COM's proposal is based on the information obtained from the specification, the information on hand from the various system installations and from prior experience of dealing with Sprint-Nextel on other rebanding opportunities.

- M/A-COM will work with the County's representatives to develop a plan to program/reprogram subscriber radio units with the replacement frequencies.
- M/A-COM and its authorized service providers will replace the County's EDACS trunked simulcast system for operation on rebanded channel assignments in conformance with all FCC levels or specifications.
- M/A-COM and its authorized service providers will reprogram and retune MASTR-III conventional mutual aid base stations to the rebanded channel assignments in conformance with all FCC levels or specifications. For reconfiguration of conventional the Mutual Aid MASTR-II base station, Sprint Nextel will provide replacement MASTR III base station and power supply to operate on the rebanded channel assignment, which will be installed by M/A-COM.

- M/A-COM will reprogram the existing subscriber radios in the Pasco County radio fleet that are capable of being programmed on the rebanded channel assignments. Since M/A-COM keeps no record of upgrades the customer may have installed in the field, the list may need to be confirmed.
- Those subscriber radios not capable of being reprogrammed will be replaced with radios of similar functionality programmed with the rebanded channel assignments. Sprint Nextel will provide the replacement radios to the County.
- If Sprint Nextel does not have replacement radios available, the County will work with Sprint Nextel to reach agreement on the quantities of radios needed, and have Sprint Nextel place orders with M/A-COM for the replacement radios.
- M/A-COM will work with the County to develop a project timeline that will efficiently allow for the rebanding process with minimal impact on current operations.
- It is M/A-COM's understanding that Sprint Nextel will prepare the FCC documents for the County in regard to the rebanded channel assignments. However, M/A-COM has included services to provide permits and licenses for the rebanding process.
- M/A-COM will perform functional verification as described in the Acceptance Test Procedure (ATP).
- M/A-COM will perform pre and post Method 3 coverage testing as defined by the 800 MHz Transition Administrator, to demonstrate comparable performance of the trunked simulcast infrastructure. For conventional infrastructure, M/A-COM will perform Method 1 coverage testing to assure performance comparable to the equipment's pre-rebanded state. M/A-COM offers no coverage guarantees in either case.
- The performance of the functional verifications and the before and after coverage testing are the only assessments that M/A-COM will provide.
- M/A-COM will work with the County to develop plans that will minimize disruptions to current operations. Not receiving radios on a timely basis or work performed on an off-day shift may cause additional costs to be incurred.
- As part of this proposed frequency reconfiguration effort, M/A-COM has quoted maintenance services for replaced infrastructure commensurate with the warranty period. Additionally, M/A-COM will not be responsible for any latent deficiencies resulting with existing equipment which is retuned. M/A-COM will perform the acceptance verification as defined in the functional ATP. If remedial action is required, M/A-COM will help identify the source of the problem. If a replacement part is not functioning properly, M/A-COM and the County will notify Sprint Nextel of the need for a new replacement part or product. M/A-COM and County will develop a verification procedure that is acceptable to Sprint Nextel and the TA for authorized payment.
- Sprint Nextel will provide replacement radios where required.
- Pasco County will be responsible for any backhaul connectivity circuits (microwave, T1, leased lines, fiber, etc.) between the RF sites, simulcast control point, and the dispatch/switch site.
- In order to affect its rebanding plan, M/A-COM has included structural analysis in its cost estimate for determining the feasibility of adding new antenna systems to existing towers. M/A-COM has also provided for acquiring associated permits and licenses if the need arises.

- M/A-COM will provide additional shelters at all three RF sites. This will include concrete shelters, foundation, electrical system, UPS, interior single point ground system, generator with ATS and fuel tank. M/A-COM will also provide a cable bridge from the tower to the additional shelter to be mounted at the cable entry port. M/A-COM will construct an exterior ground system around the shelter that will tie into the tower ground along with the existing shelter and other items in the compound.

Subscriber Equipment Reconfiguration

Programming all 2,266 radios with the new rebanded frequency set must first be accomplished prior to cutover to reconfigured infrastructure sites. The following advisory recommendations are provided to ensure successful radio replacement and reprogramming. Please view them as prerequisites that are essential for the successful, timely, and cost-effective implementation of Pasco County's rebanding project.

It is assumed that Pasco County:

- Will be responsible for providing environmentally protected locations (e.g. garage bays) to M/A-COM for the purpose of removing and installing mobile radios. Two locations are required for East County and West County, respectively.
- Will be responsible for scheduling subscriber users to deliver radios to equipment replacement/reprogramming locations.
- Will be responsible for rescheduling subscriber no-shows; accommodating no-shows is subject to additional costs to reschedule and perform work.
- Will provide all desktop control station locations with address, detailed configurations, and access for each.

It is assumed that M/A-COM:

- Will be responsible for removal, installation and programming of radios as applicable.
- Will be responsible for storage of the 816 replacement radios provided by Sprint-Nextel and storage of the removed equipment pending return to Sprint-Nextel.
- Will be responsible for providing environmentally controlled locations to reprogram mobile and portable radios.
- Will be responsible for saving all radio profile data and submitting templates to Pasco County at the end of reconfiguration.
- Will be responsible for returning removed equipment and unused replacement radios to Sprint-Nextel.

Project Management

The table below describes the specific tasks and costs associated with managing and administering the reconfiguration of subscriber equipment.

Table 6 -- Subscriber Equipment Project Management Reconfiguration Costs

Task	Effective Man-Days	Man-Day Rate	Cost
Project Management	100	$1,400	*
Project Management (Service Shop)	45	$1,775	$79,875

*M/A-COM Project Management costs are now handled on a corporate level with Sprint, therefore all costs associated with the assigned Project Manager have been removed from this proposal.

Travel Costs

Travel costs for subscriber equipment reconfiguration are itemized in the table below included in the total cost.

Table 7 -- Subscriber Equipment Reconfiguration Travel Costs

Description	Number of Units	Unit	Rate	Number of Units
Project Management T&L	8	Trips	$1005	*
Project Management T&L (Service Shop)	15	Days	$1,427.10	$21,407.00
Quality Assurance Manager T&L	4.7	Months	$3685	$17,319.50
Technician T&L Touch 1 (6 techs)	50.5	Days	$262.70	$79,598.10
Technician Vehicles Touch 1 (6 vehicles)	50.5	Days	$106.50	$32,269.50
Technician T&L Touch 2 (6 techs)	28	Days	$262.70	$44,133.60
Technician Vehicles Touch 2 (6 vehicles)	28	Days	$106.50	$29,820.00

*M/A-COM Project Management costs are now handled on a corporate level with Sprint, therefore all costs associated with the assigned Project Manager have been removed from this proposal.

Subscriber Reconfiguration Method

This section identifies the tasks and costs required to prepare and reconfigure the subscriber equipment.

1. County will provide all subscriber user profile configurations.
2. M/A-COM will replace all non-configurable mobile and portable radios with Sprint-Nextel provided comparable radio replacements. The County will organize and schedule vehicles for replacement radios and deliver vehicles to County designated facilities for installation. The County is responsible for rescheduling "No Shows" in a timely manner that will not delay ongoing retuning and replacement activities.

3. M/A-COM will program new rebanded frequency sets into mobile and portable radios. County will be responsible for scheduling and gathering radios at centralized locations – East and West County.
4. M/A-COM will replace all non-configurable control stations, and reprogram/retune all control stations that are reconfigurable at sites of installation.
5. M/A-COM will reprogram subscriber equipment in two "touches." The first touch will begin at such time that reprogramming of the fleet will be accomplished just prior to cutover to reconfigured non-NPSPAC infrastructure. This touch will reprogram the frequency sets associated with Lower 120 and Expansion Band channels. Special consideration will be given to the reprogramming of users who operate on the County and Dade City conventional channels to ensure these users suffer only minimal downtime with respect to overall subscriber reprogramming and infrastructure reconfiguration. It is M/A-COM's understanding that these users will use the EDACS simulcast system during the reconfiguration of their conventional channels of communications.
6. The second touch to subscriber equipment will occur at the time of regional NPSPAC Mutual Aid reconfiguration, which is estimated to occur after the County's Lower 120 and Expansion Band reconfigurations. This touch will reprogram the subscriber frequency sets for NPSPAC Mutual Aid.

Subscriber Equipment Inventory

Table 8 below presents a listing (provided by Tusa Consulting Services) of all subscriber radio equipment currently in use by Pasco County and depicts which models need to be reprogrammed or replaced. Replacement units are to be provided by Sprint-Nextel. Accessories for replacement radios such a battery chargers, spare batteries, belt clips, speaker-microphones, dual control heads, data cables, etc. were not provided in the customer specification (as indicated in Table 9 below). Accessory types and quantities must be determined by the County and submitted to Sprint-Nextel so that these items can be provided.

Blocks which are highlighted in TAN indicate radios that must be replaced and the replacement model number is indicated based upon the latest information supplied by M/A-COM. Blocks which are highlighted in YELLOW are those units that can be reprogrammed. Finally equipment, which has a block highlighted in GREEN, is reprogrammable for NPSPAC 806-809 MHz once a modification is made to "ProGrammer" supplied by M/A-COM. Out of the 2,266 existing radio units, approx. 698 will must be replaced (286 mobiles, 406 portables, and 6 desktop control stations). The remaining 1,568 subscriber radios must be reprogrammed or modified.

Table 8 – Pasco County Subscriber Radio Equipment Inventory

Existing Radio	Co. & Muni (Qty)	Sheriff (Qty)	Total	Replace	Reprogram	Modify with Programmer	Mobile or Portable or Control Sta.
500M	82	24	106			Modify	Mobile
700P	69	414	483		Reprogram		Portable
725M	24	195	219		Reprogram		Mobile
FMD	3	5	8	Replace			Mobile
JAGUAR-725M	10		10		Reprogram		Mobile

Existing Radio	Co. & Muni (Qty)	Sheriff (Qty)	Total	Replace	Reprogram	Modify with Programmer	Mobile or Portable or Control Sta.
LPE-200	75		75			Modify	Portable
LPE-50	8		8			Modify	Portable
M7100	15	55	70		Reprogram		Mobile
MDX	156	67	223	Replace			Mobile
MDX-Desk		1	1	Replace			Control Sta.
MPA	223	92	315	Replace			Portable
MPD	88	3	91	Replace			Portable
MRK	22	84	106			Modify	Portable
MTD	118		118		Reprogram		Mobile
ORION	113	30	143			Modify	Mobile
ORION-Desk	4		4			Modify	Control Sta.
P5100	51	11	62		Reprogram		Portable
P700 (700P)	4		4		Reprogram		Portable
P7100	85	75	160		Reprogram		Portable
RANGR	1	54	55	Replace			Mobile
RANGR-Desk	3	2	5	Replace			Control Sta.
TOTAL			**2266**				

The tables below identify the required subscriber radio accessories requiring replacement.

Table 9 – Estimated Portable Accessories Requiring Replacement
(To be determined by customer)

Item(s)	Qty	To Be Replaced By	Cost
Speaker Microphone / Speaker Microphone Antenna (SMA)	TBD	Sprint-Nextel	n/a
Antenna	TBD	Sprint-Nextel	n/a
Spare Extra High Capacity Battery	TBD	Sprint-Nextel	n/a
Single Charger	TBD	Sprint-Nextel	n/a
Vehicular Charger	TBD	Sprint-Nextel	n/a
Belt Clip	406	Sprint-Nextel	n/a
D-Swivel Belt Loop	406	Sprint-Nextel	n/a

Table 10 -- Estimated Mobile Accessories Requiring Replacement
(To be determined by customer)

Item(s)	Qty	To Be Replaced By	Cost
Standard MIC	TBD	Sprint-Nextel	TBD
Dual Control Heads	TBD	Sprint-Nextel	TBD

Data Cables	TBD	Sprint-Nextel	TBD

Table 11 – Estimated Desktop Control Stations Requiring Replacement

Item(s)	Qty	To Be Replaced By	Cost
Control Station, Tone Remote Control	6	M/A-COM	To Be Provided By Sprint
Desktop MIC	6	M/A-COM	To Be Provided By Sprint

Subscriber Equipment Reconfiguration Costs

This section identifies the subscriber reconfiguration tasks and costs required to prepare and reconfigure the subscriber equipment.

Table 12 -- Subscriber Reconfiguration Labor Tasks and Costs

Task	Effective Number of Man-Days	Man-Day Rate	Cost
Touch 1Programming 2266 Radios (6 techs)	23	$1,441.30	$198,899.40
Touch 1 Programming 6 Replacement Control Stations	1	$1,441.30	$1,441.00
Touch 1 MIA 10% (227 Radios) 6 techs	2.5	$1441.30	$21,619.50
Touch 1 Install and Remove 286 Replacement Mobiles 6 Techs	24	$1562.00	$224,928.00
Remove and Install 6 Replacement Control Stations	6	$1,441.30	$8,648.00
Touch 2 – Reprogram 2,148* Mobile and Portables 6 techs	23	$1,441.30	$198,899.40
Final Configuration – Reprogram 10 Ctrl Stations	5	$1,015	$5,075.00
System Engineering - Installation and Personality Development Support	3	$1400	$4200.00
Quality Assurance Manager	94.5	$1065	$100,642.50

*Note: This step is to modify the frequency set associated with the NPSAPC Mutual The 118 MTD mobiles are not included in this personality replacement since they are not capable of NPSPAC channels

Infrastructure Equipment Reconfiguration

Project Management

This section identifies the tasks and costs associated with managing and administering the reconfiguration of the infrastructure equipment and systems.

Table 13 -- PM Reconfiguration Tasks and Costs

Task	Effective Man/Days	Man/Day Rate	Cost
Project Management-*Simulcast System*	260	$1,400	*
Project Management-*Simulcast System (Service Shop)*	10	$1,775	$17,750
Project Management-*Dade City Conventional*	2	$1,400	*
Project Management-*Dade City Conventional (Service Shop)*	1	$1,775	$1,775
Project Management-*Pasco Co. Conventional*	2	$1,400	*
Project Management-*Pasco Co. Conventional (Service Shop)*	1	$1,775	$1,775
Project Management-*Mutual Aid Site*	2	$1,400	*
Project Management-*Mutual Aid Site (Service Shop)*	1	$1,775	$1,775
Project Management-*Mutual Aid Transportable*	2	$1,400	*
Project Management-*Mutual Aid Transportable (Service Shop)*	1	$1,775	$1,775
Project Management-*NPSPAC MA Transportable*	2	$1,400	*
Project Management-*NPSPAC MA Transportable (Service Shop)*	1	$1,775	$1,775
Quality Assurance Manager	9 months	$21,300	$191,700

*M/A-COM Project Management costs are now handled on a corporate level with Sprint, therefore all costs associated with the assigned Project Manager have been removed from this proposal.

Travel Costs

For simplicity, the table below identifies all the travel and lodging (T&L) costs associated with infrastructure reconfiguration. Travel expenses to Pasco County, FL by various project personnel are itemized below.

Table 14 – Infrastructure Reconfiguration Travel Costs

Description	Number of Units	Unit	Rate	Cost
Simulcast System				
Project Management T&L	20	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	140	Days	$262.70	$36,778
System Engineering T&L	40	Days	$320.25	$12,810

Quality Assurance Manager T&L	9	Trips	$3,685	$33,165
City of Dade City Conventional System				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525
Pasco County Conventional System				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525
System Engineering T&L	2	Days	$320.25	$640.50
Florida Mutual Aid Conventional Site				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525
System Engineering T&L	2	Days	$320.25	$640.50
Florida Mutual Aid Conv. Transportable Site				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525
System Engineering T&L	2	Days	$320.25	$640.50
NPSPAC Mutual Aid Conv. Transportable Site				
Project Management T&L	1	Trips	$1005	*
Project Management T&L (Service Shop)	1	Trip	$1,427.10	$1,427
Installation Technician T&L (2 techs)	2	Days	$262.70	$525

*M/A-COM Project Management costs are now handled on a corporate level with Sprint, therefore all costs associated with the assigned Project Manager have been removed from this proposal.

RF Site Infrastructure Reconfiguration

The RF site infrastructure will be reconfigured in the following order:

- Florida Mutual Aid Conventional System – Site

- Florida Mutual Aid Conventional System – Transportable
- Trunked EDACS Simulcast System
- Pasco County Conventional System
- City of Dade City Conventional System
- NPSPAC Mutual Aid Conventional Systems

Mutual Aid Conventional Systems

As previously stated, the Florida Mutual Aid (MA-FLA) station will be reconfigured at the outset of the infrastructure reconstruction of the Pasco County project. This Mutual Aid system uses a shared channel through which a response to an emergency or disaster situation may be facilitated by many diverse agencies.

As stated above, Pasco has two MA-FLA systems. One is a fixed MASTR II single channel site at the Darby tower. The second MA-FLA system is part of the County's 4-channel transportable MASTR III transportable system (1 channel MA-FLA, and 3 channels NPSPAC Mutual Aid). The transportable system is normally stored in New Port Richey. It consists of a trailer equipped with four M/A-COM MASTR-III conventional repeaters, a 100 foot crank-up tower, and generator.

For the transportable systems, M/A-COM will reprogram and retune MASTR-III base stations to rebanded channel assignments in conformance with all FCC levels or specifications. For with the MA-FLA MASTR-II base station, Sprint Nextel will provide MASTR III base station equipment programmed to operate on the rebanded frequency assignments.

The table below summarizes the key equipment to be reconfigured and added in order to maintain Mutual Aid functionality during the reconfiguration.

Table 15 -- Mutual Aid Equipment Reconfiguration

System	Existing Equipment	New Equipment	Rationale
Fixed Site (Darby)	(1) MASTR II 1-channel Conventional Repeater	Vega Back-to-Back Repeater Interface (Swing) & Mastr III Repeater, Power Supply , and Cabinet (Replacement)	Existing MASTR II Mutual Aid conventional repeater replaced with MASTR III equipment provided by Sprint-Nextel. Vega Rebanding Panel will allow Pasco units and mutual aid responders to operate on newly allocated frequencies. Both existing and replacement stations will now be associated with the replacement transmitter combiner for the Darby site. Back-to-back repeater interface will be provided by Sprint Nextel, installed by M/A-COM and temporarily deployed until completion of statewide rebanding of MA-FLA.

System	Existing Equipment	New Equipment	Rationale
Transportable Site	(1) MASTR III 1-channel Conventional Repeater		Retune repeater and combiner. No change to the antenna system.
	(3) MASTR III Conventional Repeaters		Retune repeaters and combiner. No change to the antenna system.

State of Florida Mutual Aid Conventional (Channel 96) – Darby Site

The 800 MHz Statewide Mutual Aid channel (M/A-FLA), 808/853.3875 MHz is installed and in operation at the Darby TX/RX site. This station will be replaced with a MASTR III repeater station configured to operate on 809/854.6375 MHz as described earlier. The existing station is a GE MASTR II 800 MHz conventional repeater that utilizes the simulcast system's antenna system, including transmitter combiner and receiver multicoupler. For MA-FLA, M/A-COM proposes a temporary back-to-back repeater solution using both old and new repeater stations to maintain interoperability during reconfiguration. This solution will be transparent to users and dispatchers, alike. There will be no change in access, operation, or control of the affected channels. During reconfiguration, it will be possible for users to access the channel either on its original frequency assignment or its rebanded frequency assignment. Access and operation are preserved whereby dispatchers transmit simultaneously to users on original and rebanded assignments. Users may transmit on either assignment and be heard by the dispatcher and all users regardless of frequency assignment received. Moreover, functionality will be retained over MA-FLA operations by providing dispatch control of repeater enable/disable exactly as it is today and prescribed by the State of Florida Law Enforcement Communications Plan.

