	Evaluation					
Item	Category	Max Points				
2.5.1	Executive Summary	5				
2.5.2	Organization Information	5				
2.5.3	Experience	5				
2.5.4	Compliance Matrix	5				
2.5.5	Proposed Design	30				
2.5.6	Project Management, Implementation, and Migration	10				
2.5.7	Warranty, Maintenance and Support	10				
2.5.8	Additional Information	5				
2.6	Pricing	25				
		100				

	Key Points									
Item	Category	Max Points Communications International		Motorola	Williams Communications	FE Comments				
	Executive Summary	5								
2.5.1	Executive Summary		The CI Executive Summary provided a high-level summary of the proposed system. Key points included were: 6-Site system Geographically Redundant Cores Loop Microwave Network Distributed Control Points Local Service 5-year Warranty Cost Saving Options Coverage exceeding RFP requirements (98% vs 95%) Interoperability (ISSI & BeOn app) Transition Plan comments 15-Month Schedule VIDA Core, Two47 Base Stations, Symphony consoles, XL-185 portables	The Motorola Solutions Executive Summary provided a high-level summary of the proposed system. Key points consisted of the following: Coverage options between 700 MHz and 800 MHz frequencies Coverage testing of "round trip" In-Building coverage guarantees 6- site system Geographically redundant Prime Sites (simulcast control and voting) Master site with redundant controllers LTE Convergence Option System Manager Terminal Fire Station Alerting - two-tone or Call Alert Nokia Microwave Backhaul Encryption Dispatch Consoles Logging Recorder expansion/upgrade Subscriber Devices Interoperability via FDMA/TDMA 16-Month Schedule Services to be provided 3-year warranty with Maintenance package for years 4-10	The Williams Communications Executive Summary provided a high level summary of the proposed system. Key points consisted of the following: Coverage - additional 6 dB in-building coverage countywide and 20 dB in towns as well as 95% coverage guarantee in all critical buildings. all with a 1/4 antenna 2+0 microwave design Additional microwave hop for dispatch center Secondary simulcast RF Core Opportunity to partner with State of Florida for over \$2.4M in savings. Phase 2 functionality in all subscribers LTE hardware equipped XL-185 radios Core to Core connection with SLERS for redundancy/interoperability overview of the Williams team Coverage guarantee - 96% portable outdoors with 1/4 wave antenna, 95% portable within 6 dB buildings countywide, 98% mobile unity gain antenna, 95% within 20 dB buildings within Bronson, Cedar Key, Chiefland, Inglis, Williston. Extreme speaker mic Symphony consoles Two47 base stations	All vendors provided an executive summary. The Executive Summaries (ES) did not include any information that wasn't detailed in the description of the proposed system(s). Note that Ci's ES describes a 15 month schedule but the preliminary schedule shown in the body of the proposal is for 21 months.				
2.5.2	Organization Information	5								
В	Organization Chart		Ci provided organization chart detailing Ci organization and Levy project support personnel.	Motorola provided organization chart detailing the Executive Committee. Top seven officers	Organization chart provided depicting personnel from CEO to the multiple office locations.	All vendors provided organizational charts and all vendors met the requirements.				
С	Staffing Chart		Project Support Chart provided detailing project team members. Subcontractors and partners section detailed L3Harris as a partner. Also listed were MNI and Datapath Tower.	Staffing chart provided detailing the Motorola Solutions, Tri-Co, and Infinity teams.	Staff consisting of the Levy County's assigned project team included the following: Lead System tech, On-site project manager, director of engineering, on-site system tech, network/microwave engineer, lead engineer, training manager.	All vendors provided staffing information and all vendors met the requirements				
D	Job Descriptions		Job descriptions provided for Project Director, Project Manager, System Engineer, and Site Manager.	Job descriptions provided for Project Manager, Site Development Manager, System Engineer, System Technologist, Customer Support Manager, Account Executive, and Training Manager. Also provided were the Job Descriptions from the Tri-Co team - Account Manager, Operations Manager, Radio Subscriber Engineer, System Technologist, and Customer Support Manager. Infinity Project team job descriptions provided for the following: Project Manager, Project Engineering, and Lead Technician.	Job descriptions included in the Project Management Plan for the following - Project Manager, System Engineer, Site Manager, Lead System Technician, System Administration Specialist and Training Manager.	All vendors provided job descriptions and all vendors met the requirements				
E	Staff Resumes		Resumes provided for Director of Programs, Project Manager, and Chief Engineer	Resumes provided for Motorola Solutions' Project Manager, Site Development Manager, Site Development Project Consultant, System Engineer, System Technologist, Customer Support Manager, Account Executive, and Training Manager. Resumes provided for the following Tri-Co personnel - Account Manager, Senior System Technician, System Technologist, Customer Support Manager, and Operations Manager. Resumes provided for the following Infinity Microwave personnel - Project Manager, Sr Sales Engineer, and Field Technician,	Resumes were provided for the following: lead project manager, director of engineering, senior system engineer, sales and implementation engineer, system administration specialist, technical services manager, system technician, lead system technician, field engineer, vehicle upfitting sales and service, site manager, service center manager. Included resume for subcontractor Custom Tower (Owner resume included)	All vendors provided resumes and all vendors met the requirements				
2.5.3	Experience	5								
	Proposer shall describe five successfully completed LMR projects of similar size and complexity for public-safety agencies.		Ci provide references from the following: Hillsborough County, FL Brevard County, FL Collier County, FL Charlotte County, FL Indian River County, FL Johnston County, NC City of New Bern, NC Pineville, NC Sumner County, TN City of Coral Gables, FL City of Aventura, FL Volusia County, FL Tampa International Airport, FL	Motorola provided references from the following: Bulloch County, GA Citrus County, FL Columbia County, FL Douglas County, GA Flagler County, FL Lee County, FL Marion County, FL	Williams provided the following as projects completed: Floyd County, GA Macon-Bibb County, GA Pasco County, FL Walton County Sheriff's Office, FL Camden County, GA	All vendors provided at least five successfully completed projects and references. Ci provided 13 projects, though only five were required.				
	Compliance Matrix	5								
2.5.4	Compliance Matrix		Ci's provided compliance matrix indicated compliance with all items. Ci also included a copy of the functional specification and noted their compliance with each section.	Motorola's provided compliance matrix indicated compliance with all items	Williams provided compliance matrix indicated compliance with all items	All proposals indicated that the vendors complied with all items contained within the compliance matrix but the details on the proposal leave some questions as to how the vendors will comply with some items, as detailed below.				
2.5.5	Proposed Design	30								