M/A-COM will relocate the existing M/A-FLA repeater operating on the old channel assignment (Channel 96) to the replacement equipment shelter at Darby and interconnect it with the replacement transmitter combiner and receiver multicoupler at the Darby site. At the same time, M/A-COM will install the replacement MASTR III repeater tuned to the new MA-FLA channel assignment (Channel 146). The two stations will then be interconnected on a back-to-back basis using a specialized Vega Rebanding Panel interface to enable crosspatch operation between the two stations and transparent control of the stations by the dispatcher. At the completion of the relocation of the existing MA-FLA system and installation of the replacement system and rebanding interface, M/A-COM will test functionality, and coverage pursuant to Method 1 coverage testing.

M/A-COM's back-to-back repeater solution for the MA-FLA system at Darby will consist mainly of off-the-shelf products. The existing station will continue to be used during the reconfiguration period as swing equipment operating on the old MA-FLA channel assignment.. At the outset of the reconfiguration process, the replacement base station will be installed on the new frequency assignment on Channel 146 (854.6375 MHz). In order to provide a fully interoperable solution on old and new frequency assignments during the reconfiguration period, M/A-COM will add swing equipment to the Mutual Aid channel. The temporary equipment items will include one VEGA Model SYS000010000 Rebanding Panel. As part of the replacement equipment, M/A-COM will install one cabinet to house the replacement MASTR III repeater station , power supply and Vega equipment. All

swing equipment will be operational for the duration of the statewide rebanding of MA-FLA Channel 96.

It is the VEGA adapter panel that provides the functionality required for the parallel operation of two base stations and the back-to-back repeater interface. Operation is such that tone remote control of the MA-FLA channel by the dispatcher causes both old and new frequency assignments to key and transmit simultaneously. In the reverse direction, subscribers working through either the old or new channel assignments would be heard by all parties to a particular mutual aid event. Dispatcher control will be maintained at all times where the dispatcher will have priority over subscriber communications and the capability to enable and disable the repeat function of the various channels – all via standard tone control with no modification to operational procedures in place today.

The VEGA SYS000010000 Rebanding Panel which consists of a pair of IP-223 Dual IP Remote Adapter Panels can be described as an intelligent Tone Remote Adapter that, as a minimum, may extend (EIA) tone remote control from a dispatch console position to a remotely located base station via an IP communications circuit. In typical use, one IP-223 unit resides at the dispatch location and operates in Console Mode converting the console's analog keying tones into Ethernet traffic. At the remote base station location, a second IP-223 operating in Tone Mode will convert the IP data packets back to tone control to key and control the base station. Each VEGA IP-223 is factory-equipped to control up to two base stations and may additionally be configured in Crosspatch Mode to provide interoperability between two connected base stations or, for that matter, any base station(s) connected to the IP network.

A specialized configuration of IP-223 will be utilized for rebanding the MA-FLA channel operated by Pasco County. The IP-223 system is not used in its traditional role of extending base station control via an IP network. Rather, it is employed to provide parallel control of two base stations operating with old and new channel assignments and, additionally, will provide crosspatch communication between the two base stations. In this configuration, two IP-223 panels are still required, but they are both collocated with the mutual aid base stations. One IP-223 operates in Console Mode and receives dispatcher audio and control tones from the mutual aid connectivity network. The second IP-223 is configured for Tone Mode and is interfaced with the two base stations. The two IP-223 panels are connected back-to-back using their Ethernet interfaces. A further specialization of the IP-223 equipment is that the repeater enable and disable functionality will be mapped to also enable and disable the crosspatch of the two base stations. Therefore, when the dispatcher disables the repeat function of the base stations, the crosspatch between stations will be disabled as well so that there is no potential for inadvertent keying of stations when not is use. This specialized functionality requires a one-time modification of the standard programming code contained within the IP-223, which has already been commissioned by Sprint Nextel.

The remaining County Mutual Aid facilities will be reconfigured as follows:

State of Florida Mutual Aid Conventional (Channel 96) – Transportable System

- Some downtime to reband is acceptable.
- Station is MASTR III. M/A-COM will reprogram and retune station to 854/809.6375 MHz.
- Station shares frequency standard, 5-channel combiner, TTA and receiver multicoupler with NPSPAC Mutual Aid stations (I-TAC-2, I-TAC-3, and I-TAC-4).

- A common Brandywine Communications Model QFS-106 Frequency Standard appears to provide frequency reference to State of Florida Mutual Aid station and each of three NPSPAC Mutual Aid channels.
- Combiner is dbSpectra DB8062F5-B 5-channel combiner currently configured as follows:

	868.0125
867.5125	867.0125
858.8125	853.3875
Antenna Port	

Only four of five combiner channels are currently in use. The channel tuned to 858.8125 MHz is currently unused. M/A-COM will retune this combiner channel to the rebanded channel assignment for the Florida Mutual Aid Channel (854.6375). The old Florida Mutual Aid channel assignment in combiner (853.3875) as well as originally assigned frequencies for TAC-2 (867.0125), TAC-3 (867.5125), and TAC-4 (868.0125) will be retained at this time. Combiner will now be configured as follows:

	868.0125
867.5125	867.0125
854.6375	853.3875
Antenna Port	

- Following reconfiguration of the Florida Mutual Aid channel, M/A-COM will test functionality, and coverage pursuant to Method 1 coverage testing.

During the Wave 3, Stage 2 reconfiguration period (NPSPAC), I-TAC-2, I-TAC-3, and I-TAC-4 will be retuned to new channel assignments.

NPSPAC Mutual Aid Conventional (I-TAC-2, I-TAC-3, and I-TAC-4) – Transportable System

- Some downtime to reband is acceptable.
- Stations are MASTR III. M/A-COM will reprogram and retune to newly assigned frequencies for I-TAC -2 (852.0125), I-TAC-3 (852.5125), and I-TAC-4 (853.0125). Stations are collocated in same cabinet as Florida Mutual Aid Channel described above.
- Station shares frequency standard, 5-channel combiner and receiver multicoupler with State of Florida Mutual Aid conventional channel.
- M/A-COM will retune combiner channels for I-TAC-2, I-TAC-3, and I-TAC-4 from old channels assignments to new rebanded channel assignments. Since the combiner manufacturer prescribes the lowest channels toward the antenna port, the combiner will be completely retuned. Combiner will now be in its final, rebanded configuration as follows:

	TBD
854.6375	853.0125

852.5125	852.0125
Antenna Port	

- Following reconfiguration of the NPSPAC Mutual Aid channels, M/A-COM will test functionality, and coverage pursuant to Method 1 coverage testing.
- Reconfiguration will occur either at end of Wave 3 rebanding period or at time of Hillsborough County NPSPAC reconfiguration. Requires remobilization.

Other Conventional Systems

The reconfiguration of two Lower 120 conventional systems is summarized as follows:

City of Dade City Conventional Channel - Edwinola Building

- Station is GE MASTR II and is an interim version between original MASTR II and MASTR IIe.
- Station located at top of stairwell of 8+ story apartment building. Walk up approximately two flights of stairs from 8th Floor, which is accessible by elevator.
- Some downtime to reband is acceptable beginning midway between the reconfiguration of City of Dade City subscribers.
- At the appropriate time during subscriber reconfiguration, M/A-COM will replace existing MASTR II equipment with MASTR III equipment consisting of repeater station and power supply and programmed to rebanded channel assignments.
- Duplexer is DB Products manufacture, 2-cavity, GE Part No. 19C307190-P1. M/A-COM will retune duplexer in field to rebanded channel assignments.
- M/A-COM will coordinate reconfiguration of repeater system with the County and test functionality, and coverage pursuant to Method 1 coverage testing.

Pasco County Conventional Channel - Dade City Site

1. Station is EF Johnson Repeater; vintage approx 1980. Essentially consists of two mobile units' chassis for TX and RX, respectively, TPL Power Amp and repeater control shelf. County reports this equipment uses crystallized channel elements. M/A-COM has no component parts for this equipment and no documentation and cannot reconfigure this equipment to its rebanded channel assignment. Accordingly, M/A-COM is proposing replacement of station with MASTR III equipment, including MASTR III repeater station, power supply, and cabinet.
2. Duplexer is Microwave Associates Model 7Z147 tuned for sub-bands 806-811 MHz and 851-856 MHz. No documentation is available. M/A-COM proposes replacement.
3. At the appropriate time during subscriber reconfiguration, M/A-COM will remove the existing repeater station, duplexer, and cabinet from operation and install the replacement repeater station, power supply, duplexer, and cabinet at the Dade City site.

4. M/A-COM will coordinate cutover to the replacement repeater system with the County and test functionality, and coverage pursuant to Method 1 coverage testing.

Table 16 – Other Conventional Equipment Reconfiguration

System	Existing Equipment	Replacement Equipment	Rationale
Fixed Site Dade City System (Edwinola Site)	(1) MASTR II 1-channel Conventional Repeater	Mastr III 1-channel Conventional Repeater Station and Power Supply	Per M/A-COM – Nextel Agreement, MASTR II equipment will be replaced with MASTR III.
Fixed Site Pasco Co. System (Dade City Site)	EF Johnson 1-channel Conventional Repeater	Mastr III 1-channel Conventional Repeater Station, Power Supply, Duplexer, and Equipment Cabinet	M/A-COM cannot reconfigure this station; replacement recommended for station and duplexer. No change to the antenna system is required.

EDACS Reconfiguration for Pasco County

The existing EDACS 3-Site, 8-Channel Simulcast consist of the following:

- Channels 1-5 are early Mastr II.
- Channel 6 is mid to late Mastr II.
- Channel 7 is Mastr IIe.
- Channel 8 is Mastr III, field modified to match Mastr II simulcast specifications, no documentation.

M/A-COM will replace all RF site and simulcast control point equipment pursuant to agreement between Sprint Nextel and M/A-COM.

Table 17 -- EDACS Reconfiguration Equipment

	Existing Model Number	Replacement Equipment	Rationale
Repeater Stations & Simulcast Control Equipment, 3-Site, 8-Channel Simulcast Trunking (Dade City, Darby, & New Port Richey Sites)	EDACS Electrocom Simulcast System	EDACS GPS Simulcast System configured in new shelters at all 3 sites	Retuning existing system represents significant risk to County's public safety operations.
Tx Combiner Dade City Site	TX/RX Systems	dB Spectra DB8062F8-B	New combiner is required to minimize down time and maintain crucial public safety traffic capacity and GOS.

	Existing Model Number	Replacement Equipment	Rationale
Tx Combiner Darby Site	TX/RX Systems	dB Spectra DB8062F11-B	New combiner is required to minimize down time and maintain crucial public safety traffic capacity and GOS. Combiner capacity is also provided for State of Florida Mutual Aid channel and temporary back-to back operation, and State Attorney channel.
Tx Combiner New Port Richey Site	TX/RX Systems	dB Spectra DB8062F8-B	New combiner is required to minimize down time and maintain crucial public safety traffic capacity and GOS.
Tower-Top Amplifier and Rx Multicoupler Dade City Site	TX/RX Systems	dB Spectra AT8TMA10R and DBCRNX-8AN	New multicoupler is required to minimize down time and maintain crucial public safety traffic capacity and GOS. Difficult to strip old multicoupler out of existing rack and re-rack into new configuration.
Tower-Top Amplifier and Rx Multicoupler Darby Site	TX/RX Systems	dB Spectra AT8TMA10R andDBCRNX-16AN	New multicoupler is required to minimize down time and maintain crucial public safety traffic capacity and GOS. Difficult to strip old multicoupler out of existing rack and re-rack into new configuration.
Tower-Top Amplifier and Rx Multicoupler New Port Richey Site	TX/RX Systems	dB Spectra AT8TMA10R andDBCRNX-8AN	New multicoupler is required to minimize down time and maintain crucial public safety traffic capacity and GOS. Difficult to strip old multicoupler out of existing rack and re-rack into new configuration.
Tx Antenna System Rx Antenna Dade City Site	RFS BMR-10 w/Andrew LDF6 RFS BMR-10 w/Andrew LDF5	RFS BMR-10 w/Andrew LDF6 RFS BMR-10 w/Andrew LDF5	Replacement antenna systems required to minimize down time and preserve coverage during transition to replacement system.
Tx Antenna System Rx Antenna System Darby Site	RFS BMR-10 w/Andrew LDF6 RFS BMR-12 w/Andrew LDF5	RFS BMR-10 w/Andrew LDF6 RFS BMR-12 w/Andrew LDF5	Replacement antenna systems required to minimize down time and preserve coverage during transition to replacement system.
Tx Antenna System Rx Antenna System New Site	RFS BMR-10 w/Andrew LDF6 RFS BMR-10 w/Andrew LDF5	RFS BMR-10 w/Andrew LDF6 RFS BMR-10 w/Andrew LDF5	Replacement antenna systems required to minimize down time and preserve coverage during transition to replacement system.

Table 18 – EDACS Combiner Configuration Table – Dade City

Combiner						
Existing Configuration				Proposed Configuration		
Channel	**Frequency**	**Separation**		**Channel**	**Frequency**	**Separation**
1	855.2250			1	855.2250	
2	855.8125	0.5875		2	855.8125	0.5875
3	856.2250	0.4125		3	856.2250	0.4125
4	856.8375	0.6125		4	856.8375	0.6125
5	857.8375	1.0000		5	857.8375	1.0000
6	858.8375	1.0000		6	858.3875	0.5500
7	859.8375	1.0000		7	858.8375	0.4500
8	860.8375	1.0000		8	859.8375	1.0000
Minimum Freq Spacing		0.4125		Minimum Freq Spacing		0.4125

Table 19 – EDACS Combiner Configuration Table – Darby

Combiner					
Existing Configuration			Proposed Configuration		
Channel	Frequency	Separation	Channel	Frequency	Separation
1	852.2625		1	852.2625	
2	853.3875	1.1250	2	853.3875	1.1250
3	855.2250	1.8375	3	854.6375	1.2500
4	855.8125	0.5875	4	855.2250	0.5875
5	856.2250	0.4125	5	855.8125	0.5875
6	856.8375	0.6125	6	856.2250	0.4125
7	857.8375	1.0000	7	856.8375	0.6125
8	858.8375	1.0000	8	857.8375	1.0000
9	859.8375	1.0000	9	858.3875	0.5500
10	860.8375	1.0000	10	858.8375	0.4500
			11	859.8375	2.3750
Minimum Freq Spacing		0.4125	Minimum Freq Spacing		0.4125

Table 20 – EDACS Combiner Configuration Table – New Port Richey

Combiner					
Existing Configuration			Proposed Configuration		
Channel	Frequency	Separation	Channel	Frequency	Separation
1	855.2250		1	855.2250	
2	855.8125	0.5875	2	855.8125	0.5875
3	856.2250	0.4125	3	856.2250	0.4125
4	856.8375	0.6125	4	856.8375	0.6125
5	857.8375	1.0000	5	857.8375	1.0000
6	858.8375	1.0000	6	858.3875	0.5500
7	859.8375	1.0000	7	858.8375	0.4500
8	860.8375	1.0000	8	859.8375	1.0000
Minimum Freq Spacing		0.4125	Minimum Freq Spacing		0.4125

The following is a step-by-step procedure for retuning the existing EDACS system. All outages will be coordinated beforehand with the County.

- Step 1 M/A-COM will add equipment shelters and emergency generator systems at the Dade City, Darby, and Newport Richey sites to accommodate the replacement simulcast control and RF station equipment.
- Step 2 The County will provision microwave and/or fiber circuits to provide one T1 circuit each between the Dade City Control Point site and Darby TX/RX site, the Dade City Control Point site and the New Port Richey TX/RX site, and the Dade City Control Point site and the CEC/IMC. The new TDM multiplex equipment will then be installed and tested by M/A-COM.
- Step 3 For the duration of the reconfiguration period, M/A-COM will reconfigure the Console Electronics Controller (CEC) as an Integrated Multisite Controller (IMC) with the necessary hardware to support the replacement simulcast system as an additional site. System software will be reconfigured as necessary to support this new interface and software licenses will be temporarily applied. At the appropriate time, M/A-COM will interconnect the IMC and the replacement simulcast control point.
- Step 4 M/A-COM will expand the existing Communications Site Director (CSD) to control an additional site (the replacement simulcast subsystem). At the appropriate time, M/A-COM will interconnect the CSD with the replacement simulcast control point via a County-provided 4-wire communications circuit. M/A-COM will provide RS232 asynchronous serial modems at each end of this link. Until cutover of County operations to the replacement simulcast subsystem, the existing CSD will remain at the existing simulcast control point. At a time agreed to by the County, M/A-COM will disconnect the CSD from the existing simulcast subsystem and relocate the existing CSD to the replacement simulcast control point.
- Step 5 M/A-COM will install the replacement control point equipment in the additional equipment shelter provided by M/A-COM at the Dade City site. Given the space constraints, condition, and disposition of the current control point location, M/A-COM will collocate the replacement control point with the replacement Dade City RF equipment in the additional shelter. Additionally, cost savings are realized when the simulcast control point is collocated with an RF site. During installation of the replacement control point, interconnection will be made with the IMC and the CEC.
- Step 6 M/A-COM will install the replacement simulcast site common equipment, RF base stations, antenna systems, tower-top amplifiers, receiver multicouplers and combiners in the additional shelters at Dade City, Darby, and New Port Richey sites.
- Step 7 At the Darby site, two additional conventional channels currently share the transmitter combiner with the EDACS trunked system. These are:
  - Pasco County's Florida Statewide 800 MHz Mutual Aid channel (MA-FLA - currently 808/853.3875)
  - State Attorney (currently 807/852.2625)

At this point in the trunked system reconfiguration at the Darby site, these stations may be reconfigured to their new rebanded channel assignments. The specific reconfiguration of the MA-FLA channel, which includes back-to-back repeater operation on old and new channel

assignments, is discussed under *Mutual Aid conventional Systems* earlier in this Statement of Work. With respect to the State Attorney conventional system, M/A-COM understands that this system will be reconfigured by others. M/A-COM will coordinate the County's system reconfiguration with the State Attorney and notify the State Attorney when the replacement transmitter combiner and receiver multicoupler are available for use. The State Attorney must relocate its repeater station to the replacement equipment shelter at the Darby site in order to make connection to the replacement combiner and receiver multicoupler, which will be tuned to the State Attorney's rebanded channel assignment.