1	System Description	Geographically redundant VIDA Unite Cores (Dispatch & Bronson). Six site simulcast cell with the following RF sites: Bronson (DCP site) Gulf Hammock (DCP site) Cedar Key Chiefland Inglis Williston Six Channels (Two-47 base stations, single TX and single RX antenna), DC Plants provided. Proposal states that DC plants will meet the RFP specifications. Proposal indicated that 8 talkpaths would be provided per RF Site. Interoperability stations proposed are XG-75M CS7000 control stations supporting VHF, UHF and 7/800 MHz. Compliance matrix indicated compliance with the requirement for the dispatch center to also be equipped with a multiband control station however, supporting info could not be located within proposal.	Single Master site configured with redundant servers Geographically redundant Prime Sites Six site simulcast cell containing following sites: Bronson (Master, Prime) Chiefland (Geo-Prime) Cedar Key Inglis Gulf Hammock Williston Prime sites (primary and redundant) contain 2 virtual prime site controllers Six channel RF sites containing six GTR-8000 base radios, single TX and single RX antenna RF sites and dispatch site to also contain 1 APX all-band consolette control station and conventional channel gateway equipped for 8 ports. (7 available after APX consolette is connected)	Geographically separated VIDA Unite Cores (Bronson & Gulf Hammock) Six site simulcast cell containing the following sites: Bronson (VIDA Core) Gulf Hammock (VIDA Core) Williston (DCP site) Inglis (DCP site) Cedar Key Chiefland Six channel system - MASTR V stations w/DCP detailed with new TWO47 stations listed "as an upgrade" at no additional cost. Single TX and RX antenna per site. Two geographically separated Distributed Control Points Block diagrams indicated each RF site contains interop gateways (8). Pricing sheets detail 7 - XL-200M multiband control stations. (6 required for RF sites, 1 for dispatch)	Sites - All vendors proposed use of the existing six sites and six channels as depicted in the RFP. System Control Equipment - Ci and Williams provided geographically separate locations for their core servers whereas Motorola's core (Master Site) contains redundant equipment in a single location. Simulcast and Voting Operation - All vendors proposed redundant simulcast and voting equipment geographically separated. The L3Harris equipment proposed by Ci and Williams performs these functions via software (Distributed Control Point) within the base stations whereas these functions are performed by separate dedicated equipment in a Motorola system. RF Site Base Stations - Ci proposed L3Harris new Two47 base stations, which is a new, recently launched product. Williams proposed L3Harris MastrV stations but, stated that the MastrV stations could be upgraded to Two47 stations at no additional cost. Motorola proposed their GTR8000 stations. All vendors proposed single TX and RX antenna systems. Channels - All vendors proposed the required six P25 phase 2 (TDMA) channels. All vendors included phase 1 (FDMA) and Phase 2 (TDMA) operation. Interoperability Gateways - Did not find reference within Ci's proposal to the multiband control station required within the dispatch center. Motorola's block diagram drawing included the multiband consolette and Williams' price pages included 7 multiband control stations. All vendors included the interop gateways at each RF site with each containing 8 ports. DC Power - All vendors proposed DC power plant equipment providing 2-hour runtime.
		BeON PTT service provided with Foundation service and 25 client capability. Proposal stated that this base service is upgradeable via software licensing to support up to 500 or 5,000 BeON users.	WAVE PTX for Public Safety provided with 500 user licenses and 10 simultaneous talk path licenses. Service listed as a "subscription".	Proposal stated that the BeON app is included in all Public Safety radios (via Wi-Fi). The equipment list detailed the Foundation service. It is assumed that only 25 licenses are provided for the system's integration with BeON. Williams to verify the actual provided number of BeOn licenses.	Motorola's WAVE PTX feature requires a monthly/annual subscription. The Ci and Williams proposed BeON solution does not require an ongoing subscription but, would require additional licenses be purchased. A minimal amount was provided in the Ci and Williams proposals. Additional discussions will be needed with the selected vendor to clarify the total cost of each vendors offer, based on desired number of County users.
2	Dispatch console system including Fire station alerting and logging recorder systems	Consoles - Six Symphony consoles proposed Backup Control Stations - Proposal provided single bullet stating "Symphony console backup stations also include direct, wired connectivity to the console for control". The system block diagram details six control station backup radios. No additional details found pertaining to the console backup stations. NICE Recorder Upgrade - Nice recorder updated to P25 with encryption. Fire Station Alerting (FSA) - two-tone Fire Station Alerting from Symphony consoles. Each fire station equipped with P25 control stations that include 2 tone paging decoders. These stations can provide contact closures to control klaxons, automatic doors, and/or lighting, as well as audio which can be integrated into existing PA systems. Unication pagers also provided.	Consoles - Six MCC7500E consoles Backup Control Stations - Six 700/800 MHz APX Consolette control stations for backup provided. APX consolettes to be rack mounted in back room and connected to the consoles via the CCGW device. MCD5000 desk sets provided for each console position for remote control of the APX consolettes. NICE Recorder Upgrade - Logging recorder upgrade includes two new IP logger servers to interface with new P25 system. These two new servers will be integrated with existing playback software and the NICE Inform Organizer software is being provided to provide additional playback reconstruction. Fire Station Alerting(FSA) - Proposal indicated that FSA could be performed by either two-tone or call alert signaling. Both methods are supported by Motorola control station, portable radio, and Unication pagers. Could not locate additional control stations for Fire Stations (15) listed in Appendix C. Motorola to clarify if these units are being provided.	Backup Control Stations - Dispatch section detailed that Symphony dispatch platform includes XL-200M control station backup radios. Block diagram details console positions included backup radios with remote control heads, a desk mic and speaker. No additional related verbiage was found within the proposal. NICE Recorder Upgrade - Nice recorder upgrade shown in schedule however, specific details could not be located in proposal. Unication pager proposed Fire Station Alerting (FSA) - Proposal included PRISM Fire Station Alerting equipment at each fire station (15). PRISM equipment contains 8 relay outputs which can be utilized to turn off appliances, open garage doors, turn on lights or sirens. Unication pagers also	radios but neither Williams nor Ci provided additional verbiage detailing their backup solution. NICE Recorder Upgrade - Ci proposed an upgrade of the existing recorder. Motorola provided two new IP logger servers to capture P25 audio from the P25 system. The new logger will be integrated via the existing Inform solution. Motorola has also proposed the NICE Inform Organizer software. Williams showed a Nice recorder upgrade in schedule however, specific details could not be located in proposal.
3		MNI loop-protected IP Microwave Backhaul (all sites contained diversity antennas) - 6' main dishes with 3' diversity dishes. Path analysis provided. MNI Proteus MX radios proposed. MPLS routers proposed for use between cores and symphony consoles. Ci to pull fiber between existing Bronson shelter and new Bronson shelter.	Nokia ring protected microwave provided. six-hop Nokia Wavence MPT-HLC all indoor microwave radios with MPLS routers. All sites require diversity dishes. Mostly 8' and 6' combinations, Chiefland requires 10' and 6' dishes. Reusing fiber between Bronson and Dispatch. No mention of installation of new fiber between existing Bronson shelter and new shelter.	Imicrowave using 2+0 design (two radios per non - treduency diversity with lower	Microwave Backhaul - The Ci and Motorola proposed microwave networks were similar with the main difference being the size of the dishes. Ci proposed six foot main dishes with three foot diversity dishes on all towers. Motorola proposed a combination of eight foot and six foot dishes at all sites except for the Chiefland site where ten foot and six foot dishes were required for the link to Cedar Key. Larger dishes provide higher gain and better theoretical performance but create more tower loading as well. Williams proposed single six foot dishes on all towers utilizing a 2+0 configuration where two radios are provided for each hop using different frequencies and lower modulations. Williams is proposing frequency diversity where the other vendors proposed path diversity. Space diversity is typically more resilient than frequency diversity but also creates more tower loading. All vendors proposed the same path/site constellation. Williams proposed a redundant link between the dispatch center and Gulf Hammock site via a passive repeater at the Bronson Site. This link would be utilized as a redundant path in the event of a fiber failure between dispatch and the Bronson site.

5	Network Management Systems	Network Management Control System: Residing on HA VM. System Management terminal to be located at the Dispatch Center. Proposed were typical L3Harris network management applications (these applications were shown on the system block diagram): Unified Administration System (UAS) Regional Network Manager (RNM) Enterprise Network Manager (ENM) Regional Site Manager (RSM) The following cybersecurity services are provided: Active Directory (AD) McAfee epolicy Orchestrator (ePO) Security Update Mgmt. Service (SUMS) Unitrends Backup Server (BAK) FirePower Management Center (FMC)	Motorola proposed their typical Network Management System applications utilized for network monitoring, configuration management, accounting management, and security management. The following were listed in the proposal: Unified Event Manager (UEM) Unified Network Configurator (UNC) ZoneWatch Provisioning Manager (PM) Event Logging (Syslog) Dynamic Reports System Cybersecurity standards were listed. This list included: Centralized Authentication Secure Network Communications Secure Network Management Router Access Control Lists Secure Software Download Ethernet Switch Port Security Backup and Recovery Secure Access to the Console A single network management terminal was proposed. The location of this terminal was not identified. It is assumed this client would be located at the Master Site.	The Williams proposal included the following network management applications listed on the block diagram: Unified Administration System (UAS) Regional Network Manager (RNM) Regional Site Manager (RSM) Active Directory (AD) In addition Williams proposed the Site Portal application as a single application providing alarm information from all system components including the L3Harris P25 system alarms, site alarms and the Aviat microwave system.	The three proposals included typical network management applications from the Motorola and L3Harris systems. Williams added the Site Portal application as a system that would allow for a single location to view all system, microwave and site alarms. It is unclear if Site Portal is provided as a stand alone enterprise solution or as software as a service.	
В		Drawings provided: Tower height and antenna/dish placement Microwave layout/map detailing ring configuration System Block diagram Core Rack Diagram Core Floor plan Base station rack ups RF Shelter Floor plan Symphony dispatch center diagram (basic limited info) No equipment lists were found in proposal	Drawings provided: System topology detailing microwave ring and site usage Master Site drawing Bronson simulcast prime and RF site Chiefland simulcast geo-prime site and RF site typical remote RF site for all other sites Dispatch site block diagram Antenna and RF distribution Bronson rackup drawing Chiefland rackup drawing Gulf Hammock and RF site rackup drawings Equipment list provided	Drawings provided: System block diagram Symphony console block diagram Simulcast site w/DCP rackup drawing Simulcast site rackup drawing Floorplan drawing for new shelter Transmit and Receive antenna drawings Equipment list provided	All the three proposals contained system drawings. Motorola's drawings were the most detailed. Williams drawings provided less detail than Motorola's but more than Ci's. Ci's drawings were the least detailed and Ci did not include an equipment list in their proposal.	
D	1	Equipment specification sheets provided. Ci included a TOC list of provided brochures/specification sheets	Equipment specification sheets provided. Motorola separated spec sheets into two separate files and organized by equipment use. Dispatch, prime site, rf site, etc.	Williams provided specification sheets as required.	All vendors provided specification sheets. Motorola separated their specification sheets into two separate files and organized by use dispatch, prime site, rf site, etc. Ci included a TOC for provided specification sheets.	
F	Radio Coverage	Ci provided information detailing that the existing six sites will provide the requested 95% portable outdoor coverage goal. The critical buildings list was provided with a single location noted as not having the require 12 dB signal margin.	Motorola provided a coverage guarantee of 98% mobile and 96% portable on street as well as within critical buildings (limited to 12 dB). Additional coverage guarantees were provided based on "improved performance" of APX subscribers vs. TSB-88 parameters. A 5-site system was also offered as a cost saving measure. CATP for the 5-site system would be provided just prior to contract signing Motorola also indicated that roundtrip coverage testing would include same tile passing both talk-in and talk-out testing. Motorola indicated that if 800 MHz Non-NPSPAC frequencies were utilized coverage guarantees could be improved to mobile -98% and portable outdoors to 97%. A five site system utilizing 800 MHz Non-NPSPAC frequencies would be guaranteed to 97% mobile and 96% portable utilizing Motorola APX radios. All critical buildings were guaranteed up to a loss of 12 dB. This critical building guarantee was stated as only applying to the 6-site design.	The Williams proposal included the use of 800 MHz Non-NPSPAC frequencies. 700 MHz coverage information was not provided. Williams noted that coverage was provided to portables using 1/4 wave antennas. The Williams proposal provided the difference in size between a XL-185 with 1/4 wave vs. APX6000 with 1/2 wave antenna. Coverage guarantees provided are: 96% Portable outdoors 1/4 wave on hip, 95% portable indoors within 6 dB buildings, 98% mobile unity antenna, 95% portable within 20 dB buildings, 1/4 wave for cities of Bronson, Cedar Key, Chiefland, Inglis, and Williston. All critical buildings and fire stations covered.	All vendors provided a coverage guarantee meeting the RFP requirement of 95% portable on the street. The Ci proposal indicated that a single building would not meet the coverage requirement. All other vendors indicated the critical buildings would pass	
1	coverage maps for mobile and on-street portable radios.	Maps provided: Mobile Talk-in Mobile Talk-out Portable Talk-in Portable Talk-out Portable Talk-out Portable Talk-out Portable Talk-in 12 dB buildings Portable Talk-out 12 dB buildings	Maps provided: Mobile Talk-in Mobile Talk-out Portable Talk-in (TSB-88 specs) Portable Talk-in (TSB-88 specs) Portable Talk-in 12 dB buildings (TSB-88 specs) Portable Talk-out 12 dB buildings (TSB-88 specs) Portable Talk-out 12 dB buildings (TSB-88 specs) Heat map portable talk-in (TSB-88 specs) Heat map portable talk-out (TSB-88 specs) Alt portable maps for portable maps listed above but, detailing APX portable specs and not TSB-88 specs)	Maps provided: Mobile talk-back Portable talk-back outdoors Portable talk-back 6dB buildings Portable talk-back 12 dB buildings Portable talk-back 20 dB buildings Mobile talk-out Portable talk-out outdoors Portable talk-out 6dB buildings Portable talk-out 12 dB buildings Portable talk-out 12 dB buildings	All vendors provided the required coverage maps. Motorola and Williams provided additional maps. Motorola included a set of coverage maps detailing expected coverage using APX radios. Williams included 6 dB and 20 dB attenuated portable coverage maps.	