- Step 8 The replacement EDACS simulcast subsystem components will be interconnected, configured, and tested to the extent possible without actually going on the air. For all testing relating to the commissioning of the replacement simulcast subsystem, the replacement system will be provisioned with a unique Site ID so that there will be no interference to operations on the existing EDACS system.
- Step 9 During periods of typically lower user activity, individual channels on the existing system (except Channel 6) will be disabled and removed from system use via the radio system's management terminal, CSD. The corresponding channel of the replacement simulcast system will be enabled, tested and aligned for proper simulcast operation countywide. During this time, proper trunked operation and connectivity to dispatch via the IMC will also be verified. This can be accomplished on a site-by-site basis utilizing specially programmed test portables and the new Channel 6 station operating as a control channel to effect a 2-channel trunked simulcast system. This process will be repeated for all channels except Channel 6, which is tested and aligned on its new frequency assignment without affect on existing trunked operations.
- Step 10 When Step 9 is complete, system operations will be transitioned to the replacement simulcast subsystem. Prior to cutover, the replacement system will be reprogrammed with the Site ID of the existing simulcast system. M/A-COM will station personnel at the three RF sites, IMC, and the CSD. Additionally, M/A-COM understands that County personnel will be stationed throughout the County to verify proper simulcast operation after system cutover. M/A-COM will provide a reliable means of communication that is independent of the trunked system between everyone involved in the cutover process. The cutover will require that system operations be disabled for a period of a few minutes; therefore it will be scheduled during a period of minimum system activity such as midweek between 2AM and 5AM. At the appointed time, the existing system will be disabled, the necessary configuration changes made to the CSD and IMC, and the replacement system enabled. At this time the replacement system will be quickly tested to be sure that it is operating properly. If any issues are uncovered during this initial functional testing, system operation will be reverted back to its original configuration on the existing system and the issues resolved prior to reattempting cutover.
- Step 11 Channel 6 will remain disabled until the completion of the reprogramming of all user equipment, after which it will be returned to the trunked frequency pool.
- Step 12 For a period to be agreed upon between the County and M/A-COM, the replaced simulcast RF subsystem will remain energized but disabled (except for the old Channel 6, which will be permanently removed from service) so as to be readily available as a backup in the event of early life failures or system issues that may manifest themselves on the replacement simulcast subsystem. Functional and coverage tests of the new system will take place during this period.

- Step 13 Upon notification and coordination with the County, M/A-COM will relocate the CSD from the old simulcast control point to the new simulcast control point.
- Step 14 The replaced simulcast RF and control point equipment will be decommissioned, dismantled, and removed by M/A-COM to a location to be designated by the County.
- Step 15 M/A-COM will convert the IMC back to a CEC to achieve comparable operation and capability of the pre-rebanded system.
- Step 16 M/A-COM will ship the replaced simulcast control and RF infrastructure equipment to Nextel.
- Step 17 M/A-COM will resolve any punch list items that may exist following system cutover. The Simulcast subsystem implementation and cutover is now complete.

Infrastructure Reconfiguration Costs

The table below itemizes the infrastructure equipment to be replaced by M/A-COM during infrastructure reconfiguration.

Table 21 -- Infrastructure Equipment Costs

Item(s)	Qty	Cost
RF Sites		
GPS Simulcast System	1	To be Provided by Sprint
Conventional Mastr III w/Duplexer (Pasco Co)	1	To be Provided by Sprint
Vega Back-to-Back Repeater Assy. (Mutual Aid-Darby	1	To be Provided by Sprint
Civils (Shelter, Generator, UPS, Antenna Hang, Other Services)	3	To be Provided by Sprint
Switching Site		
CSD Upgrade Package	1	To be Provided by Sprint
CEC Upgrade Package	1	To be Provided by Sprint

Table 22 – Infrastructure Labor Costs

Task	Effective Man-Hours	Man-Hour Rate	Cost
GPS Simulcast System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Order Processing, Drawing Updates, Meeting	928	$175	$162,400.00

Task	Effective Man-Hours	Man-Hour Rate	Cost
Support, Installation Support, Site Interconnect definition, Cutover Plan Support, Customer Meeting and Design Review Support, Site Civils Support			
EDACS / Mutual Aid Equip Reconfiguration (Service Shop)	1120	$156.20	$174,944
Functional Acceptance Verification Total Tasks included in estimate: Post Reconfiguration Verification Support, Simulcast alignment Testing and Verification	56	$175	$9800.00
Functional Acceptance Verification Total Tasks included in estimate: Post Reconfiguration Verification Support, Simulcast alignment Testing and Verification (Service Shop)	20	$248.50	$4,970
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review (Method 3)	64	$175	$11,200.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review (Method 3) (Service Shop)	8	$275.13	$2,201

Task	Effective Man-Hours	Man-Hour Rate	Cost
City of Dade Conventional System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	24	$175	$4200.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00
Task	**Effective Man-Hours**	**Man-Hour Rate**	**Cost**
County Conventional System			

Task	Effective Man-Hours	Man-Hour Rate	Cost
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	40	$175	$7000.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00
Task	**Effective Man-Hours**	**Man-Hour Rate**	**Cost**
State of FL Mutual Aid Conventional System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	68	$175	$11,900.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00
Task	**Effective Man-Hours**	**Man-Hour Rate**	**Cost**
State of FL Mutual Aid Transportable Conventional System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	56	$175	$9800.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00
Task	**Effective Man-Hours**	**Man-Hour Rate**	**Cost**

Task	Effective Man-Hours	Man-Hour Rate	Cost
NPSPAC Mutual Aid Transportable Conventional System			
System Engineering Support			
Infrastructure Reconfiguration Total Tasks included in estimate: Drawing Updates, Meeting Support, Installation Support, Cutover Plan Support, Customer Meeting and Design Review Support	32	$175	$5600.00
Functional Acceptance Verification Total Tasks included in estimate: Pre and Post Reconfiguration Verification Support	4	$175	$700.00
Coverage Verification Total Tasks included in estimate: Pre and Post Measurement Data Review	4	$175	$700.00

Facilities Costs

No facility costs have been incorporated into this proposal.

Miscellaneous Components

No miscellaneous components are anticipated for the Pasco County reconfiguration.

Engineering and Verification

This section identifies the tasks and costs associated with system-wide planning, engineering and verification.

Table 23 – Planning Phase Labor Cost

M/A-COM System Engineering Planning Phase Support

GPS Simulcast

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review and Frequency Plan review	16	$175	**$2800.00**
Engineering and Implementation Total Tasks included in estimate: Tower Structural Requirement Development, SOW Development including cutover and acceptance plans. Review of interoperability migration	152	$175	**$26,600.00**
Customer Support Total Tasks included in estimate: Meeting Support	32	$175	**$5600.00**
Planning Travel and Living Tasks: Audit Support	4 days	$320.25	**$1281.00**

Training (CSD and Maintenance)	4 techs	$2800.00	**$7,200.00**

M/A-COM System Engineering Planning Phase Support

City of Dade Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	11	$175	**$1925.00**
Customer Support Total Tasks included in estimate: Meeting Support	4	$175	**$700.00**

M/A-COM System Engineering Planning Phase Support

County Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	11	$175	**$1925.00**
Customer Support Total Tasks included in estimate: Meeting Support	3	$175	**$525.00**

M/A-COM System Engineering Planning Phase Support

State of Florida Mutual Aid Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	20	$175	**$3500.00**
Customer Support Total Tasks included in estimate: Meeting Support	10	$175	**$1750.00**

M/A-COM System Engineering Planning Phase Support

State of Florida Mutual Aid Transportable Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	13	$175	**$2275.00**
Customer Support Total Tasks included in estimate: Meeting Support	3	$175	**$525.00**

M/A-COM System Engineering Planning Phase Support

NPSPAC Mutual Aid Transportable Conventional System

Task	Hours	Rate	Cost
Frequency Analysis Total Tasks included in estimate: Hardware Retune/Replace Review	2	$175	**$350.00**
Engineering and Implementation Total Tasks included in estimate, SOW Development including cutover and acceptance plans. Review of interoperability migration	12	$175	**$2100.00**
Customer Support Total Tasks included in estimate: Meeting Support	6	$175	**$1050.00**

Table 24 – Negotiation

M/A-COM System Engineering Negotiations Support

GPS Simulcast			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	8	$175	**$1,400.00**
Reconfiguration Phase Negotiations	32	$175	**$5600.00**

M/A-COM System Engineering Negotiations Support

City of Dade Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	1	$175	**$175.00**
Reconfiguration Phase Negotiations	2	$175	**$350.00**

M/A-COM System Engineering Negotiations Support

County Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	1	$175	**$175.00**
Reconfiguration Phase Negotiations	2	$175	**$350.00**

M/A-COM System Engineering Negotiations Support

State of Florida Mutual Aid Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	2	$175	**$350.00**
Reconfiguration Phase Negotiations	4	$175	**$700.00**

M/A-COM System Engineering Negotiations Support

State of Florida Mutual Aid Transportable Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	1	$175	**$175.00**
Reconfiguration Phase Negotiations	4	$175	**$700.00**

M/A-COM System Engineering Negotiations Support

NPSPAC Mutual Aid Transportable Conventional System			
Task	**Hours**	**Rate**	**Cost**
Planning Phase Negotiations	1	$175	**$175.00**
Reconfiguration Phase Negotiations	4	$175	**$700.00**

System verification is accomplished by the methods and practices prescribed by M/A-COM's Acceptance Verification Procedure (AVP) provided with this proposal. M/A-COM is not responsible for any coverage changes and interference resulting from the new reconfigured frequencies.

Contracts and Legal

Legal Fees

M/A-COM has no participation in tasks associated with FRA contract development.

FCC Licensing

M/A-COM has no participation associated with FCC licensing and other regulatory requirements as they pertain to the FRA.

Other Costs

Other Project Management

M/A-COM has no project management or administration tasks beyond those directly associated with subscriber and infrastructure equipment reconfiguration.

Table 25 – Freight

Tasks	Cost
Stage & Ship Infrastructure from Lynchburg, VA to Pasco County	To Be Provided by Sprint
Staging, Delivery to Site, Warehouse (Service Shop)	To Be Provided by Sprint
Ship Radios from Pasco County, FL to Sprint-Nextel (286 mobiles, 6 control stations, & 406 portables)	To be Provided by Sprint

Yearly Maintenance

Yearly maintenance cost is provided in Table 26. Cost covers 24x7, 2 hour response time.

Table 26 - Yearly Maintenance

Tasks	Cost
Backbone system maintenance for 3 site GPS Simulcast and IMC-Pasco County, Florida	$103,448.40 per year

Taxes

Since Pasco County is a governmental entity, none of the work or equipment proposed by M/A-COM is anticipated to be taxable.

Contingency

M/A-COM does not anticipate any contingency tasks associated with this reconfiguration project.

Pricing

All items and options are priced for execution concurrently. Should Pasco County choose not to purchase a given item and/or service upon execution of the initial purchase order or contract, and should the item and/or service be required at a later date, the said item and/or service may include additional costs.

ATTACHMENT C –

PASCO COUNTY REBANDING ISSUES DOCUMENT DATED OCTOBER 17, 2008 PREPARED BY TUSA CONSULTING SERVICES

Pasco County,
Pasco County Sheriff's Office,
And Dade City, FL
800MHz Radio Communications Network

Rebanding Issues Document

tusa | consulting services

Our Radio Systems Speak for Themselves.

October 17, 2008

Table of Contents

1 INTRODUCTION

On February 7th of this year Nextel formally accepted the FCC's Report and Order, previously released on July 8th, 2004 to facilitate the reconfiguration of the 800MHz band (806-824/851-869MHz) and thereby eliminate interference potential from Enhanced SMR operations (i.e. Nextel and to a very much lesser extent, SouthernLINC). The essence of the rebanding approach involves the creation of a new NPSPAC band between 806-809/851-854MHz, or 15MHz below the current 821-824/866-869MHz allocation. Ultimately, ESMR services such as Nextel will be confined to a block of frequencies in much the same way as cellular services are provisioned at 800MHz.

Compounding the simple magnitude and technical logistics involved in dealing with so many systems is the FCC's requirement that the total job must be completed within a scant 36 month period. Adding further complication and risk is the fact that most of these affected systems are used by public safety agencies where service interruption or access delays potentially jeopardize user safety and cannot be tolerated.

The Pasco County Sheriff's Office, Pasco County, and Dade City has subsequently contracted with Tusa Consulting Services (TCS) to assess their radio communications needs in light of the FCC's Report and Order and to establish the County's requirements in complying.

This action by the FCC affects the County's primary 800MHz trunked radio communications system consisting of a three site, 8-channel M/A-COM EDACS Simulcast system, Dade City's single 800 MHz conventional channel, the County's 800MHz conventional channel in Dade City, the County's conventional Mutual Aid channel at Darby, and a portable emergency communications facility owned by the County. It should be noted that the primary 800MHz trunked system is shared by virtually all county agencies as well as all cites' public safety departments.

One of the EDACS simulcast system's eight frequencies, Channel 6, must be retuned from 815/860.8375MHz to 813/858.3875MHz. This system is one of the very first 800MHz EDACS simulcast systems installed by the General Electric Co. (now M/A-COM). It is based on MASTR II base stations, ElectroCom simulcast control and equalization equipment, and NEC multiplex channel banks. All of this equipment has been out of production for some time and spare parts and manufacturer support for this equipment is extremely limited. As such, any modification to this system poses significant issues and risks which must be considered in the rebanding effort. Section 6 contains further information regarding these issues.

Dade City's conventional channel supports local operations within the City as well as providing backup for the City in the event of a failure of the primary simulcast system. It is a single channel MASTR II wire-line controlled conventional repeater installed on the roof of a building in Dade City. This station currently operates on 808/853.0375MHz and must be retuned to 809/854.4875MHz.

Pasco County operates a single 800MHz conventional station at the Dade City TX/RX site. This is a Johnson conventional repeater station that currently operates at 806/851.8125MHz and must be reconfigured to 813/858.8125MHz.

The County also operates a 4 channel, portable emergency radio system as well as a single permanently installed Mutual Aid channel that must be reconfigured. The

permanently installed Mutual Aid station is centrally located in the county at the Darby tower. This is a MASTR-II station and must be retuned from 808/853.3875MHZ to 809/854.6375MHz. The portable emergency system is trailer mounted and includes four M/A-COM MASTR-III conventional repeater stations, an emergency power generator, and a crank-up 100' tower. One of these stations is currently tuned to the State-wide 800MHz Mutual Aid channel (808/853.3875MHz) and must be retuned to 809/854.6375MHz. The other three stations are tuned to NPSPAC Mutual Aid channels TAC2, TAC3, and TAC4 (822/867.0125MHz, 822/867.5125MHz, and 823/868.0125MHz, respectively). Each of these NPSPAC stations must be retuned 15 MHz lower to 807/852.0125MHz, 807/852.5125MHz and 808/853.0125MHz. The timing of the retuning of the 3 NPSPAC channels must coincide with Wave 3, Phase 2 of the national reconfiguration plan.

The County has a fleet of over 2,200 user radios (portables, mobiles and control stations). This equipment spans the full range of user equipment manufactured for user on an EDACS network, from GE MPD's and FMD's to current production M/A-COM P7100 and M7100 series units. A listing of equipment, by agency is included in Appendix A. All of these units will be required to be retuned to the new trunked system and mutual aid frequencies. Any equipment that is incapable of being retuned to these new frequencies will require replacement with comparable units that can be appropriately retuned.

The County desires a turnkey set of services, to be provided by the radio system manufacturer, M/A-COM, for each of the services outlined below. Each of the primary systems will be rebanded separately, to maintain network reliability and the highest level of availability throughout the rebanding effort. This effort will include the following:

- Rebanding/Retuning of 800MHz EDACS Simulcast Infrastructure
- Rebanding/Retuning of 800MHz Dade City channel
- Rebanding/Retuning of County Conventional and Mutual Aid Systems
- Retuning/Rebanding of County user radio equipment
- Coverage Testing prior to and at conclusion of rebanding activities
- Maintenance of newly installed equipment/software

Additional details regarding the existing system infrastructure is provided in Section 3, and details regarding the desired system migration are provided in Section 7. The proposal response should include separate detailed pricing for each of the above services. While it is expected that M/A-COM will perform the simulcast system reconfiguration, it is possible that some or all of the conventional station retuning and user equipment reprogramming will be done by County personnel.

Commencement of rebanding activities will coincide with FCC-published schedules and must conclude within the 36-month window prescribed by the FCC. The County and its consultant, Tusa Consulting Services, will monitor the work of M/A-COM throughout the rebanding/retuning process and will provide supportive assistance, where necessary, to assure that M/A-COM has the access and flexibility necessary to complete the tasks described by this Rebanding Issues Document within the FCC-mandated time frame.

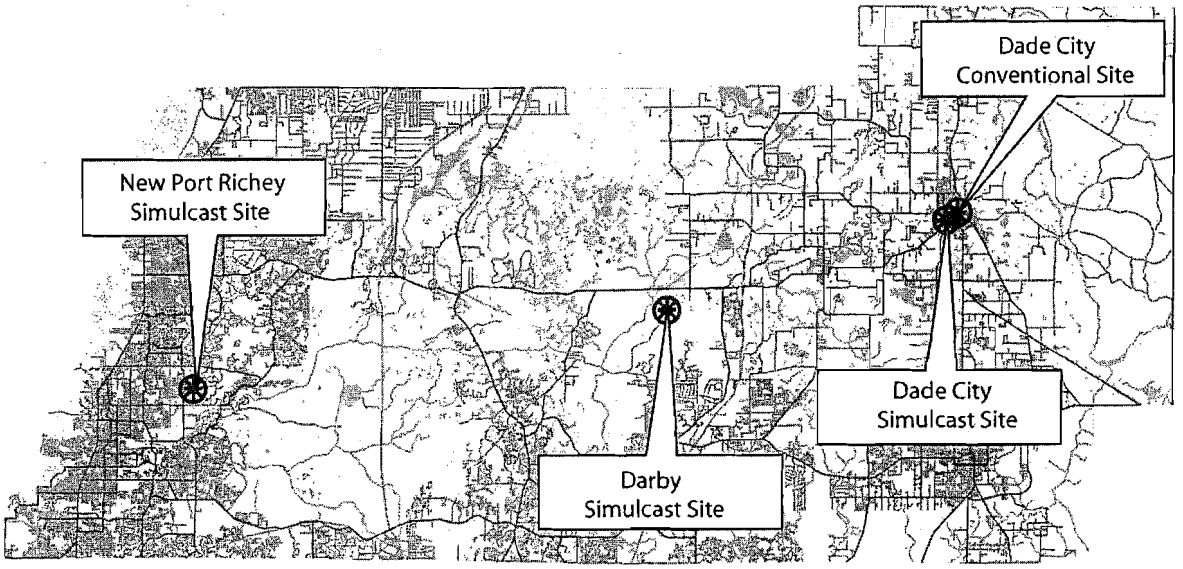
2 EXISTING COMMUNICATION SYSTEM FACILITIES

Over the period of June – Oct, 2006, TCS performed site inspections and surveys of each site containing critical 800MHz infrastructure components. TCS personnel conducted inspections and surveys of radio communication facilities located at several locations in Dade City, the simulcast TX/RX site in Darby, the TX/RX site in New Port Richey, and the Consolidated Communications Center in New Port Richey. The following is a detailed description of the condition, space usage and space availability within each facility.

Drawings further defining site locations and floor plans for each site are contained in Appendix C. Please refer to this supplemental information to determine if suitable space exists within existing facilities to accommodate any new or transitional equipment as may be necessary to support this rebanding/retuning project.

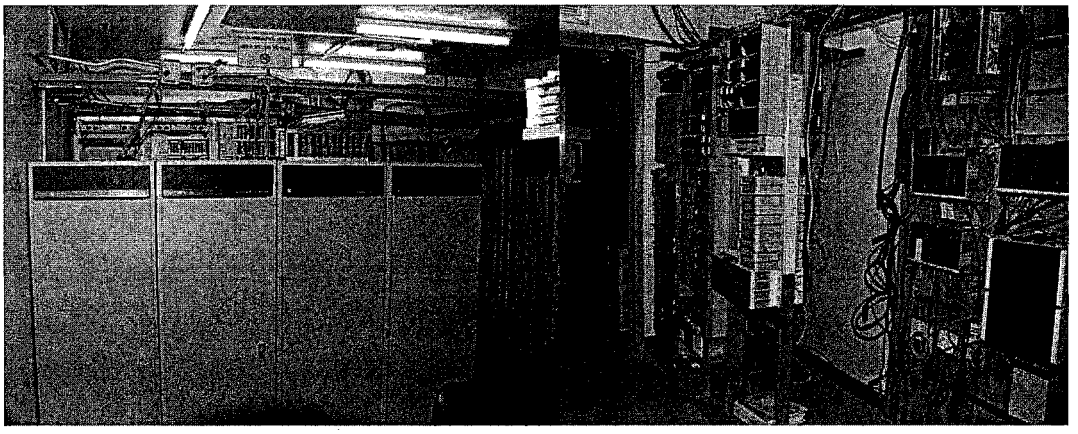
2.1 EDACS 8-CHANNEL SIMULCAST SYSTEM

Pasco County operates an 800MHz simulcast trunked radio network, supporting the County's Sheriff Department, County Fire-Rescue, the police and fire departments for all cities in the County including Dade City, New Port Richey, Port Richey, and Zephyrhills, and most of Pasco County's public service providers such as the County Utilities, Public Works, Public Transportation, and others. Approximately 2,200 users operate on this network and it processes nearly one million transmissions each month. The simulcast system is comprised of three site transmit/receive sites, a control point site, and a dispatch center. The following provides specific information on each.



2.1.1 DADE CITY CONTROL POINT

The control point for the Pasco County simulcast system is installed in several rooms on the lower floor of an old hospital building located at the Southwest corner of Howard and 15th Street in Dade City. When the system was first installed, this building served as the Dispatch Center and Eastern Headquarters for the Pasco County Sheriff's Office. Dispatch operations have subsequently moved to a new facility in New Port Richey and are no longer carried out at this location. Available space for new equipment at this location is quite limited.



Photos of Simulcast Control Point Equipment

The Dade City TX/RX site is located about 100 yards to the rear of this location and is connected via a fiber optic cable. The Appendix contains a site drawing showing the site layout and physical the relationship between control point and the TX/RX site. This site contains no RF equipment that must be retuned as a part of the rebanding effort.

2.1.2 DADE CITY TX/RX

The Dade City TX/RX site is located approximately 100 yards behind the control point location. It consists of a 19' x 21' concrete equipment shelter and a 285' guyed tower. The coordinates of the site are (NAD-83) N28° 21' 40.0", W82° 11' 54.3". The site includes HVAC, generator and other support systems typical for a public safety communications facility. This site has sufficient space available for some additional equipment. There are no known access issues associated with this site.

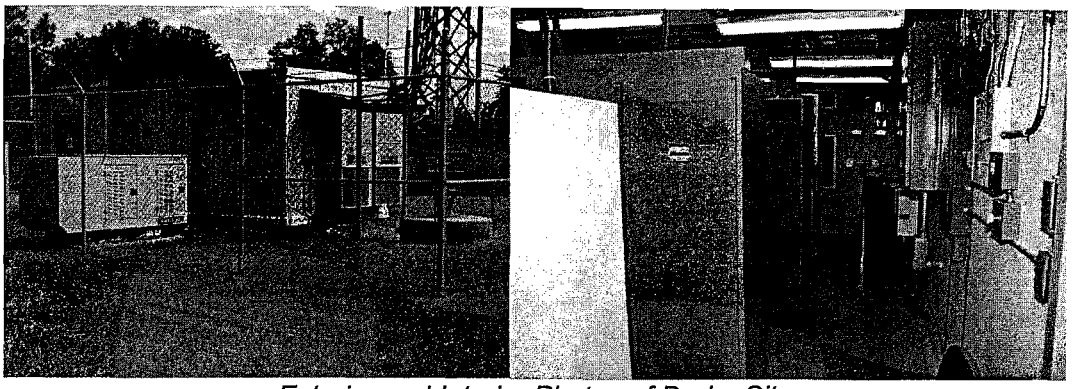
Exterior and Interior photos of Dade City RF Site

The tower (FCC tower registration number 1203111) is a 285 foot Rohn 80. This tower currently supports the following antennas and microwave dish:

Antenna Height (feet)	Antenna Type	Transmission Line	RF Output Power	Transmit Freq
285	BMR-10	LDF-6-50A'	400W (combined)	855.8125 856.8375 857.8375 858.8375 859.8375 860.8375 855.2250 856.2250
285	BMR-10	LDF-5-50A	RX with TTA	45MHz below above freq set
235'	DB212-2	LDF-5-50A	RX	45.50 45.90
205'	DB589	LDF-5-50A	0.80W	904.0000
205'	DB589	LDF-5-50A	0.80W	912.0000
175'	PL8-65	EW-63	2.5W	6755.000
145'			75W	851.8125

2.1.3 DARBY TX/RX

This site, also known as Cypress Creek Well Field (CCWF) is located approximately in the center of Pasco County. The coordinates of the site are (NAD-83) N28° 18' 46.0", W82° 22' 19.0". The shelter facility at this site is an 11' X 24' prefabricated equipment building, equipped with the HVAC, generator and other support systems typical for a public safety communications facility. This site has very limited available space for any additional equipment. Access to the facility is via a private road and two secured gates. This is an environmentally sensitive location and things like herbicides are strictly controlled.



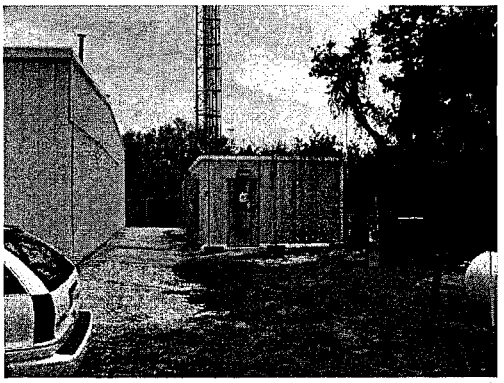
Exterior and Interior Photos of Darby Site

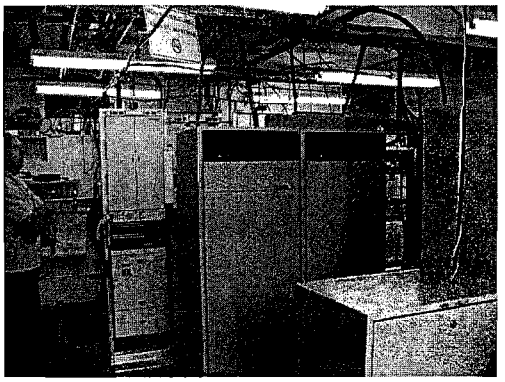
The tower is a 485' guyed Rohn 80 (FCC tower registration number 1065061). This tower currently supports the following antennas and microwave dishes:

Antenna Height (feet)	Antenna Type	Transmission Line	RF Output Power	Transmit Freq
485	BMR-10	LDF-6-50A	400W (combined)	855.8125 856.8375 857.8375 858.8375 859.8375 860.8375 855.2250 856.2250 853.3875 852.2625
485	BMR-12	LDF-5-50A	RX with TTA	45MHz below above freq set
463'	DB212-3	LDF-5-50A	300W	45.66
463	DB212-3	LDF-5-50A	300W	45.62
430'	DB420	LDF-5-50A	100W	453.1500
418'	TEL 220F6	LMR-1200	2W	217.0250
400'	DB264	LDF-5-50A	75W	151.055
400'	DB420	LDF-5-50A	100W	468.175
374'	ASP680	LDF-5-50A	75W	171.6525
305'	PL8-65	EW-63	2.5W	6595.000
275'	CTA206	LMR-1200	2W	216.125
145'	PL6-65	EW-63	2.5W	6675.000
100'	PLC4510	LMR-400	2W	453.2395

2.1.4 NEW PORT RICHEY TX/RX

This site is located in the rear of the Pasco County Government Center at 8919 Government Drive, New Port Richey. The coordinates of the site are (NAD-83) N28° 16' 5.0", W82° 40' 5.0". The shelter facility at this site is a 14' X 19' prefabricated concrete equipment building, equipped with the HVAC, generator and other support systems typical for a public safety communications facility. This site has very limited available space for any additional equipment. There are no known access issues associated with this site.





Exterior and Interior Photos of New Port Richey Site

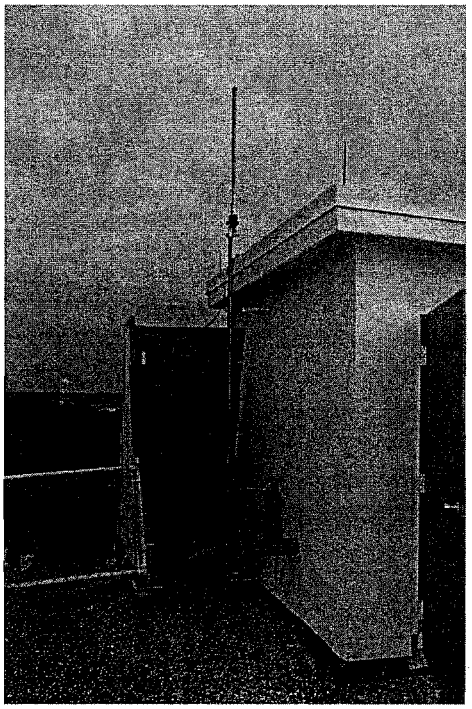
The tower is a 285' guyed Rohn 80 (FCC tower registration number 1065060). This tower currently supports the following antennas and microwave dishes:

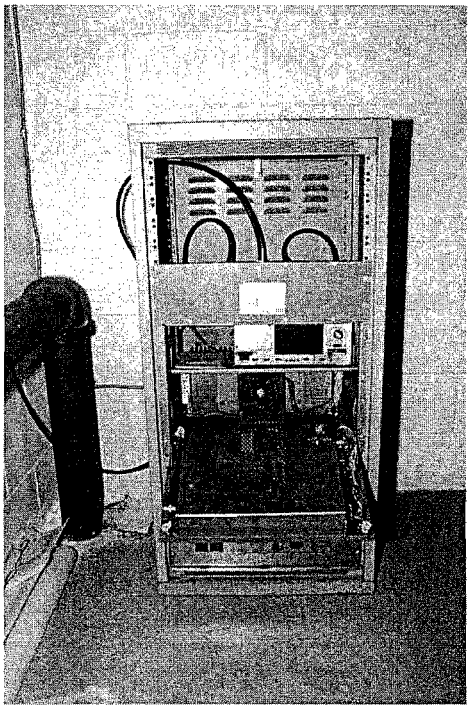
Antenna Height (feet)	Antenna Type	Transmission Line	RF Output Power	Transmit Freq
485	BMR-10	LDF-6-50A	400W (combined)	855.8125 856.8375 857.8375 858.8375 859.8375 860.8375 855.2250 856.2250
285	BMR-10	LDF-5-50A	RX with TTA	45MHz below above freq set
270'	CTA209	LMR-1200	2W	216.1250
250'	DB212-2	LDF-5-50A	100W	39.10 39.18
250'	DB212-2	LDF-5-50A	RX	45.50 45.90
225'	DB589	LDF-5-50A	0.80W	904.0000
225'	DB589	LDF-5-50A	0.80W	912.0000
190'	AP18-1900/090D 0 deg AZM	LDF-7-50A	16W	1946.2500 1947.5000 1948.7500
190'	AP18-1900/090D 120 deg AZM	LDF-7-50A	16W	1946.2500 1947.5000 1948.7500
190'	AP18-	LDF-7-50A	16W	1946.2500

Antenna Height (feet)	Antenna Type	Transmission Line	RF Output Power	Transmit Freq
	1900/090D 270 deg AZM			1947.5000 1948.7500
145'	DB264	LDF-5-50A	50W	145.35
135'	PL8-65	EW-63	2.5W	6645.000
65'	DB438	LMR-400	20W	439.4000
40'	PLC4510	LMR-400	2W	453.43755

2.2 CITY OF DADE CITY CONVENTIONAL CHANNEL

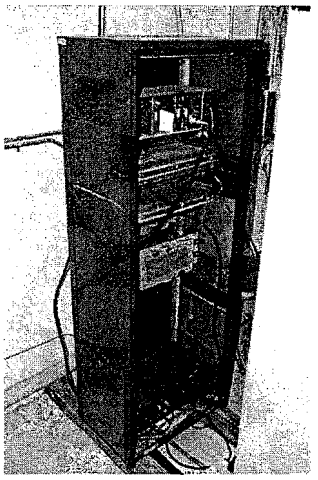
This is a single channel MASTR II conventional repeater installed in the upper stairwell of the Edwinola Retirement Community building at 14235 Edwinola Way, Dade City. The antenna is wall mounted on the roof near the base station. It serves as both the transmit and receive antenna via a duplexer mounted internally to the station's cabinet. Access to this site must be coordinated with Retirement Community personnel.





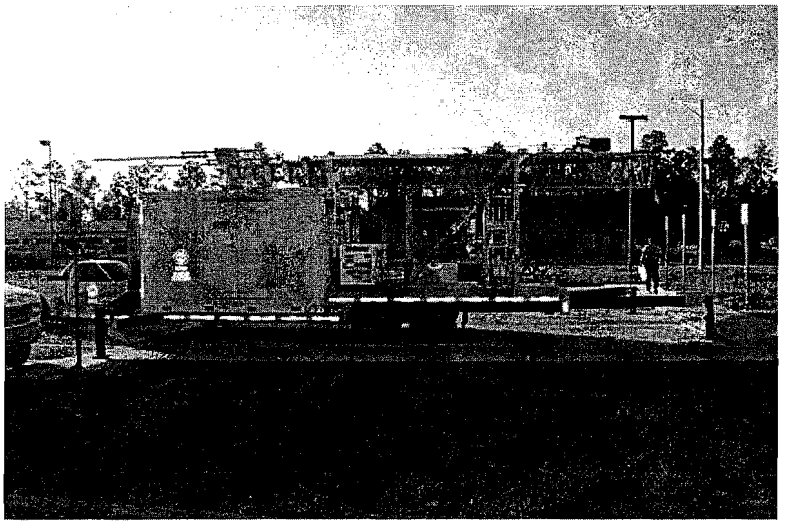
2.3 PASCO COUNTY CONVENTIONAL CHANNEL

This is a single channel Johnson conventional repeater installed at the Dade City simulcast TX/RX site. This channel is used primarily for administrative purposes by Pasco County personnel. It currently operates on 806/851.8125 MHz and utilizes its own antenna mounted on the tower at the 145 foot level.



2.4 TRANSPORTABLE EMERGENCY SYSTEM

This transportable system is normally stored in New Port Richey. It consists of a trailer equipped with four M/A-COM MASTR-III conventional repeaters, a 100 foot crank-up tower, and generator. One of these stations is currently tuned to the State-wide 800MHz Mutual Aid channel (808/853.3875MHz). The other three stations are tuned to NPSPAC Mutual Aid channels TAC2, TAC3, and TAC4 (822/867.0125MHz, 822/867.5125MHz, and 823/868.0125MHz, respectively).



3 USER CHARACTERISTICS

3.1 USER EXPECTATIONS

Public Safety users have stringent expectations for system reliability, radio coverage and audio quality. Interruptions in radio service availability and access are, in most cases, unacceptable. Portable unit coverage is desired and necessary throughout the user-agency's geographic service area, both on-street and within buildings and automobiles. Delivered audio must be of the highest order of clarity with little background noise or radio static.

These requirements greatly exceed the needs of, for example, a commercial, radio-dispatched delivery service, but are essential to the mission of Public Safety departments. Unfortunately, increased performance leads to more complex and costly radio communication infrastructures.

Coverage reliability is enhanced through proper consideration of environmental losses, building losses and other user configuration factors. For example, at 800MHz, it has been found that in-vehicle propagation losses may be 6 to 10 times higher than those encountered on-street. Portable radios operated at hip-level (by speaker/microphones) are subjected to additional body losses which may be 8 to 10 times higher when compared to utilizing the same radio at head level. Building propagation losses vary widely due to location (densely-packed structures are affected by shading losses) and construction materials, further aggravating portable radio operations.

How users intend to operate radio communications systems and equipment has a profound impact on infrastructure design configurations. Generally speaking, Public Safety systems are optimized for that user group having the most stringent operational requirements, which automatically provides an enhanced performance margin to those groups having lesser needs.

The following discussion illustrates our understanding of the operational characteristics and network reliability needs of Pasco County's Public Safety and Public Service radio users.

3.2 SHERIFF'S OFFICE AND POLICE DEPARTMENT USER CHARACTERISTICS

The dispatch and coordination of Sheriff Department resources is principally through the County Consolidated Communications Center. The cities of Dade City, Port Richey, and New Port Richey police departments provide police services within their respective jurisdictions. Officers are directed to specific incidents/locations in response to citizen calls placed via the County's 911 Emergency Telephone Network. The Sheriff's Department, with over a thousand radios (approximately half the total radio population), is the largest agency utilizing the 800MHz EDACS simulcast system. The other police agencies utilizing this system have approximately 150 radios combined.

Although reactive service responses account for most of the Police/Sheriff radio traffic, investigative functions and pro-active community policing (which are not normally incident related) produce significant radio traffic. In most instances, incident

locations are on-street and, to a lesser extent, within residential housing and/or business structures.

Officers operate portable radios in one of two ways, either on-hip for both transmit and receive utilizing a shoulder located speaker/microphone, or on-hip to receive and head-level to transmit. Although most Sheriff's Department vehicles are equipped with mobile radio equipment, communications in-route to an incident may utilize either portable or vehicular-mounted mobile equipment.

The Pasco County simulcast trunked radio system processes close to a million transmissions each month. Many of these calls are sheriff or police related calls for service and failure to process any of these calls can have life-threatening consequences. **Every effort must be made, throughout the rebanding project, to sustain operations and network availability in a manner that is transparent to public safety operations**.

3.3 FIRE-RESCUE USER CHARACTERISTICS

Fire-Rescue operations are dependent on the team concept that simply means one firefighter has to have the ability to communicate with other firefighters so the team will know what has been done, what needs to be done, and what may need to be done in the future.

Effective radio communication must support:

- Fire-Rescue having the capacity to properly dispatch the correct number of fire apparatus, equipment and firefighters to cope with multiple Countywide emergencies.
- Communication Center personnel ability to monitor fire companies responding to dispatched calls for service
- A safe, effective and reliable flow of communications between the Communication Center and firefighters operating at the scene of any Countywide emergency.
- Safe, effective and reliable communications between fire crews/sector officers, operating at the scene, and the Incident Commander.
- The ability of Incident Commanders to be in contact with their fire crews/sector officers assigned to each side of any incident area in addition to the fire crews/sector officers operating within the interior of a structure.
- The Communication Center's ability to call additional agencies for assistance.
- Utilization of the Incident Command System to manage events.

Radio traffic volume increases dramatically during firefighting operations as firefighters relay vital information that concerns civilian and firefighter safety, fire control and property conservation. The radio traffic can be technically complex and involve emergency notifications that impact fireman safety. This requires a high degree of transmission clarity and reliability.

Whereas many police incidents occur on-street, most firefighting operations require extensive communications within buildings on multiple floors. Besides single family residences, multi-family dwellings and apartments, firefighters may have to utilize

portable radios within high rise buildings, warehouse occupancies and underground facilities that cover millions of square feet.