A description of the frequency coordination and FCC licensing procedures that the Proposer will follow to comply with the spectrum and licensing requirements.	Ci provided a description of the steps required to submit applications to the FCC. The proposal stated that a new application would be created for the proposed system and submitted appropriately.	Motorola's proposed stated that they would follow the Region 5 700 MHz Florida plan for submitting an application for FCC licenses. Information was also provided for the submission of the alternate 800 MHz Non-NPSPAC frequencies.	The Williams proposal states, "Upon contract award, Williams would move to immediately apply for FCC licensing of the new radio system".	All vendors indicated that FCC license submissions would be provided. Motorola provided the most details and proposed the use of EZ Spectrum's service.
1 Subscriber Devices				
Portable Subscriber Units				
a Law Enforcement	XL-185P - P25 Phase 1 & 2, single-key AES, GPS Tier 2	APX6000, P25 Phase 1 & 2, AES encryption, multikey, GPS/AVL, spare battery (Note-Price pages detailed APX6000Li, proposal detailed APX6000)	XL-185 - P25 Phase 1 & 2, AES encryption, multikey (AES & DES), GPS/AVL, Spare battery	Motorola and Williams included multikey in their pricing, Ci detailed multikey as an option assuming that this feature was not required.
b Fire and Rescue Personnel	XL-185P (Fire model) - P25 Phase 1 & 2, single-key AES, GPS Tier 2, high visibility color, larger knobs and controls, extended noise reduction	APX6000XE, P25 Phase 1 & 2, AES encryption, multikey, GPS/AVL, spare battery	XL-185P (Fire model) - P25 Phase 1 & 2, single-key AES, GPS Tier 2, high visibility color, larger knobs and controls, extended noise reduction, spare battery	Motorola and Williams included multikey in their pricing, Ci detailed multikey as an option
c Public Service Departments	XL-45P - P25 Phase 1 & 2, GPS operation	APX900, P25 phase 1, GPS/AVL, spare battery. (Note-Phase 2 not provided)	XL-45P - P25 Phase 1 & 2, GPS operation, spare battery	
K Mobile Subscriber Units				
a Law Enforcement	XG-75M - P25 Phase 1 & 2, single key AES, GPS Tier 2. Remote mount with external speaker, microphone and antenna	APX4500, Phase 1 & 2, AES encryption, multikey, GPS/AVL. Remote mount with external speaker, microphone and antenna.	XL-185M - P25 Phase 1 & 2, AES, multikey, GPS/AVL. Remote mount unit with external speaker, microphone and mobile antenna	Motorola and Williams included multikey in their pricing, Ci detailed multikey as an option
b Fire and Rescue Personnel	XG-75M - P25 Phase 1 & 2, single key AES, GPS Tier 2. Remote mount with external speaker, microphone and antenna	APX4500, Phase 1 & 2, AES encryption, multikey, GPS/AVL. Remote mount with external speaker, microphone and antenna.	XL-185M - P25 Phase 1 & 2, AES, multikey, GPS/AVL. Remote mount unit with external speaker, microphone and mobile antenna	Motorola and Williams included multikey in their pricing, Ci detailed multikey as an option
c Public Service Departments	XG-25M - P25 Phase 1, GPS Tier 2. Dash mount with microphone and antenna	APX1500, Phase 1, GPS/AVL. Dash mount with microphone and antenna	XG-25M - P25 Phase 1, GPS/AVL. Dash Mount with microphone and antenna.	
L Microwave Path Analyses	Ci provided preliminary path analysis	Motorola provided primary path analysis	Williams provided preliminary path analysis	All vendors provided preliminary path analysis for their proposed microwave solution
M Training				
a Training Courses	Proposed Training: System Manager Radio User Dispatcher (Console configuration & Operator)	Proposed training - Console Operator Training Radio User Training Radio System Administrator Training	Proposed Training: System Administrator User Radio Dispatch Maintenance	All vendors provided required training. The Williams' proposal included maintenance training.
c Training description	Dispatcher Training - Console configuration (2-day course for 10 participants), Console operational training (2 course sessions in single day 15 participants per session) Radio User Training - Train the trainer sessions - Four sessions provided for up to 25 participants per session System Manager Training (2 participants) - P25 Fleet Mapping (4-days), P25 system overview (5-four hour sessions), UAS course (3-four hour sessions), RNM course(2-four hour sessions)	Console Operator training - 10 participants (2 sessions 5 persons each), 8 hour sessions Radio User Training - 20 participants, train the trainer course (4 session, 5 persons each), 8 hours sessions Radio System Administrator Training - 12 participants, Courses - ASTRO25 System overview, ASTRO25 System fleetmapping migration, ASTRO25 Systems applied	System Administrator Training - 10 participants, multiple courses - P25 System administration course, P25 fleetmapping workshop, Unified administration system course, regional network manager course, active directory course Radio User Training - 600 total users, 30 sessions (2 per day - 15 days) 20 participants per session. Sessions 2 hours each. Dispatcher Training - Symphony consoles - 2 days (2 sessions per day, 4 hour sessions) Console Configuration 2 days (1 - 8 hour session per day) System Maintenance Training - 10 participants, P25 System maintenance course, regional network manager, network operation & maintenance course, P25 simulcast system maintenance, RF maintenance, active directory.	Vendors provided the required training courses. Some of the Motorola courses were shown to be in Ft Lauderdale.
Project Management, 2.5.6 Implementation, and Migration				
Project Management Plan	Ci provided a project management plan that included a schedule detailing a 21 month period from 11/2022 to 8/2024	Motorola provided a project management plan that included a scheduled detailing a 16 month period from 1/2023 to 4/2024	Williams provided a project management plan that included a schedule detailing a 10 month period from 9/2022 to 7/2023	Williams' schedule appears too aggressive and some items appear to start too early and dependencies appear to be incorrect. Motorola's schedule is a bit more realistic with the Ci schedule in the proposal likely being closest to achievable given current market conditions and supply chain issues.
Site Work Dispatch	Matrix provided detailed the County's responsibility to provide new cable entry port and upgrade grounding system to meet L3Harris specifications. Ci's responsibilities included installation of dispatch control station antennas and providing new UPS for consoles. Proposal included removal of legacy equipment.	New Liebert UPS in equipment room, each new position to receive new UPS (total of six). Installation of control station antennas "will be run to the outdoor antenna location using the least obtrusive method".	Schedule detailed installation, programming, and optimization of consoles. Could not locate any detailed info related to civil work at the dispatch center.	Additional clarifications will be needed from the selected vendor to clarify some of the site work at dispatch. Williams proposal was the most lacking in details, Motorola provided the most information, Ci's detail level was in between these.

Site Work Bronson	Coordinate structural analysis with tower owner Install new shelter and new ATS Install 2 antennas for the P25 system Supply and install side arms for all antenna and dish mounts. Install tower top amplifier. Install 1/2", 7/8" and 1 5/8" transmission line as required. Install grounding as required. Perform sweep test on transmission lines. Install 4 dishes and waveguide, ground, and align antennas. Supply and install all necessary grounding to meet the required specifications. Install P25, microwave, and DC equipment Install fiber between existing shelter and new shelter to extend existing dark fiber from dispatch	 ☑ Install up to <u>3 antennas</u> for the RF system. ☑ Supply and install side arms for antennas. ☑ Supply and install microwave dishes on tower as required. ☑ Install 1 tower-top amplifier. ☑ Install 1/2-inch transmission line as required. 	No site by site list of items to be provided. Pricing sheets detail structural analysis and grounding improvement line items for each RF site except for Bronson. Assumed no grounding improvements for Bronson due to new shelter being provided. New 45 kW generator priced for Gulf Hammock RF site.	All vendors claimed compliance with all installation items contained within the compliance matrix. Motorola provided the most information related to site and civil work. Motorola provided new and larger generator at the Bronson site and providing services to relocate the existing generator to the Gulf Hammock site. Motorola included, "install up to 3 antennas for the RF system". Motorola to clarify if the third antenna is for the multiband control station or if they are expecting diversity receive antennas. No related info found.
Site Work Bronson (cont)		Site Components: Provide and Install new 12' x 16' Pre-cast Shelter with new 50KW Generator to support master. Provide and Install new DC power systems in RF shelter per the RFP. Install grounding at the site per the RFP and Motorola R56 Specifications. Miscellaneous Work: Remove existing antennas, lines and equipment from the current site once equipment and system cutover has been completed. Relocate existing 35kw Generator, repurpose at the Gulf Hammock site.		
Site Work Cedar Key	No structural analysis, Ci stated, "A structural analysis is not planned for this location as it was recently constructed with input specifications from the County for future RF site equipment" Install 2 antennas for the P25 system Supply and install side arms for all antenna and dish mounts. Install tower top amplifier. Install 1/2", 7/8" and 1 5/8" transmission line as required. Install grounding as required. Perform sweep test on transmission lines. Install 4 dishes and waveguide, ground, and align antennas. Supply and install all necessary grounding to meet the required specifications. Install P25, microwave, and DC equipment	Architectural & Engineering: ② Construction Drawings. ② Structural Analysis. ② Limited NEPA. ② Tower Mapping. ② Existing tower retrofit and blueprint for structural upgrade. ② Soil Resistivity testing. ② Construction Material testing. Antenna and Transmission Line: ② Install up to 3 antennas for the RF system.	No site by site list of items to be provided. Pricing sheets detail structural analysis and grounding improvement line items for each RF site except for Bronson.	All vendors claimed compliance with all installation items contained within the compliance matrix. Motorola provided the most information related to site and civil work. Motorola included, "install up to 3 antennas for the RF system". Motorola to clarify if the third antenna is for the multiband control station or if they are expecting diversity receive antennas. No related info found. Ci noted that a structural analysis is not provided for the Cedar Key site.
Site Work Cedar Key (Cont)		Site Components: Provide and Install new primary SAD/MOV surge protection. Provide and Install new secondary MOV surge protection. Upgrade internal grounding. Update interior lighting to meet requirements. Miscellaneous Work: Supply and install signage, Fire Extinguishers, and First Aid kit at the site in accordance with R56 Remove existing antennas, lines and equipment from the current site once equipment and system cutover has been completed. For monitoring environmental.		