Firefighters require reliable communications while performing search and rescue or advancing hose lines while they are crawling on the floor. Orientation of the radio's antenna horizontally, rather than the normal vertical position creates additional signal loss. Antenna cross-polarization could introduce 10db or more additional loss as compared to a user operating his portable, vertically, in the same location. Firefighters carry their radios in heavy fire coats at chest level as part of their personal protective ensemble that includes self contained breathing apparatus. (Radios operated at hip level experience body losses which may be 8 to 10 times higher than utilizing the same radio at head level.)

Radios are used during peak periods of extreme exertion and highly stressful situations so reliability and efficiency are critical components of a dependable communication system.

County Fire-Rescue utilizes approximately 300 portable and mobile units. Port Richey, New Port Richey, and Zehpyrhills Fire-Rescue add approximately 175 more. During periods of non-emergency operations, radio traffic is relatively low and principally involves battalion management, training, public education, customer service, pre-planning buildings, fire prevention inspections and fire apparatus maintenance.

It is the opinion of TCS that Fire-Rescue operations place stringent operational requirements on Pasco County's 800MHz radio communications network and the performance of its various sub-systems. **Accordingly, throughout the rebanding process, the 800MHz network must remain continuously in a condition whereby it is capable of supporting Fire-Rescue operations and its stringent requirements at a moment's notice.**

3.4 PUBLIC SERVICE USER CHARACTERISTICS

There are approximately 500 Public Service users operating on the Pasco County 800 MHz trunked radio system. These users include Public Works, Public Transportation, Emergency Management, the Utilities Department, Animal Control, Fleet Management, Traffic, Communications, and other vital services. While the radio communications requirements are somewhat less demanding than those of Public Safety users, those communications are none the less critical to ensure the efficient delivery of these vital services to the citizens of Pasco County. Public Service users have different operational characteristics than Public Safety users. Like Public Safety, Public Service users require access to the 800MHz simulcast system on a 24/7 basis, however as a general rule, these users are most active and place the greatest demand on the system from 7:00 AM to 5:00 PM weekdays. Additionally Public Service users' traffic patterns vary from Public Safety in that Public Service users generally make fewer calls per hour, however those calls tend to be longer in duration.

4 INSTALLATION REQUIREMENTS AND VENDOR RESPONSIBILITY

4.1 UNINTERRUPTED OPERATION OF CURRENT SYSTEMS

IT IS ESSENTIAL, due to the critical life-safety mission of this public safety radio network, that the existing radio communications systems shall remain, to the maximum extent possible, fully operational during installation of any new components and/or retuning of frequency-sensitive potions of the systems and until the County provides final acceptance. Because existing systems support Public Safety operations, unscheduled interruptions in service due to retuning/rebanding activities are not permissible. If interruptions in service are necessary to complete portions of the retuning/rebanding work, M/A-COM shall provide written notification, detailing the nature and duration of such interruptions, must be provided to the County for review and approval prior to interruption.

4.2 EQUIPMENT INSTALLATION AND INSPECTION

Equipment shall be installed in a neat and professional manner, in accordance with good design and industry practice, by competent technicians and subject to County approval. It is expected that published M/A-COM installation practices will serve as the minimum standard. Inspection and approval of selected equipment and installations will be provided by personnel designated by Pasco County. Such inspections shall be limited in scope, and shall not be construed to imply full acceptance of the system, or subsystem. The County shall provide a final approval when all conditions are met.

Adjustments or alignment of any transmitter or receiver shall be performed by technicians holding certifications required either by the FCC, or the equipment manufacturer.

Subcontractors performing installation of any equipment or subsystems shall be identified by M/A-COM. All installation subcontractors' experience and qualifications to perform the tasks associated with this procurement shall be outlined in your proposal. No subcontractors may perform any work under this Contract without the prior written approve of the County.

4.3 INSTALLATION DOCUMENTATION

Thorough "as-built" documentation of the retuned/rebanded systems, subsystems, and installation details at fixed sites shall be provided by M/A-COM. The method of providing such documentation shall be described by M/A-COM in its proposal response. At a minimum, the following "as built" documentation shall be provided:

- System block diagrams
- New channelization plans
- Functional and Technical parameter test results
- Radio propagation coverage maps

Documentation and labeling of transmission line routing and antenna mounting at all fixed sites (if such antenna systems are proposed to facilitate re-banding)

Documentation shall be prepared as documentation revision updates to that documentation previously submitted by General Electric (now M/A-COM) as part of their original implementation documentation. Five complete sets of this documentation shall be furnished to the County prior to final acceptance of the project.

The County reserves the right to approve the documentation prior to final acceptance.

4.4 PERMITS AND LICENSES

Responsibility for obtaining licensure and regulatory approvals for the system will be divided between Pasco County and MA-COM in accordance with the following terms:

4.4.1 F.C.C. LICENSE APPLICATION – 800 MHZ FREQUENCIES

M/A-COM shall prepare any F.C.C. license application forms, as required, for submission to the Commission. These prepared forms will subsequently be filed by Pasco County Communications.

4.4.2 BUILDING PERMITS

All necessary Contractor's licenses and permits required by local, state and federal authorities shall be secured by M/A-COM.

M/A-COM shall be responsible for assuring that all work performed under its supervision, or work subcontracted out, in conjunction with this procurement, is in compliance with all applicable safety, building, FAA/FCC and electrical codes.

4.5 EXTENSION OF PROJECT SCHEDULE

Installation and satisfactory operation of the system must be completed within the time period guaranteed by M/A-COM in the project schedule submitted with the proposal and incorporated into the final Contract. Extension of time for completion is undesired and unlikely, especially if such extension would cause loss of funds appropriated to pay for this project or may be in violation of FCC Orders.

Project extensions may be granted, at the discretion of the County, if delays are experienced as the result of:

- Actions taken by the County, or its agents
- Changes ordered by the County
- Difficulties experienced in obtaining F.C.C., F.A.A., or zoning approval of proposed facilities
- Road repairs, mishaps, strikes, Acts of War, Acts of God, riots, lockouts or inclement weather which would delay equipment or limit access to any site at which work will be required

Requirements for time extension(s) shall be submitted to the County, in writing, by M/A-COM. The request shall describe the type of delay, the cause and its apparent impact on contract delivery/completion schedules. M/A-COM shall make such requests on the Friday of each week that potentially excusable delays occur.

4.6 ACCEPTANCE TESTING AND PROOF OF PERFORMANCE (ATP)

Acceptance testing will be performed prior to final system acceptance by the County, and successful passage of the tests will be a condition of final acceptance. All test equipment required for the ATP shall be provided by M/A-COM.

Please submit, with the Proposal Response, an acceptance test plan documenting the procedures to be followed and the equipment to be used to verify system performance. The Plan shall consider, at a minimum, the following functions:

4.6.1 TRUNKED SYSTEM FEATURES

- Analog/Digital functionality
- Talk group selection (mobile, portable and control)
- Trunked signaling channel failure
- Emergency access to voice channel
- Failure modes of operation

4.6.2 REPEATER STATION FUNCTIONS

- Transmit frequency and deviation
- Output and reflected power
- Receiver sensitivity
- Receiver multicoupler gain
- Receiver preamplifier gain
- Time domain reflectometry of transmission line, if necessary
- Conducted spurious and harmonic emissions
- Transmit combiner loss
- Simulcast optimization-radio frequency, amplitude and phase of modulating signal
- Proper setting of audio phase delays
- Receiver audio output levels
- Voting system function and level adjustment

4.6.3 COVERAGE TESTING

Pre-reconfiguration baseline and post-reconfiguration performance testing for both signal level and Voice Audio Quality will be required. Detailed requirements of this testing is further defined in Section 7 of the Rebanding Issues Document.

For signal level testing, the test routes and locations, as identical as possible to those in the County's original-system coverage acceptance test, must be replicated.

A method of documenting the test results is required.

The proposed Acceptance Test Plan will be reviewed by the County and any mutually agreed upon deficiencies noted in the Plan will be corrected by M/A-COM within thirty (30) days of the plan's date of receipt.

4.7 SITE PREPARATION, CONSTRUCTION, AND ALTERATION PLANS

Preparation of sites and equipment rooms, as may be needed to support equipment replaced as a result of this FCC-Ordered re-banding activity, will be included as part of the proposal. Preparation includes, but is not limited to, clearing, grading, construction, electrical work, permits, and insurance as required.

4.8 MAINTENANCE AND OPERATION MANUALS

Five complete sets of maintenance manuals shall be provided by M/A-COM for each category of new equipment installed in association with this project.

4.9 WARRANTIES

All equipment furnished shall be fully warranted for a minimum period of twelve months from the date of system acceptance. Such warranty shall cover parts and labor. M/A-COM shall provide a copy of provisions and terms of the proposed warranty in compliance with applicable state and local codes. A description of available warranty options and proposed term shall be included in the Proposal Response.

4.10 SITE VISITS

M/A-COM will be allowed to visit all sites at which fixed equipment is to be installed to gather additional information with regard to conditions to be encountered in installing equipment. To schedule a visit, please contact Peter Allan at (813) 920-3933 or Joe Sekula at (813) 235-6075.

4.11 PERFORMANCE BOND

M/A-COM shall furnish to Pasco County Payment and Performance Bonds in the full amount of the Contract to guarantee faithful performance of the Contract within ten days of approval of the Contract by the County. Bonds shall be executed by M/A-COM as principal and having as solely thereon, a surety company duly authorized and admitted to do business in the State of Florida and licensed by the State of Florida to issue such bonds.

5 MINIMUM EQUIPMENT REQUIREMENTS

It is anticipated a significant portion of the existing user equipment operating on the Pasco simulcast radio system is capable of being retuned/re-banded. However, it is likely that some versions of user equipment may not comply with FCC's new minimum requirements for receiver intermodulation-distortion susceptibility on re-banded channels. Further, some portions of infrastructure equipment may not be supported by its original manufacturer, within the context of re-banding/retuning. In those instances, replacement of existing equipment may be the only viable option to complete the necessary retuning/re-banding in a manner that provides the same measure of reliability and user performance as that enjoyed by the existing configuration.

6 DESIRED SYSTEM MIGRATION

6.1 OVERVIEW

Pasco County operates a M/A-COM EDACS 800MHz trunked system comprised of a three site, 8-channel simulcast. In addition, the County operates two 800MHz conventional channels, and Dade City Police Department operates a single 800MHz conventional channel. One of the eight channels in the simulcast system (Channel 6) and all three conventional channels must be reconfigured to new operating frequencies.

Reconfiguration of the system will require four related work efforts.

1. Retune/Replacement of the EDACS simulcast system
2. Retune of the conventional and Mutual Aid channels
3. Retune of User Equipment
4. System testing.

System testing requirements are defined in Section 5 of this Rebanding Issues Document. Presented below for M/A-COM's consideration are potential migration procedures for the other required work efforts. The intent is perform the required reconfiguration in the most efficient and cost effective manner, while ensuring the system continues to provide, without interruption, the existing communication capability that is so vital to Pasco County's public safety and public service users. To this end, M/A-COM is permitted to develop and propose, for the County's consideration, alternative implementation and system migration procedures that it deems better meet the requirements of Pasco County as defined in this Rebanding Issues Document.

6.2 RETUNE OF EDACS SIMULCAST SYSTEM

The existing EDACS Simulcast system consists of three, 8-channel transmit/receive sites. 800MHz Rebanding reconfiguration requires that this system's Channel 6, 815/860.8375MHz, be changed to 813/858.3875MHz. This trunked system performs a critical, life-safety role in Pasco and processes a large number of call transactions each month. There is no backup system available that can adequately support critical county operations; therefore the system's availability must be preserved throughout the entire re-banding project.

This system was installed in the early 1980's and is one of the very first 800MHz EDACS simulcast systems installed by the General Electric Co. (now M/A-COM). It is based upon GE MASTR II base stations, ElectroCom simulcast control and equalization equipment, and NEC multiplex channel banks. All of this equipment has been out of production for some time and the availability of spare parts is extremely limited.

While this system is quite stable and continues to provide critical communication capability for Pasco County, experience has shown that attempting to modify RF base station equipment of this age often induces component or system failures that otherwise would not occur. If the system suffered a failure while attempting reconfiguration, Pasco County has no backup that can support critical life safety operations for an extended period of time. Given the age and lack of support for the

equipment, there is little assurance that system operation could be restored in a timely manner if such a failure were to occur. Such a situation would place County personnel, particularly law enforcement and fire rescue personnel, as well as the citizens they protect, in serious jeopardy. This is, of course, unacceptable.

In response to this Rebanding Issues Document, M/A-COM must devise a reconfiguration procedure that guarantees Pasco County users will retain, throughout the reconfiguration process, the same level of trunked radio communication capability that exists today, even in the event of unforeseen system equipment failures that may occur.

In previous discussions between M/A-COM representatives, County representatives, and the County's consultant, M/A-COM has indicated its unwillingness to accept the risk imposed by attempting to reconfigure this aged system and that the only reasonable approach to reconfiguration is via replacement of the existing, out-of-production MASTR-II station equipment with current production MASTR III simulcast stations. For compatibility reasons, the existing Electrocom simulcast control equipment and NEC multiplex channel banks must be replaced as well. The following suggested migration procedure assumes that this is the approach that will be taken by M/A-COM.

Reliability concerns dictate that the existing simulcast system not be touched until a sufficient number of MASTR-III based simulcast channels to support Pasco County's public safety users are installed, tested, and capable of being rapidly made operational. This will require the parallel implementation of the new MASTR-III simulcast RF subsystem with the existing one. A suggested step-by -step plan is outlined below:

Step 1 The existing microwave circuits be reconfigured to provide one T1 circuit each between the Dade City TX/RX site and Darby, the Dade City TX/RX site and the New Port Richey TX/RX site, and the Dade City TX/RX site and the IMC. The new multiplex equipment will then be installed and tested.

Step 2 Reconfigure the Integrated Multisite Controller (IMC) with the necessary hardware to support the new simulcast equipment as a new site. System software will be reconfigured as necessary to support this new interface.

Step 3 Install the new control point equipment. Given the space constraints and condition at the current control point location, it is suggested that the new control point be installed in the Dade City RF equipment shelter instead of the existing control point location. M/A-COM must determine if sufficient free space exists there to do so without disturbing the existing system. It appears to the County that sufficient space does exist there to do so.

Step 4 Install the new simulcast site common equipment, RF base stations, and new combiner at Dade City, Darby, and New Port Richey. Floor space at both Darby and New Port Richey is extremely tight, however given the compact design of the new RF hardware, it is anticipated that a plan can be developed that will allow for the installation of this new equipment at these sites without requiring additional shelter space. Note that although the existing EDACS equipment can not be moved

during this step, it may be possible that certain other equipment installed at these locations can be temporarily relocated within the shelter, or possibly even outdoors to allow for the installation of the new equipment.

Step 5 The new RF simulcast subsystem components will be interconnected, configured, and tested to the extent possible without actually going on the air.

Step 6 During periods of typically lower user activity, individual channels on the existing system (except Channel 6) will be disabled and removed from system use via the radio system's management terminal, CSD. The corresponding channel on the new RF equipment will be connected to the existing combiner and multicoupler. This channel will then be tested and aligned for proper simulcast operation countywide. During this time proper trunked operation and connectivity to dispatch via the IMC will also be verified. This can be accomplished on a site-by-site basis utilizing specially programmed test portables and the new Channel 6 station operating under reduced power into a local antenna or leaky dummy load as the second channel in a 2-channel trunked site. This process will be repeated for all channels except Channel 6.

Step 7 The new simulcast stations will be cabled to the new RF combiner and tested. Cables will be prepared to allow rapid connection of the new combiner to the existing transmit antenna and connection of the new simulcast station to the existing multicoupler at each site. Note that at Darby, two additional conventional channels, a County owned station on the Statewide 800MHz Mutual Aid channel (currently 808/853.3875), and a station operated by the States Attorney (currently 807/852.2625), share the TX combiner. While M/A-COM has significant flexibility regarding the Mutual Aid channel (as outlined below in Section 6.3.2), the States Attorney's station is being reconfigured by a third party and this step and Step 8 must be coordinated with them.

Step 8 When Step 7 is complete, the system will be transitioned to the new RF hardware. (This will potentially require five crews of at least two-people each. In addition County personnel will be stationed throughout the County to verify proper simulcast operation after system cutover. A reliable means of communication between everyone involved that is independent of the trunked system must be pre-coordinated. The cutover will require that the system be disabled for a period of a few minutes; therefore it must be scheduled during a period of minimum system activity such as midweek between 2AM and 5AM. At the appointed time, the existing system will be disabled, the new combiners and station receivers will be connected to the existing TX antenna and RX multicoupler, necessary configuration changes made to the CSD and IMC, and the new system enabled. At this time the system will be quickly tested to be sure that it is operating properly. If any issues are uncovered during this initial testing, the system will be reverted back to its original configuration and the issues resolved prior to reattempting Step 8.

Step 9 Channel 6 will be partitioned from the other channels and aligned for proper operation. The channel will remain disabled until the completion of the reprogramming of all user equipment, after which it will be returned to the trunked frequency pool. After Channel 6 is properly aligned and during periods of typically low user activity, each of the other channels will be temporarily removed from service and realigned to account for any changes that may have occurred as a result of changing combiners and cabling.

Step 10 For a period to be agreed upon between the County and M/A-COM, the old simulcast RF subsystem will remain energized but disabled (except for the old Channel 6, which will be permanently removed from service) so as to be readily available as a backup in the event of early life failures or system issues that may manifest themselves on the new RF subsystem. Functional and coverage tests of the new system will take place during this period.

Step 11 The old simulcast RF and control point equipment will be decommissioned and removed by M/A-COM to a location to be designated by the County. Any site equipment that may have been temporarily moved to accommodate the new simulcast equipment in Step 4 will be permanently reinstalled.

Step 12 Successful resolution of any punch list items that may exist after Step 11. The Simulcast subsystem implementation and cutover is now complete.

6.3 RETUNE OF CONVENTIONAL AND MUTUAL AID CHANNELS

While important, the conventional and mutual aid channels that require frequency reconfiguration are less critical to Pasco County's operation than the simulcast system. There is therefore somewhat more flexibility regarding the amount of down time that can be suffered by these channels during the re-banding process. Suggested reconfiguration procedures for these channels are described below.

6.3.1 CITY OF DADE CITY CONVENTIONAL CHANNEL

The City of Dade City operates a single channel M/A-COM MASTR II conventional repeater on the roof of the Edwinola Retirement Community, 14235 Edwinola Way, Dade City. This station currently operates on 808/853.0375MHz. The proposed new frequency is 809/854.4875 MHz. This station is located in the top of a stairwell in that building and utilizes a single roof mounted antenna connected via a duplexer to the station's transmitter and receiver.

Because of the relatively low number of users that operate on this channel, and the expected short duration of time required to reprogram this channel's users, it may be possible to reconfigure this station without requiring a means of supporting operation on both the old and new channel throughout the user programming process. If the Dade City user equipment programming can be completed in a matter of a few days, then the base station can be retuned at the time that one half of Dade City's users have been reprogrammed to this channel's new operating frequency.

If, however, the scenario outlined about cannot be accommodated, or if Dade City users will loose access to this channel for more than a few days or any reason, then a means of supporting both the old and new frequency throughout the reprogramming process must be provided, such as via a temporary back-to-back repeater.

6.3.2 PASCO COUNTY 800 MHZ CONVENTIONAL CHANNEL

Pasco County's Dade City conventional repeater station currently operates on 806/851.8125MHz and is installed in the equipment shelter at the Dade City simulcast TX/RX site. This channel is used primarily for administrative purposes by the County. It is an older vintage Johnson repeater station and must be reconfigured to operate on 813/858.8125MHz. Traffic on this station is relatively light and a short period of downtime can be accommodated on this channel as long as this downtime is pre-coordinated with the County.

6.3.3 PASCO COUNTY TRANSPORTABLE SYSTEM

Pasco County operates 4 channel, portable emergency radio system. This portable emergency system is trailer mounted and includes four M/A-COM MASTR III conventional repeater stations, an emergency power generator, and a crank-up 100' tower. One of these stations is currently tuned to the State-wide 800MHz Mutual Aid channel (808/853.3875MHz) and operates under license WQFN291. This channel must be retuned to 809/854.6375MHz. The other three stations are tuned to NPSPAC Mutual Aid channels TAC2, TAC3, and TAC4 (822/867.0125MHz, 822/867.5125MHz, and 823/868.0125MHz, respectively) and operate under license WQEU971. Each of these NPSPAC stations must be retuned 15 MHz lower to 807/852.0125MHz, 807/852.5125MHz and 808/853.0125MHz. The timing of the retuning of the 3 NPSPAC channels must coincide with Wave 3, Phase 2 of the national reconfiguration plan.

6.3.4 STATE MUTUAL AID CHANNEL

The 800MHz Statewide Mutual Aid channel, 808/853,3875MHz is installed and in operation at the Darby TX/RX site. This station must be reconfigured to 809/854.6375MHz. This station is a M/A-COM MASTR II 800MHz conventional repeater that utilizes the simulcast system's antenna system, including transmitter combiner and receiver multicoupler. It is rarely used and the NPSPAC Mutual Aid channels will be available throughout the re-banding process to provide interoperability and mutual aid capability. As such, it will not be necessary to maintain Statewide Mutual Aid capability for all uses throughout the reconfiguration effort and this station can be reconfigured to the new operating frequency at a time that is most convenient and cost effective. It is suggested that the reconfiguration take place within a short time of Step 8 of the simulcast reconfiguration outlined in Section 7.2 so that the transmitter combiner at the Darby location only be replaced one time.

6.4 RETUNING OF USER RADIOS

The Police, Fire and other Governmental agencies operable on the County trunked system utilize approximately 2,000 portable, mobile and control station radios

dispersed throughout Pasco County. Reprogramming all the radios in the system will be costly in terms of manpower and lost resource availability. Consequently, in the response to this Rebanding Issues Document, M/A-COM is to provide a retuning plan that will accomplish the required retuning with a minimum number of "touches" to each unit. The plan should limit, to the extent practical, the time each unit is out of service as well as the travel time associated with transporting each unit to the programming location. In order to ensure that retuning was successful, a functional test must be successfully completed on each retuned radio prior to it being returned to service.

6.4.1 AVAILABLE FACILITIES

Pasco County has only very limited facilities available for use by M/A-COM to support the reprogramming of user equipment. Should M/A-COM wish to use any existing County facilities to support the re-banding effort, M/A-COM must provide the County Representative or Consultant (as defined elsewhere in the Rebanding Issues Document) with a request outlining the requirements for those facilities in terms of space, duration of use, and required resources (power, HVAC, security, etc.). While the County will attempt to make such requested facilities available, if doing so will unduly burden or adversely affect County operations, then the request cannot be honored and it will be M/A-COM's responsibility to devise an alternative plan utilizing other facilities provided by M/A-COM.

6.4.2 IN-PLACE PROGRAMMING

In order to reduce the time that critical fire apparatus is out of service and due to the difficulty of moving heavy equipment around the County, the reprogramming plan must include a method whereby all fire service mobiles, all large construction vehicles, and all vehicles which are not easily transported on the public highways be reprogrammed without requiring that they be moved from the location where each is stationed or stored when out of service.

6.4.3 NPSPAC MUTUAL AID CONSIDERATION

Pasco County maintains three NPSPAC Mutual Aid channels configured as a portable emergency system. In addition, the State of Florida operates a NPSPAC Mutual Aid system that provides coverage within Pasco County and several other neighboring agencies with which Pasco County users regularly interact support these NPSPAC channels. To support emergency operation as well as to provide interoperability with other agencies, all of Pasco County's users currently have NPSPAC Mutual Aid frequencies programmed into their units. During the Phase 2 portion of frequency reconfiguration these existing NPSPAC Mutual Aid channels will be moved to new frequencies that are 15MHz below the existing ones. Therefore, any units currently programmed with NPSPAC Mutual Aid channels must also be reprogrammed to the new, reconfigured, NPSPAC channels. M/A-COM must take this NPSPAC Mutual Aid requirement into account when developing its user equipment retuning plan.

6.4.4 FINAL FREQUENCY CONFIGURATION

The user equipment retuning plan must take into account that at the end of the reconfiguration process, all terminal equipment must be programmed with only the new, reconfigured frequencies. In order to avoid the potential for user error, the possibility of illegal operation on unlicensed frequencies, and to ensure that each radio's available memory capacity is not reduced after reconfiguration, all old frequencies must be cleared from all units at the end of the process. While a requirement for the successful completion of the re-banding effort, this requirement should be considered secondary to the requirement that system availability and operational capability be maintained throughout the process.

7 COVERAGE CRITERIA

7.1 GENERAL

Pasco's 800MHz radio network, while desiring to achieve frequency compliance with the FCC Order, must also maintain original-configuration coverage (in terms of reliability, delivered audio quality and service area). It is the County's requirement that M/A-COM perform benchmark coverage verification prior to commencement of infrastructure retuning efforts. By so doing, a performance standard, using true existing conditions, can be established. In addition, at the completion of the retuning of all involved systems and frequencies, additional coverage verification shall be performed to gauge the effectiveness and suitability of system-specific re-banding actions.

The County will not accept coverage performance less than that of the original system. Any deficiencies, found not to be the result of faulty re-banding workmanship or materials will become the responsibility of Sprint/Nextel for final resolution. M/A-COM, however, will be responsible through the scope and accuracy of testing methodology and test execution to provide test data sufficient to determine key outside factors adversely affecting the performance of the re-banded communication systems, if any such factors exist.

7.2 COVERAGE TESTING

Coverage testing will be required in order to ensure that the reconfigured Pasco County's simulcast system provides facilities equivalent to those that existed prior to the reconfiguration. To accomplish this, both signal level and voice quality tests will be required. In each case a benchmark test will be performed prior to beginning the reconfiguration process and a verification test after. The minimum requirements for each of these tests are described below. Successfully passing both sets of tests is one of the requirements defining the successful completion of the project is a criteria for system acceptance.

7.2.1 SIGNAL LEVEL MEASUREMENTS

On-street coverage shall be measured using automated signal level test equipment. The County will reserve the right to have the equipment supplied by M/A-COM for coverage testing to be certified as accurate by an independent testing laboratory or the equipment manufacturer before and/or after the testing. The test results shall be plotted as a series of drive route maps.

Operationally, the tests shall be conducted in the following manner. The County shall furnish a test vehicle and route drivers for the purpose of coverage verification. The vehicle shall be equipped by M/A-COM with a multi-channel signal logging device, GPS receiver and file management computer. The actual test route driven throughout the service area shall encompass the entirety of Pasco County and will be, to the nearest extent possible, equivalent in scope to the coverage tests performed when the system was originally commissioned. Test locations shall be spaced at 40-wavelength intervals throughout the route. In order to ensure that the testing is statistically valid, it shall include no less than 1000 locations equally distributed throughout the County.

The mean of these measurements shall be calculated, the test locations coordinates determined by GPS satellite positioning and the results written to computer files (one per receiver). Test locations shall be processed, continuously, throughout the drive route. Copies of measurement files from the conclusion of each day of coverage testing shall be provided to both TCS and M/A-COM.

7.2.1.1 BENCHMARK SIGNAL LEVEL TEST

Prior to beginning the simulcast system's frequency reconfiguration, the Contractor shall perform signal level measurements of the existing system, as described above. The data from this test will then be saved for use as one of the benchmarks to determine if the reconfigured system is providing comparable facilities, in terms of coverage, to the pre-reconfigured system.

7.2.1.2 SIGNAL LEVEL VERIFICATION TEST

After the system's frequency reconfiguration is complete, the Contractor shall re-run the signal level tests in a manner identical to the Benchmark Signal Level Test. Data from this test will then be compared to the data from the benchmark test. In order for the test to be deemed passed, no less than 98% of the test locations must exhibit signal levels equal to, or greater than the signal levels recorded for the same location during the benchmark test. If less than 98% of the locations provide equivalent or greater signal level, the test will be deemed failed.

In the event of a failure of the Signal Level Verification Test, the Contractor shall determine the cause of the deficiency and define the responsible party, either M/A-COM or Sprint/Nextel, as described in Section 7.1. The responsible party shall then make corrections to the system to bring its performance back up to the same level as existed prior to the frequency reconfiguration. After these corrections are made, the Signal Level Verification Test will be repeated in its entirety.

This process will be repeated until a passing Signal Level Verification Test is accomplished.

7.2.2 *AUDIO QUALITY TESTING*

Signal strength testing alone is insufficient to determine if comparable facilities exist after a frequency reconfiguration in a simulcast system. In signal overlap areas the signal strength may meet requirements, but coverage may be unacceptable due to variations in received signal timing and phasing. The most efficient way to determine if simulcast operation has not been degraded is via Voice Audio Quality (VAQ) testing.

In order to verify that simulcast performance has not been degraded, two voice audio quality tests will be performed, one prior to the reconfiguration and a second after. The intent is to perform these tests in the most efficient and cost effective manner possible while still meeting the goal of verifying equivalent simulcast performance. It is not the intent to perform VAQ testing throughout the County, but only in overlap regions. As such, the tests will be performed in the following manner.

7.2.2.1 BENCHMARK VAQ TEST

Prior to initiating the test, the Contractor shall generate a coverage map showing the existing system's coverage overlap regions. The Contractor and the County will then agree upon 100 locations, evenly distributed, within those regions. The Contractor and representatives from Pasco County will participate in VAQ testing at each of these locations to determine if the current system provides performance of DAQ 3.4 or better at each location.

The VAQ testing at each location shall be performed using a minimum of ten phonetically balanced phrases, to be supplied by the Contractor. A successful test measurement shall be one which requires no repetition to understand the spoken phrase and with a DAQ of 3.4. The following chart shows Delivered Audio Quality representations as described by EIA/TIA TSB-88B.

DAQ	*DESCRIPTION*
5	Reception is very clear and message is perfectly readable. No background noise is present and every word is understood.
4	Reception is clear, but with slight background noise. Message is readable and every word is understood.
3.4	Reception is clear, but with slight background noise. Message is readable and understood with few/occasional missing syllables.
3	Background noise is evident. Message is readable and understood even with missing syllables.
2	Background noise is prevalent. Message is readable with difficulty and requires repetition.
1	Evidence that transmission being made. Voice message is barely discernible and no words are understood. Unusable.
0	No transmission is heard. No activity on the channel is evident.

Any locations that fail to provided DAQ 3.4 or better will be noted and removed from the list of test locations. The list of passing locations will then become the location list for the performance verification test.

7.2.2.2 VAQ PERFORMANCE VERIFICATION TEST

After the system's frequency reconfiguration is complete, the Contractor and County Representatives will participate in VAQ testing of the system using the list of passing locations as determined during the Initial Benchmark VAQ Test. This performance verification test will be conducted in the same manner as the benchmark test. The test shall be deemed passed if 95% or more of the test locations again provide performance of DAQ 3.4 or better.

If less than 95% of the locations perform at a level of DAQ 3.4 or better, then the test will be deemed failed. In this event, the Contractor shall determine the cause of the deficiency and define the responsible party, either M/A-COM or Sprint/Nextel, as described in Section 7.1. The responsible party shall then make corrections to the system to bring its performance back up to the same level as existed prior to the frequency reconfiguration. After these corrections are made, the VAQ Performance Verification Test will be repeated in its entirety.

This process will be repeated until a passing VAQ Performance Verification Test is accomplished.

8 SITE REQUIREMENTS

8.1 GENERAL

This Section addresses potential radio communication tower and site requirements for Pasco County's 800MHz Network Rebanding. It is the objective of the County to utilize existing towers and equipment shelters, **without** changes to existing configurations if possible. In specific instances where M/A-COM has determined that new/modified shelters or tower structures must be provided, this Section shall define minimum standards for site work and tower structures.

8.2 TOWER DESIGN CONSIDERATIONS

1. The basic standard for the design of the steel antenna tower, wave guide bridge and supporting structures, shall be ANSI/EIA-222-E or latest version.
2. The tower shall be a self-supporting triangular shaped structure having an overall height to be determined by M/A-COM.
3. The tower shall be designed for a minimum sustained 140 mph wind speed.
4. Ice loading shall be not be required.
5. Antenna loads shall be as determined by M/A-COM in accordance with new-equipment operational and functional needs.
6. All fabricated tower assemblies and parts shall be hot-dipped galvanized after fabrication per ASTM Standard A123. Hardware shall be galvanized per ASTM Standard A153 and B695. Other types of zinc coating or plating are not acceptable.
7. The tower shall be supplied with a full-length transmission line ladder designed to accept a minimum of four 7/8", four 1 5/8" and two 1 1/4" transmission lines.
8. The tower shall be equipped with an outside climbing ladder/cable type safety device, in accordance with FAA and OSHA requirements.
9. Antennas and transmission lines shall be provided and installed by M/A-COM.
10. Grounding shall be furnished and installed by the M/A-COM in accordance with the following practices:
    a) Install a ground ring around the base of the tower, consisting of 8'x5/8" ground rods driven adjacent to the foundation of the tower at each leg. Ground rods are to be interconnected by a minimum #00 AWG stranded copper wire which is Cadwelded to each ground rod. Copper wire and ground rods are to be installed in a trench of a minimum depth of 18 inches below finished grade. Maximum spacing between rods shall be 15 feet. Each

tower leg shall be bonded to the ground ring by #00 stranded copper wire which has been Cadwelded to the tower leg and the ground rod, avoiding any acute bends in the wire. All paint shall be removed from the tower leg at the point the ground connection is made. At the completion of the Cadwelding process, the welded area shall be resealed with a cold galvanizing compound and repainted if originally painted.

The ground rod/ring system shall extend to the perimeter of the equipment shelter, transmission line entrance and to the perimeter fence.

b) Bond all transmission line outer shields to the structure at a point one foot above the bend made in the line to attach it to the waveguide bridge.

c) Fencing shall be grounded to the ground ring via #2 AWG solid copper wire, bonded, using Cadweld fittings at each fence post.

d) Antenna mounts shall be grounded to the tower.

e) The building interior halo ground shall be bonded to the outdoor ground system provided by 8.2.10.a.

f) A ground test well shall be provided at a minimum of two points along the ground ring. The test walls shall consist of 4"x2' PVC pipe, with a screw type cap installed. The test well shall allow measurement of ground system resistance at opposite corners of the tower.

g) Grounding system resistance shall be measured to be 3 ohms or less between any point on the ground system and ground.

8.3 REQUIRED TOWER SUBMITTALS

11. Contractor shall furnish wind-load stress and foundation calculations used in the design of the proposed tower structure.

12. Contractor shall furnish documentation approved by a registered professional engineer, licensed in the State of Florida, certifying that the proposed tower and foundation meets the requirements of ANSI/EIA-222-E or latest version.

13. Prior to submission, M/A-COM shall, at its own expense, make such additional investigations on site conditions, as necessary, for the successful completion of their proposal submittal. The County shall permit site inspection access during normal business hours.

14. Proposer shall furnish documentation as to any special condition or restriction applied to the use of materials, products or equipment contained in his proposal.

15. M/A-COM shall furnish written certification that all installed tower components have been assembled and hot-dipped galvanized in accordance with these minimum requirements.

8.4 SITE- WORK REQUIREMENTS

In those instances where new equipment shelters and related faculties are required, the following site work requirements shall apply.

8.4.1 SITE PREPARATION AND SUBGRADING

8.4.1.1 GENERAL

Site clearing, initial earthwork and rough grading and final grading will be the responsibility of M/A-COM.

8.4.1.2 PERFORMANCE

1. Dewatering
   a. Control grading around excavations to prevent surface water from flowing into excavation areas.
   b. Drain or pump as required to continually maintain all excavations, trenches and pier holes free of water from any source, and discharge to approved drains or channels. Commence when water first appears and continue until work is complete to the extent that no damage will result from hydrostatic pressure, flotation, or other causes.
   c. Use pumps of adequate capacity to insure rapid drainage of area, and construct and use drainage channels and subdrains with sumps as required.
   d. Remove unsuitable excessively wet subgrade materials and replace with approved backfill material.
2. Compaction
   a. Compact subgrades, fills, embankments and backfills using spreading equipment, tamping rollers, rubber tired rollers, vibratory compactors, or power tampers, as required to obtain reasonable uniformity.
   b. Perform within moisture content range as specified to obtain required results with equipment used.
   c. Achieve minimum densities specified as references to:
      1. Cohesive soils – 95 percent maximum density at optimum moisture, AASHTO T99
      2. Cohesionless soils – 70 percent of maximum relative density
         a) ASTM, STP 479 Burmister method

b) USBR – E12 relative density

c) Relative density, ASTM D2049

3. Cohesionless soils

a) The County may approve the use of AASHTO T99 for certain cohesionless soils using at least 100 percent of maximum density.

4. Compact control fill and backfill in not over 8 inch layers and compact to between 90 to no more than 96 percent of maximum density at optimum moisture AASHTO T99.

8.4.2 DRILLED PIER FOUNDATIONS

8.4.2.1 GENERAL

1. Extent of Work

a. Perform all drilling and excavation and supply all labor and materials to construct drilled pier foundations, as necessary.

8.4.2.2 PERFORMANCE

1. Quality Assurance

a. Field Inspection by the County– quality control

1. The County's Project Representative will be designated to be responsible for field inspection of the drilled pier foundations. He will transmit, in writing, to the County any materials or methods observed by him which do not conform to this specification and, if required, will not be considered for payment. The County's Project Representative must inspect each drilled pier. Specific responsibilities of the County's Project Representative will be to:

a) Observe excavation of drilled pier foundations.

b) Inspect material and equipment used in construction of drilled piers.

c) Inspect hearing elevation of drilled piers.

d) Observe placement of concrete and rebar within the drilled pier foundation.

2. Contractor Qualifications

a. A minimum of two years experience in drilled pier construction, including experience with similar subsurface

material, water conditions, shaft sizes, and special techniques as required.

3. Drilled Pier Details

   a. Drilled shaft dimensions and top elevations shall be in accordance with foundation design calculations and drawings.

   b. The drilled shaft bearing or bottom elevation shall be at the elevation indicated, unless it is determined by the County's Project Representative that the bearing elevation should be adjusted.