<u> </u>		Asshitastural 9 Facinosciery		1
Site Work Chiefland	Coordinate structural analysis with tower owner Install 2 antennas for the P25 system Supply and install side arms for all antenna and dish mounts. Install tower top amplifier Install 1/2", 7/8"/ and 1 5/8" transmission line as required. Install grounding as required. Perform sweep test on transmission lines. Install 4 dishes and waveguide, ground, and align antennas. Supply and install all necessary grounding to meet the required specifications. Install P25, microwave, and DC equipment	Architectural & Engineering: ② Construction Drawings. ② Structural Analysis. ② Limited NEPA. ③ Tower Mapping. ② Existing tower retrofit and blueprint for structural upgrade. ② Soil Resistivity testing. ③ Construction Material testing. Antenna and Transmission Line: ③ Install up to 3 antennas for the RF system. ② Supply and install side arms for antennas. ② Supply and install microwave dishes on tower as required. ② Install 1 tower-top amplifier. ② Install 1/2-inch transmission line as required. ② Install 7/8-inch transmission line as required. ② Install 1-1/4-inch transmission line as required. ② Install Wave Guide line as required for microwave. ② Perform sweep tests on transmission lines. ③ Supply and install 1 ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition	No site by site list of items to be provided. Pricing sheets detail structural analysis and grounding improvement line items for each RF site except for Bronson.	All vendors claimed compliance with all installation items contained within the compliance matrix. Motorola provided the most information related to site and civil work. Motorola included, "install up to 3 antennas for the RF system". Motorola to clarify if the third antenna is for the multiband control station or if they are expecting diversity receive antennas. No related info found.
Site Work Chiefland (cont)		Site Components: Provide and Install new primary SAD/MOV surge protection. Provide and Install new secondary MOV surge protection. Upgrade internal grounding. Update interior lighting to meet requirements. Miscellaneous Work: Supply and install signage, Fire Extinguishers, and First Aid kit at the site in accordance with R56 Remove existing antennas, lines and equipment from the current site once equipment and system cutover has been completed. For monitoring environmental. Supply and install alarm sensors as required		
Site Work Gulf Hammock	Coordinate structural analysis with tower owner Install new shelter and new ATS Install new generator Install 2 antennas for the P25 system Supply and install side arms for all antenna and dish mounts. Install tower top amplifier Install 1/2", 7/8" and 1 5/8" transmission line as required. Install grounding as required. Perform sweep test on transmission lines. Install 3 dishes and waveguide, ground, and align antennas. Supply and install all necessary grounding to meet the required specifications. Install P25, microwave, and DC equipment	Architectural & Engineering: ② Construction Drawings. ② Structural Analysis. ② Limited NEPA. ② Tower Mapping. ③ Existing tower retrofit and blueprint for structural upgrade. ② Soil Resistivity testing. ② Construction Material testing. Antenna and Transmission Line: ② Install up to 3 antennas for the RF system.	No site by site list of items to be provided. Pricing sheets detail structural analysis and grounding improvement line items for each RF site except for Bronson.	All vendors claimed compliance with all installation items contained within the compliance matrix. Motorola provided the most information related to site and civil work. Motorola included, "install up to 3 antennas for the RF system". Motorola to clarify if the third antenna is for the multiband control station or if they are expecting diversity receive antennas. No related info found. Motorola reusing the Bronson generator at Gulf Hammock, CI proposed new generator. Motorola's site details list is missing the new shelter. Table provided in proposal did include new 12x16 shelter
Site Work Gulf Hammock (cont)		they make horizontal transition. Site Components: Install grounding at the site per the RFP and Motorola R56 Specifications. Miscellaneous Work: Remove existing antennas, lines and equipment from the current site once equipment and system cutover has been completed. For monitoring environmental. Repurpose existing Generator and ATS from Bronson site.,		