4. Drilled Pier Excavation

   a. Excavate drilled shaft to dimensions and required elevations as indicated. Maintain sidewall stability during drilling and extend excavation to suitable material.

   b. Determine suitability of supporting material for drilled piers as follows:

      1. Inspection of each pier will be by the County's Project Representative and Contractor.

   c. Remove from bottom of drilled piers, loose material or free water in quantities sufficient to cause settlement or affect concrete strength as determined by the County's Project Representative.

   d. Install temporary casing, where required, to prevent caving of drilled pier sides or excessive seepage.

   e. Dewater all drilled pier excavations prior to cleaning, inspection, and placing concrete.

   f. Each drilled pier must be inspected and approved by the County's Project Representative before any concrete can be placed.

5. Excavated Material

   a. Dispose of any excavated material at locations approved for that purpose.

6. Reinforcing Steel

   a. Place reinforcement for drilled piers in accordance with foundation design documents.

   b. Place bars as shown on foundation drawings with concrete cover of not less than 3 inches where exposed to soil.

   c. A reinforcing cage shall be designed as a structural element and braced to retain its configuration throughout the placing of concrete and the extraction of the casing (if used) from the shaft.

7. Concreting

a. Dewater drilled piers and maintain the excavation free of water prior to placing concrete.

b. Place concrete immediately after final inspection.

c. Place concrete immediately after completion of excavation and after the County's Project Representative has completed his inspection. Do not leave uncased excavations open over night.

d. Free fall concrete (not over 6') may be used provided it is directed through a hopper, or equivalent, such that fall is vertical down center of shaft without hitting sides. Vibrate concrete, but only after casing, if used, has been pulled.

e. Place concrete in pier in one continuous operation from bottom to top.

f. The County's Project Representative will provide inspection during the removal of casing and placing of concrete. Withdraw casing, if used, only as shaft is filled with concrete. Maintain adequate head of concrete to balance outside soil and water pressure above the bottom of the casing at all times during withdrawal. Specific procedures that the Contractor will follow to accomplish this objective shall be submitted for approval.

g. Where casing is removed, provide specifically designed concrete with a minimum slump of 5 inches and with a retarder to prevent arching of concrete (during casing pulling) or setting concrete until after casing is pulled. Check concrete level prior to, during, and after pulling casing. Pull casing before slump decreases below 5 inches as determined by testing.

h. During casing extraction, upward movement of the reinforcing steel shall not be permitted. Downward movement should not exceed 2 inches per shaft length.

i. Remove all water and concrete contarninated with soil, or water, before resuming concrete placement.

j. Center reinforcing cages in the drilled pier excavation and suspend them in an approved manner prior to placement of concrete to the cutoff elevation.

k. Leave forms on pier for a period of 3 days.

l. Set anchor bolts to the required tolerances using substantial templates or other approved method.

8.4.3 CONCRETE, FORMS AND REINFORCEMENT

8.4.3.1 GENERAL

1. This Specification includes concrete, forms, and steel reinforcement as used for:
   a. Drilled pier foundations with square caps for steel structures.
   b. Concrete pads for transformers and breakers.
   c. Equipment shelter and tower foundations.
   d. Cable trench.
2. Quality Assurance
   a. Applicable Standards
      1) American Concrete Institute (ACI)
         a) ACI 304 – Recommend Practice for Measuring, Mixing, and Placing Concrete.
         b) ACI 305 – Committee Report on Hot-Weather Concreting
         c) ACI 306 – Committee Report on Cold-Weather Concreting
         d) ACI 315 – Manual of Standard Practice for Detailing Reinforced Concrete Structures
         e) ACI 318 – Building Code Requirements for Reinforced Concrete
      2) American National Standards Institute (ANSI)
         a) B18.2.1 – Square and Hex Bolts and Screws, Including Askew Head Bolts, Hex Screws, and Lag Screws
         b) B18.2.2 – Square and Hex nuts
      3) American Society for Testing and Materials (ASTM)
         a) A36 – Structural Steel
         b) A82 – Cold-Drawn Wire
         c) A185 – Welded Steel Wire Fabric for Concrete Reinforcement
         d) A307 – Low-Carbon Steel Externally and Internally Threaded Standard Fasteners
         e) A615 – Deformed Billet Steel Bars for Concrete Reinforcement
         f) C31 – Making and Curing Concrete Compression and Flexure Test Specimens in the Field

g) C33 – Concrete Aggregates

h) C39 – Compressive Strength of Cylindrical Concrete Specimens

i) C94 – Ready0Mixed Concrete

j) C143 – Slump of Portland Cement Concrete

k) C150 – Portland Cement

l) C309 – Liquid Membrane-Forming Compounds for Curing Concrete

m) C494 – Chemical Admixtures for Concrete

4) Midwest Concrete Industry Board (MCIB)

8.4.3.2 EQUIPMENT AND MATERIALS

1. Concrete Materials

a. Cement

1) Conform to ASTM C150. Portland cement Type I.

b. Water

1) Clean and free from injurious amounts of oil, acids, alkalines, or other deleterious substances. Any potable drinking water will be acceptable.

c. Fine Aggregates

1) Clean natural sand. Manufactured sand may be used upon written approval of the County. Conform to ASTM C33.

d. Coarse Aggregates

1) Clean crushed stone or processed gravel, not containing organic materials. Conform to ASTM C33.

e. Air Entertainment

1) 4-6 percent air shall be used in all concrete.

f. Water Reducing Admixture

1) Conform to ASTM C494, Type A

2. Concrete Mix

a. Ready-mixed Concrete

1) Concrete shall meet requirements of ASTM C94, and of materials and proportions specified.

2) Ready-mixed concrete plant shall be subject to approval of Project Representative.

3. Forms

a. Form materials; use one of the following:

1) Exterior grade plywood 5/8 inch thick

2) Approved wood fiberboard

3) Dressed lumber free of loose knots

4) Approved preformed economy forms

b. Form Ties

1) Approved break-back type

4. Steel Reinforcement

a. Reinforcement Bars

1) Conform toe ASTM A615, Grade 60 for all bars No. 4 or larger

b. Tie and All No. 3 Bars

1) Conform to ASTM A615, Grade 40

c. Welded Wire Fabric

1) Conform to ASTM A185, using bright basic wire conforming to ASTM A82. Wire gauge No. 11 or smaller shall be galvanized.

5. Grout

Use unshrink easy flow type grout as approved by the County's Project Representative.

6. Anchor Bolts

a. Provide all anchor bolts required for complete installation.

b. Anchor bolts and accessories shall conform to ASTM A307 using A36 steel.

c. Use hexagonal bolts and nuts conforming to ANSI B18.2.1 and B18.2.2.

d. All exposed are of anchor bolts and nuts plus 3 inches of embedded area shall be hot-dipped galvanized.

e. Install as indicated on foundation drawings.

8.4.3.3 EQUIPMENT AND MAT

1. Field Testing

a. Field testing of concrete and making of concrete test cylinders will be performed by an independent testing laboratory.

b. Laboratory Testing

1) Laboratory for testing shall be selected and paid by the County.

2) Laboratory will furnish cylinder molds with cap seals or adequate means of identification.

3) Cylinders shall be tested conforming to ASTM C39. Average strength of 2 cylinders (at 28 days) shall be used as result of the test. Break 1 cylinder at 7 days, 1 at 14 days, and 2 at 28 days.

2. Low Strength Concrete

a. Defined as concrete whose 7 day and 14 day test (average of 2 cylinders) is less than 70 percent and 85 percent, respectively, of the specified minimum 28-day compressive strength.

If concrete does not meet the 4000 lb. Test in 28 days, the Contractor shall pay for the cost of the core test.

b. Disposition of Concrete

1) Concrete shall remain accessible with no other work performed that relates to or depends upon the questionable concrete until a final decision as to the disposition of the concrete is given by the County.

2) Low strength concrete shall be removed and replaced if so requested by the County.

3. Placing of Concrete

a. Preparation

1) Clean bonding surfaces free from laitance and foreign materials.

2) Place concrete on properly prepared and unfrozen subgrade and only in dewatered excavations.

3) Do not deposit partially hardened concrete or concrete contaminated by foreign materials.

b. Placing Concrete

1) Conform to ACI 304

2) Place within 60 minutes after mixing, except the County may extend the period to 90 minutes (maximum) dependent upon weather conditions.

3) Place in horizontal layers not exceeding 18 inches.

4) Vibrate concrete to produce solid mass without honeycomb or surface air bubbles.

c. Curing Concrete

1) Cure with liquid membrane-forming compound conforming to ASTM C309, Type I. Apply according to manufacturer's recommendations.

2) Apply curing compound to all exposed surfaces immediately after removing form or after finishing concrete.

3) Keep formwork wet until stripped.

d. Cold Weather Placing

1) Conform to the practice recommended in ACI 306 when the temperature is below 40 degrees F or is likely to fall below 40 degrees F during 24-hour period after placing.

2) Protect pier caps and other concrete from freezing by the use of insulating blankets.

e. Hot Weather Placing

1) Conform to practices recommended in ACI 305 when temperature is 90 degrees F or above or is likely to rise above 90 degrees F within 24 hour period after placing.

4 Construction Joints

a. Locate where indicated. Conform to AC 318.

b. Clean and break laitance or other foreign material from bonding surface. Bed with 1 inch of grout for bonding in horizontal joints.

5. Surface Finish

a. Float Finish

1) Compact, accurately screed, and wood float all slabs to a true uniform surface.

2) Test surface with straightedge and eliminate high and low spots of more than 1/8 inch in 10 feet.

3) Use this finish in addition to the finishes specified below for all surfaces as indicated.

4) Use a final finish for footing slabs not exposed.

b. Hard-troweled Finish

1) Finish surface as in Float Finish and in addition, trowel and steel trowel to obtain a smooth dense finish after concrete has hardened to ring under the trowel.

2) Use this finish on all floors, slabs, and equipment bases not specifically designated for a different finish.

c. Broom Finish

1) Finish surface as in Float Finish and, in addition, draw a stiff bristled broom across the previously floated surface.

2) Corrugations shall be uniform in appearance, not more than 1/16 inch in depth and shall be perpendicular to direction of traffic.

3) Use this finish on all outdoor slabs subject to vehicular or pedestrian traffic and areas to receive grout.

d. Burlap Finish

1) Apply burlap surface treatment to exposed edges of slabs, curbs, and foundations.

2) Wet and fill all voids using mortar with the same sand-cement ratio as original concrete. Use approximately 20 percent white cement to match concrete color.

3) Strike off all excess mortar flush with the surface using a burlap or canvas cloth with a circular motion.

4) Remove all rough spots and rub with cloth to leave a surface of uniform texture and appearance.

5) Finish shall result in a coating of mortar that will fill all small voids and air holes leaving a smooth surface.

6) Cure as specified under Curing Concrete.

6. Defective Surface Treatments

a. After removal of forms, remove all fins, projections and form ties.

b. Grout and cure all voids, damaged areas, and tie holes.

7. Forms

a. Treat forms with an approved oil or lacquer prior to placing reinforcement.

b. Wet forms with clean, clear water prior to placing concrete.

c. Adequately brace and stiffen forms to prevent deflection and settlement.

8. Steel Reinforcement

a. Place accurately, tie at intersection, and support on chairs. Conform to ACI 318.

b. Tie securely with 16-gauge or larger annealed iron wire.

c. Splice steel not less than 30 bar diameters for A615, Grade 40, and 42 bar diameters for A615, Grade 60, unless otherwise indicated.

d. Splice plain bars not less than twice that for deformed bars.

e. Lap welded wire fabric not less than the length of one mesh.

f. No.3 bars to be Grade 40, with all others to be Grade 60.

g. Provide ¾ inch chamfer for all exposed edges of concrete, vertical and horizontal.

8.4.4 FENCES AND GATES (CHAIN-LINK SECURITY TYPE)

8.4.4.1 GENERAL

1. Description

a. This section covers chain-link fabric fence and gates.

2. Quality Assurance

a. Applicable Standards

1) Federal Specifications (FS)

a) FF-BO-575 – Bolts, hexagon and square

b) RR-F-191 – Fencing, wire and post, metal and gates, chain-link fence fabric, chain-link and accessories

c) RR-F-221 – Fencing, wire, barbed wire, woven-wire and netting, fence post and accessories.

8.4.4.2 REQUIREMENTS

a. Manufacturer's standard materials where such materials conform to these Specifications or have been approved by Engineer.

b. Conform to FS RR-F-191 except as indicated or specified otherwise.

c. Fence height – 8-feet high galvanized chain link with 4-strand barbed wire at top (9 ½ feet overall height).

d. Gate widths as indicated on layout drawings.

e. Finish for framework and appurtenances (excluding fabric) – Galvanized with minimum weight for zinc per square foot as follows:

1) Pipe – 1.8 ounces

2) Hardware and accessories – conform to FS RR-F-191.

3) Barbed wire – 0.80 ounce

f. Finish for fabric

1) Galvanized per ASTM A392, Class 2 with 1.8 ounces, minimum weight, for zinc per square foot or

2) Aluminum coated per ASTM A491, Class 2 with 0.40 ounce, minimum weight for aluminum per square foot

g. All fence and gates to have 4-strand barbed wire at top

h. All materials furnished shall comply with the above requirements.

8.4.4.3 FABRIC

a. No.9 gauge, 2-inch diamond mesh chain-link fabric

b. Top and bottom selvage twisted and barbed

c. Fabric fastenings of 9-gauge galvanized wire ties

8.4.4.4 POSTS, TOP RAIL AND BRACES

a. Posts

1) End, angle, corner or pull posts – 3 inches od at 5.79 pounds per square foot

2) Line posts – 2.5 inches od at 3.65 pounds per foot

3) Gate posts – 4.0 inches od at 9.10 pounds per foot

b. Top rail

1) 1.625 inch o.d. standard weight steel pipe

2) 18 foot minimum length of each section

3) Expansion type coupling for each joint

c. Post bracing

1) Diagonal truss rods 3/8 inch in diameter equipped with truss tightener

2) Horizontal braces – 1.660 inch od at 2.27 pounds per foot

d. Post tops

1) Designed as a weathertight closure cap for tubular posts

2) Malleable iron or pressed steel

e. Barbed wire supporting arms

1) Single arm at 45 degrees with vertical, sloping to outside of fence

2) Constructed for attaching four rows of barbed wire to each arm and designed as a weathertight closure cap for tubular posts

3) Designed for 200 pound minimum pull down load

4) Attached to steel posts or integral with post top

5) Provided with openings to receive top rail

6) Malleable iron or pressed steel

f. Stretcher bars

1) One piece, full height of fabric

2) 3/6 inch x 3/4 inch, galvanized

3) Bands of galvanized steel or malleable iron

g. Bolts

1) Zinc coated

2) Conform to FS FF-B-575

8.4.4.5 BARBED WIRE

a. Two-strand, 12½ gauge wire with 4-point barbs 5 inches on center

b. Conform to FS RR-F-221, Type I, Style 2

c. Four rows required on all fence and gates

8.4.4.6 GATES

a. Framing

1) Frames of tubular members, 2 inch o.d. at 2.72 pounds per foot

2) Intermediate horizontal and vertical members for proper gate operation and for attachment of fabric, hardware and accessories

3) Frames assembled by welding or watertight galvanized steel rigid fittings

4) Diagonal cross bracing of 3/8 inch diameter adjustable truss rods to provide frame rigidity

5) Gate end members extended 1 foot above top members to receive four rows of barbed wire

b. Hardware

1) Hinges of pressed or forged steel, or malleable iron, non-lift-off type, 1 1.2 pair per leaf

2) Latches and gate stops – double leaf

a) Plunger-bar type latch, full gate height, designed to engage gate stop of flush-plate type with anchors

b) Locking device and padlock eyes an integral part of latch

c) Keeper to automatically engage gate leaf and secure free end of gate in full 90 degrees open position

3) Latches – single leaf

a) Forked type to permit operation from either side of gate

b) Padlock eye as integral part of latch

8.4.4.7 PERFORMANCE

1. Installation

a. Fence

1) Follow general contour of ground and properly align.

2) Posts

a) Set in concrete retaining wall. Trowel finish tops of footings and dome to direct water away from posts.

b) Install plumb and in straight alignment.

c) Space 10 feet center-to-center maximum.

d) Temporarily brace until concrete in bases has set.

3) Post Bracing

a) Install at each end and gate post, and on each side of corner posts.

b) Install after concrete in post bases has set.

c) Install so posts are plumb when diagonal rod is under tension.

4) Top Rails

a) Run continuously through post caps or barbed wire supporting arms.

b) Install expansion coupling at each joint.

5) Tension Wire

a) Weave through the fabric and tie to each post with minimum 6 gauge galvanized wire.

6) Fabric

a) Stretch taut with equal tension on each side of line posts.

b) Fasten to top rail and steel posts with wire ties.

c) Space wire ties at 12 inches oc maximum on posts and at 24 inches oc maximum on top rail.

7) Stretcher Bars

a) Thread through or clamp to fabric 4 inches on center.

b) Secure to posts with metal bands spaced 15 inches on center maximum.

c) Install at each gate, pull and end post, and each side of corner post.

8) Barbed Wire

a) Attach four rows to each barbed wire supporting arm. Pull wire taut and fasten securely to each arm.

b) Install four rows above fabric and on extended gate end members of gates.

b. Gates

1) Install plumb, level, and free swinging through full opening without interference.

2) Install all hardware, including keepers, ground set items and flush plate in concrete to engage gate stop.

3) Furnish and install gate alarms.

4) Adjust and lubricate as necessary for smooth operation.

c) Repairing Damages Coatings

1) Repair any damaged coating in the shop or field by recoating with compatible and similar coating.

2) Apply per manufacturer's recommendations.

d) Danger Signs

Furnish and install signs as approved by the County.

8.4.5 CRUSHED ROCK SURFACE

8.4.5.1 GENERAL

1. Description

a. This section includes crushed rock surface and method of depositing for the placement of permanent crushed rock surfacing in the prime repeater site area.

b. Related work specified elsewhere

1) Site preparation and earthwork – Section 8.1

2) Herbicide application – Section 8.5.6

2. Quality Assurance

a. Applicable Standards

1) American Society for Testing and Materials

a) C117 – Test for Materials Finer than No. 200 Sieve in Mineral Aggregate by Washing

b) C131 – Test for Abrasion of Coarse Aggregates by Use of Los Angeles Machine

c) C136 – Test for Sieve or Screen analysis of Fine and Coarse Aggregates

d) D423 – Test for Liquid Limit of Soils

e) D4242 – Test for Plastic Limit and Plasticity Index of Soils

f) D75 – Sampling Stone, Slag, Gravel, Sand and Stone Block for Use as Highway Materials

2) American Association of State Highway and Transportation Officials (AASHTO)

a) T99 – Test for the Moisture Density Relations of Soils Using a 5.5-Pound Rammer and a 12-Inch Drop

b) Samples and Testing

1) Test to determine conformance with all requirements for material quality and properties specified herein will be performed by an independent laboratory approved by the County and compensated by the Contractor.

2) Obtain representative samples of material in accordance with ASTM D75 for testing. Furnish the County sufficient materials for testing from each sample at the time obtained.

3) Furnish specific schedule for sampling to provide the County the opportunity to observe sampling.

4) Quality control testing will be performed during construction by a testing laboratory retained by the County.

3. Submittals

a) Includes, but not limited to, the follow:

1) Test result reports from testing laboratory indicating conformance with the specifications.

2) Certification of conformance with the specifications

8.4.5.2 EQUIPMENT

1. General

   a. Crushed rock surface shall consist of ¾" aggregate placed on top of a 6 mil polyvinyl.

2. Aggregate

   a. Crushed limestone or crushed natural gravel, free from lumps or balls of clay or other objectionable matter, and reasonably free from thin and elongated pieces of dirt. Aggregates shall consist of angular fragments, durable and sound, and shall be reasonably uniform in density and quality.

8.4.5.3 PERFORMANCE

1. General Requirements

   a. Stockpiles

      1) Only with approval of the County.

      2) Clear and level storage sites prior to stockpiling.

      3) Place in a manner and at locations designated by the County, providing separate stockpiles for materials from separate sources.

   b. Preparation of subgrade

      1) Clean off all foreign substances.

      2) Correct any ruts, depressions, or soft yielding spots and areas with inadequate compaction.

      3) Treat all subgrade with soil sterilant.

      4) The County will inspect, prior to placing crushed rock surface, for adequate compaction and surface tolerances.

   c. Grade control

      1) Establish and maintain by means of grade stakes spaced so string lines may be stretched between stakes.

2. Placing, Shaping and Compaction of Materials

   a. Placing

      1) Deposit and spread material in a uniform layer and compact to the thickness indicated and as specified. Spread material uniformly on the prepared subgrade from moving vehicles or spreader boxes.

      2) Level material to the required contour and grades.

3) Remove those portions of the layer which became segregated or mixed with subgrade material in spreading and replace with new material as required by the County.

4) Hauling which may damage the subgrade or surfacing will be restricted by the County.

5) Remove and repair subgrade damaged during application of the crushed rock surface.

b. Shaping and Compacting Materials

1) Compact layers no less than 3 or more than 6 inches thick.

2) Roll to specified compaction requirements throughout full depth of layer with power rollers, rubber-tired rollers or combination.

3) Shape and smooth by blading and rolling with power roller, rubber-tired roller, or both.

4) Hand tamp in places not accessible to rolling equipment.

5) Degree of compaction shall be as follows:

a) Base compaction on weight per cubic foot of material passing 3/4 inch sieve and compact to at least 100 percent of maximum density at optimum moisture.

b) Determine and control compaction in accordance with AASHTO T99.

6) Smoothness test shall be as follows:

a) Surface shall show no deviation in excess of 3/8 inch in any 10 feet when tested with a 10-foot straightened applied parallel with and at right angles to the center lines of the paved area.

b) Correct any deviation in excess of this amount of loosening, adding or removing material, reshaping, watering, and compacting as requested by the County.

8.4.6 HERBICIDE APPLICATIONS

8.4.6.1 GENERAL

1. Description

a. This Section includes an herbicide and method of placing on all areas to receive crushed rock surfacing prior to placing crushed rock.

8.4.6.2 EQUIPMENT AND MATERIALS

1. Sprayers and applicators shall be suitable for intended use.
2. Mix herbicide per manufacturer's recommendations.
3. Herbicide shall be Krover (I) as manufactured by Dupont, Inc., or approved equal.
4. Do not apply herbicide if it is too windy or where other adverse weather conditions exist.
5. Apply at a rate of 10 pounds of product per acre.

8.4.6.3 PERFORMANCE

1. Apply only after final subgrade has been established.
2. Apply before placing crushed rock.
3. Follow manufacturer's recommendations on timing of application with respect to weather and crushed rock placement.

9 USER RADIOS

There are over 2,200 user radios in use by various agencies and departments that operate the on the Pasco County 800 MHz EDACS system. These radios run the gamut from the very first EDACS radios manufactured, to current production units. Their configuration also varies widely, from simple 16 talkgroup analog units to 800 talkgroup digital capable system models. While a reasonable estimate of quantities by model is known, a comprehensive breakdown of equipment capabilities is not available. The following table provides a summary of unit quantities by model as of December, 2006. User radios are added to the system on an on-going basis.

Model	*Qty - County and Municipal*	*Qty - Sheriff's Office*	*Total*
500M	82	24	106
700P	69	414	483
725M	24	195	219
FMD	3	5	8
JAGUAR	10		10
LPE-200	75		75
LPE-50	8		8
M7100	15	55	70
MDX	156	67	223
MDX DESK		1	1
MPA	223	92	315
MPD	88	3	91
MRK	22	84	106
MTD	118		118
ORION	113	30	143
ORION DESK	4		4
P5100	51	11	62
P700	4		4
P7100	85	75	160
RANGR	1	54	55
RANGR DESK	3	2	5
Total	**1154**	**1112**	**2266**

It should be noted that many of the units, particularly the older models, do not have sufficient memory capacity to accommodate being programmed with dual systems simultaneously.

10 WARRANTY AND MAINTENANCE GUIDELINES

10.1 EQUIPMENT WARRANTY

M/A-COM shall warrant all rebanded/retuned system equipment and software for a period of, minimally, twelve months. Warranty will commence at the time of system acceptance and shall provide all labor and parts for maintenance and repair, including preventive maintenance where appropriate.

10.2 MAINTENANCE

During the initial warranty period, the Contractor shall be responsible for:

A. Preventive maintenance of replaced backbone infrastructure and replacement end-user equipment, if any, and if required as part of recommended normal-use maintenance.

B. Repair maintenance of replacement backbone system equipment, when necessary.

C. Repair maintenance of replacement user equipment, when necessary.

M/A-COM maintenance during the warranty period will be monitored by the PCSO or the County's Radio Shop Supervisor, as appropriate.

M/A-COM must supply monthly service logs listing the site(s) where service is performed, the equipment involved and service details. Failure of individual units, sub assemblies and/or components must be reported in writing. This report must, at a minimum, include unit identification (description and serial number), explanation and cause of failure and corrective action taken.

ATTACHMENT D –
PAYEE SETUP FORM

Sprint
Together with NEXTEL

Payee Setup Form for Rebanding Only

PLEASE FAX BACK TO (866) 221-6990

Incumbent Name:			**Date:**
Vendor Name:			
Tax ID or Social Security #:			
Check Appropriate Box for Tax Status:	☐Individual/Sole Proprietor ☐Corporation ☐ Partnership ☐Federal/State/Local Gov't Agency/Entity ☐Other_____		
Remit to Address: (Same as on Invoice)			
City:		**State:**	**Zip Code:**
Physical Address: (for Delivery of Overnight Payment)			
City:		**State:**	**Zip Code:**
Accounts Receivable (A/R) Contact Name:		**Phone No:**	**Fax No:**
A/R Email Address:			

Certification Signature for Tax Status:_____ **Date:**_____

Print Name:_____ **Phone No:**_____

Under penalties of perjury, I certify that:
1. The Tax ID or Social Security # on this form is the correct taxpayer indentification number(TIN) (or I am waiting for a number to be issued to me); and
2. I am not subject to back up withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the IRS that I am subject to backup withholding as a result of a failure to report all interest of dividends or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. person (including a U.S. resident alien and U.S. companies).

Certification Instructions: You must cross out item 2 above if you have notified the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement account (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN.

Bank Account Information:

Bank Name:_____ Name on Account:_____

Bank Address:_____ Bank Phone No:_____

Account Number:_____ Routing No:_____

Further Credit Information: _____

_____

I acknowledge that the bank information provided above is accurate.

Payee Signature:_____ Date:_____

Print Name:_____ Phone No:_____

For Sprint/Nextel Office Use Only

Entered By: _____ **PeopleSoft Vendor #:** _____

ATTACHMENT E –
INCUMBENT ACKNOWLEDGEMENT

INCUMBENT ACKNOWLEDGEMENT

Incumbent Name: _____ **Date:** _____

Deal Number (to be provided by Sprint Nextel): _____

Vendor Name (as listed on Schedule C of FRA): _____

Vendor Invoice Number(s): _____

_____

Incumbent Contact Person: _____

Incumbent Contact Address: _____

_____

Contact Person Phone Number: _____

Contact Person Fax Number: _____

Type of Good/Services Delivered (Quantity and Price as identified on Schedule C of the FRA)	Date of Acceptance of Good/Services by Incumbent	Cost
	TOTAL	

I, _____("Incumbent") acknowledge that all goods/services identified on the Invoice number referenced above and attached to this acknowledgement have been received/performed.

BY: _____
Name:
Title:

PLEASE RETURN TO SPRINT NEXTEL ONLY VIA FAX: (866)-221-6990

ATTACHMENT F –
STANDARD WARRANTY FOR M/A-COM, INC. PRODUCTS

WARRANTY

A. M/A-COM, Inc. (hereinafter "Seller") warrants to the original purchaser for use (hereinafter "Buyer") that Equipment manufactured by or for the Seller shall be free from defects in material and workmanship, and shall conform to its published specifications. With respect to all non-M/A-COM Equipment, Seller gives no warranty, and only the warranty, if any, given by the manufacturer shall apply. Rechargeable batteries are excluded from this warranty but are warranted under a separate Rechargeable Battery Warranty (ECR-7048).

B. Seller's obligations set forth in Paragraph C below shall apply only to failures to meet the above warranties occurring within the following periods of time from date of sale to the Buyer and are conditioned on Buyer's giving written notice to Seller within thirty (30) days of such occurrence:

1. for fuses and non-rechargeable batteries, operable on arrival only.
2. for parts and accessories (except as noted in B.1) sold by Seller's Service Parts Operation, ninety (90) days.
3. for the following portables and mobiles ordered after **October 1, 2007,** two (2) years:

- Portables:
  - P7200
  - P7100 IP
  - P5400
  - P5300
  - P5200
  - P5100
  - P3300
  - PANTHER ™ 405 AND 605P

- Mobiles:

  - M7300 (shipments to start early 2008)
  - M7200 (including V-TAC)
  - M7100 IP
  - M5300
  - M3300

4. for all other orders (whenever placed) and equipment of Seller's manufacture, one (1) year.

C. If any Equipment fails to meet the foregoing warranties, Seller shall correct the failure at its option (i) by repairing any defective or damaged part or parts thereof, (ii) by making available at Seller's factory any necessary repaired or replacement parts, or (iii) by replacing the failed Equipment with equivalent new or refurbished Equipment. Any repaired or replacement part furnished hereunder shall be warranted for the remainder of the warranty period of the Equipment in which it is installed. Where such failure cannot be corrected by Seller's reasonable efforts, the parties will negotiate an equitable adjustment in price. Labor to perform warranty service will be provided at no charge during the warranty period only for the Equipment covered under Paragraph B.3 and B.4. To be eligible for no-charge labor, service must be performed at a M/A-COM factory, by an Authorized Service Center (ASC) or other Servicer approved for these purposes either at its place of business during normal business hours, for mobile or personal equipment, or at the Buyer's location, for fixed location equipment. Service on fixed location equipment more than thirty (30) miles from the Service Center or other approved Servicer's place of business will include a charge for transportation.

D. Seller's obligations under Paragraph C shall not apply to any Equipment, or part thereof, which (i) has been modified or otherwise altered other than pursuant to Seller's written instructions or written approval or, (ii) is normally consumed in operation or, (iii) has a normal life inherently shorter than the warranty periods specified in Paragraph B, or (iv) is not properly stored, installed, used, maintained or repaired, or, (v) has been subjected to any other kind of misuse or detrimental exposure, or has been involved in an accident.

E. The preceding paragraphs set forth the exclusive remedies for claims based upon defects in or nonconformity of the Equipment, whether the claim is in contract, warranty, tort (including negligence), strict liability or otherwise, and however instituted. Upon the expiration of the warranty period, all such liability shall terminate. The foregoing warranties are exclusive and in lieu of all other warranties, whether oral, written, expressed, implied or statutory. NO IMPLIED OR STATUTORY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT SHALL THE SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT OR EXEMPLARY DAMAGES.

F. This warranty applies only within the United States.

M/A-COM, Inc.
1011 Pawtucket Blvd.
Lowell, MA 01853
1-877-OPENSKY

M/A-COM, Inc.
221 Jefferson Ridge Parkway
Lynchburg, VA 24501
1-800-528-7711

ECR-7047C-4/2007

ATTACHMENT G-
INSURANCE CERTIFICATE(S)

CERTIFICATE OF INSURANCE

CERTIFICATE NUMBER 331829

PRODUCER

Marsh, Inc.
1166 Avenue of the Americas
New York, NY 10036
Telephone (212) 345-5000

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER OTHER THAN THOSE PROVIDED IN THE POLICY. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES DESCRIBED HEREIN.

COMPANIES AFFORDING COVERAGE

COMPANY A: ACE American Insurance Company
COMPANY B: AI South Insurance Co.
COMPANY C: Arch Insurance (Bermuda)
COMPANY D: Commerce & Industry Ins Co
COMPANY E: Factory Mutual Insurance Company
COMPANY F: Gerling America Insurance Company
COMPANY G: Great Lakes Reinsurance (UK) PLC
COMPANY H: Ins Co State of Penn

INSURED

M/A-COM, Inc.
1011 Pawtucket Blvd.
Lowell, MA 01854
United States

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE DESCRIBED HEREIN HAVE BEEN ISSUED TO THE INSURED NAMED HEREIN FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIRMENTS, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THE CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES LISTED HEREIN IS SUBJECT TO ALL THE TERMS, CONDITIONS AND EXCLUSIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION	LIMITS	
K K	**GENERAL LIABILITY** X COMMERCIAL GENERAL CLAIMS MADE X OCCU OWNER'S & CONTRACTOR'S	GL 1871991 (AOS) GL 1871992 (FL)	10/1/2008 10/1/2008	10/1/2009 10/1/2009	GENERAL AGGREGATE PRODUCTS - COMP/OP AGG PERSONAL & ADV INJURY EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person)	$4,000,000.00 $4,000,000.00 $2,000,000.00 $2,000,000.00 $2,000,000.00 $10,000.00
K K K	**AUTOMOBILE LIABILITY** X ANY AUTO ALLOWED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	CA 6079002 (MA) CA 6079003 (VA) CA 6079004 (AOS)	10/1/2008 10/1/2008 10/1/2008	10/1/2009 10/1/2009 10/1/2009	COMBINED SINGLE LIMIT BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE	$2,000,000.00
	PROPERTY					
	EXCESS LIABILITY UMBRELLA FORM OTHER THAN UMBRELLA FORM				EACH OCCURRENCE AGGREGATE	
K D H B L	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: INCL / EXC	SEE PAGE TWO	SEE PAGE TWO	SEE PAGE TWO	X WC STATUTORY LIMITS / OTHER EL EACH ACCIDENT EL DISEASE-POLICY LIMIT EL DISEASE-EACH	$2,000,000.00 $2,000,000.00 $2,000,000.00
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

Please see page 2 for additional insureds and any additional language.

CERTIFICATE HOLDER

Pasco County Sheriff's Office
8700 Citizen Drive
New Port Richey, FL 34654

CANCELLATION

SHOULD ANY OF THE POLICIES DESCRIBED HEREIN BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE INSURER AFFORDING COVERAGE WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED HEREIN, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER AFFORDING COVERAGE, ITS AGENTS OR REPRESENTATIVES, OR THE ISSUER OF THIS CERTIFICATE.

MARSH USA INC. BY:
David Kong, Casualty Program

ADDITIONAL INFORMATION

CERTIFICATE NUMBER
331829

PRODUCER

Marsh, Inc.
1166 Avenue of the Americas
New York, NY 10036
Telephone (212) 345-5000

COMPANIES AFFORDING COVERAGE

COMPANY I: Lexington Insurance Company

COMPANY J: Lloyd's of London (AGM 2488)

COMPANY K: Nat'l Union Fire Ins Co of Pittsburgh,PA

COMPANY L: New Hampshire Ins. Co.

INSURED

M/A-COM, Inc.
1011 Pawtucket Blvd.
Lowell, MA 01854
United States

COMPANY M: New York Marine & General Insurance Co. (Lead)

COMPANY N: Zurich North American Insurance Company

TEXT

WORKERS COMPENSATION POLICIES

	Carrier	Policy Number	Eff. Date	Exp. Date	State
(K)	Nat'l Union Fire Ins Co of Pittsburgh,PA	WC 4800726	10/1/2008	10/1/2009	CA
(D)	Commerce & Industry Ins Co	WC 4800727	10/1/2008	10/1/2009	FL
(H)	Ins Co State of Penn	WC 4800728	10/1/2008	10/1/2009	AR,MA,TN,VA
(B)	AI South Insurance Co.	WC 4800729	10/1/2008	10/1/2009	CT,GA,PA,SC
(K)	Nat'l Union Fire Ins Co of Pittsburgh,PA	WC 4800730	10/1/2008	10/1/2009	AOS
(L)	New Hampshire Ins. Co.	WC 4800731	10/1/2008	10/1/2009	NY,OH,WA,WI
(L)	New Hampshire Ins. Co.	WC 4800732	10/1/2008	10/1/2009	OR
(L)	New Hampshire Ins. Co.	WC 4800733	10/1/2008	10/1/2009	TX

LIABILITY PROGRAM
Certificate holder and any parties listed below are added as an additional insured for General Liability and Auto Liability, however, that coverage and any obligation to defend and indemnify under such policies is strictly limited to damage, liability, and expense resulting from the negligence or willful misconduct of the named insured and the named insured's agents and employees.

The insurance will be primary and non-contributory, with respect to any other insurance carried by the certificate holder, but only to the extent of the Named Insured's negligence.

Additional Insureds: Pasco County Sheriff's Office, Pasco County, Florida, City of Dade City, Florida

Project: Contract for Rebanding Services

If there is a question regarding this certificate please contact John Muskopf
(Email: muskopfjo@tycoelectronics.com Phone: 434 455-9400)

CERTIFICATE HOLDER

Pasco County Sheriff's Office
8700 Citizen Drive
New Port Richey, FL 34654

ATTACHMENT H –
PERFORMANCE BOND

THE AMERICAN INSTITUTE OF ARCHITECTS

Bond No. 82141703

AIA Document A312

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

M/A-COM, Inc.
221 Jefferson Ridge Parkway
Lynchburg, VA 24501

SURETY (Name and Principal Place of Business):

Federal Insurance Company
15 Mountain View Road, P.O. Box 1615
Warren, NJ 07061-1615

OWNER (Name and Address):

OWNER: Pasco County Sheriff's Office
8700 Citizen Drive
New Port Richey, FL 34654

Pasco County, FL
37918 Meridan Avenue
Dade City, FL 33525

City of Dade City
38020 Meridan Ave
Dade City, FL 33525

CONSTRUCTION CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Construction Contract Date)
Amount:
Modifications to this Bond: ☐ None ☒ See Page 3

CONTRACTOR AS PRINCIPAL
Company: (Corporate Seal)
M/A-COM, Inc.

SURETY
Company: (Corporate Seal)
Federal Insurance

Signature: _____
Name and Title

Signature: _____
Name and Title

(Any additional signatures appear on page 3)

(FOR INFORMATION ONLY—Name, Address and Telephone)

AGENT or BROKER:
Willis of New York, Inc.
One World Financial Center, 200 Liberty Street
New York, NY 10281
212-915-8888

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3 If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

3.1 The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and

3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

3.3 The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4 When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1 Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or

4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or

4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or

.2 Deny liability in whole or in part and notify the Owner citing reasons therefor.

5 If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6 After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:

6.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

6.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and

6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

7 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators or successors.

8 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

9 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation avail-

able to sureties as a defense in the jurisdiction of the suit shall be applicable.

10 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

11 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12 DEFINITIONS

12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

12.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	(Corporate Seal)	Company:	(Corporate Seal)
Signature:		Signature:	
Name and Title:		Name and Title:	
Address:		Address:	