Site Work Inglis	Coordinate structural analysis with tower owner Install 2 antennas for the P25 system Supply and install side arms for all antenna and dish mounts. Install tower top amplifier. Install 1/2", 7/8"/ and 1 5/8" transmission line as required. Install grounding as required. Perform sweep test on transmission lines. Install 4 dishes and waveguide, ground, and align antennas. Supply and install all necessary grounding to meet the required specifications. Install P25, microwave, and DC equipment	Architectural & Engineering: ① Construction Drawings. ② Structural Analysis. ② Limited NEPA. ② Tower Mapping. ② Existing tower retrofit and blueprint for structural upgrade. ② Soil Resistivity testing. ② Construction Material testing. Antenna and Transmission Line: ② Install up to 3 antennas for the RF system. ② Supply and install side arms for antennas. ② Supply and install microwave dishes on tower as required. ② Install 1 tower-top amplifier. ② Install 1/2-inch transmission line as required. ② Install 1-1/4-inch transmission line as required. ② Install Wave Guide line as required for microwave. ② Perform sweep tests on transmission lines. ③ Supply and install 1 ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.	No site by site list of items to be provided. Pricing sheets detail structural analysis and grounding improvement line items for each RF site except for Bronson.	All vendors claimed compliance with all installation items contained within the compliance matrix. Motorola provided the most information related to site and civil work. Motorola included, "install up to 3 antennas for the RF system". Motorola to clarify if the third antenna is for the multiband control station or if they are expecting diversity receive antennas. No related info found.
Site Work Inglis (cont)		Site Components: Provide and Install new primary SAD/MOV surge protection. Provide and Install new secondary MOV surge protection. Upgrade internal grounding. Update interior lighting to meet requirements. Miscellaneous Work: Supply and install signage, Fire Extinguishers, and First Aid kit at the site in accordance with R56 Remove existing antennas, lines and equipment from the current site once equipment and system cutover has been completed. For monitoring environmental. Supply and install alarm sensors as required		
Site Work Williston		Architectural & Engineering: ① Construction Drawings. ② Structural Analysis. ② Limited NEPA. ② Tower Mapping. ② Existing tower retrofit and blueprint for structural upgrade. ② Soil Resistivity testing. ② Construction Material testing. Antenna and Transmission Line: ③ Install up to 3 antennas for the RF system. ② Supply and install side arms for antennas. ② Supply and install side arms for antennas. ② Supply and install microwave dishes on tower as required. ② Install 1 tower-top amplifier. ② Install 1/2-inch transmission line as required. ② Install 7/8-inch transmission line as required. ② Install 1-1/4-inch transmission line as required. ② Install Wave Guide line as required for microwave. ② Perform sweep tests on transmission lines. ③ Supply and install 1 ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition	No site by site list of items to be provided. Pricing sheets detail structural analysis and grounding improvement line items for each RF site except for Bronson.	All vendors claimed compliance with all installation items contained within the compliance matrix. Motorola provided the most information related to site and civil work. Motorola included, "install up to 3 antennas for the RF system". Motorola to clarify if the third antenna is for the multiband control station or if they are expecting diversity receive antennas. No related info found.
Site Work Williston (cont)		Site Components: ② Provide and Install new primary SAD/MOV surge protection. ② Provide and Install new secondary MOV surge protection. ② Upgrade internal grounding. ② Update interior lighting to meet requirements. Miscellaneous Work: ② Supply and install signage, Fire Extinguishers, and First Aid kit at the site in accordance with R56 ② Remove existing antennas, lines and equipment from the current site once equipment and system cutover has been completed. For monitoring environmental. ② Supply and install alarm sensors as required		

the Team Awareness Kit (TAK) mapping system. It was stated TAK is free for

was not a mandatory requirement of the proposals.

government use and would allow for the county to utilize its existing GIS system and

other mapping systems. GPS/AVL features were an option listed in the RFP. This service

included the hardware in their proposal for the GPX/AVL solution. Motorola and Ci

proposed the GPS/AVL feature as an option.

Middleware (IMW) service to provide presence and location information. Motorola

proposed the use of their enhanced data feature allowing for GPS information to be

sent at higher speeds above what is available using the P25 standard.

Smartphone/Broadband

device integration

Unit Location Interface

mapping application. The Status Aware server includes an API that can be used to

which has developed this mapping solution

integrate the system with 3rd party mapping providers. Ci listed LiveEarth as a partner

TABLE C.1 - TOTAL PRICE SUMMARY						
TABLE C.1 provides a summary of the Total Base Proposal Price. Enter sub	syste	m category totals from				
TABs C.2 - C.5		3 ,				
TABLE C.1.A - RADIO SYSTEM PRICE SUMMARY		Ci	Motorola		Williams	
System Equipment (TAB C.2)		Discounted Price		Discounted Price		Discounted Price
System Control Equipment, Software, and Licensing	\$	724,035.67	\$	626,020.70	\$	374,607.64
Simulcast & Voting Equipment, Software, and Licensing	\$	183,814.50	\$	485,925.60	\$	193,800.00
Radio Frequency (RF) Site Equipment, Software, and Licensing	\$	2,016,334.28	\$	1,692,049.32	\$	2,042,017.80
Network Management Equipment, Software, and Licensing	\$	58,833.05	\$	88,358.30	\$	125,454.07
Dispatch Equipment	\$	450,289.65	\$	599,257.77	\$	473,493.70
Microwave Backhaul System	\$	636,085.06	\$	950,880.78	\$	1,117,950.06
Other Equipment, Software, and Licensing	\$	1,353.75	\$	-	\$	174,198.44
Spare Equipment	\$	105,891.76	\$	-	\$	77,741.55
TOTAL EQUIPMENT PRICE	\$	4,176,637.70	\$	4,442,492.47	\$	4,579,263.27
System Services (TAB C.3)	ć	1 521 066 71	\$	928,196.62	\$	847,984.00
System Installation Services System Engineering Services	\$	1,531,066.71 400,999.00	\$	940,408.08	\$	289,810.00
, , ,	\$	327,976.00	\$	403,274.87	\$	184,800.00
Project Management System Training	\$	131,200.00	\$	57,227.27	\$	113,450.00
Warranty Services	ڔ	131,200.00	\$	-	\$	353,028.00
Performance Bond	\$	48,000.00	\$	65,607.00	\$	133,060.00
TOTAL SERVICES PRICE		2,439,241.71	\$	2,394,713.85	\$	1,922,132.00
Civil Development (TAB C.4)	7	2,433,241.71	7	2,334,713.03	7	1,322,132.00
Existing Site Improvements	\$	652,613.75	\$	1,110,807.60		
Greenfield Site Equipment	Ψ	002,0200	\$	-		
Greenfield Site Implementation Services			\$	-		
	\$	-	\$	-		
TOTAL CIVIL DEVELOPMENT PRICE		652,613.75	\$	1,110,807.60	\$	511,462.24
SYSTEM DISCOUNTS		,				•
Discount, If Applicable	\$	(2,264,051.85)	\$	(3,550,000.00)	Ś	(2,305,819.00)
Trade-in Value, If Applicable	,	(, - , ,	\$	(350,000.00)	Ÿ	(2)555)525155)
SYSTEM EQUIPMENT, SERVICES AND CIVIL DEVELOPMENT TOTAL	\$	5,004,441.31	\$	4,048,013.92	\$	4,707,038.51
TABLE C.1.B - SUBSCRIBER DEVICES PRICE SUMMARY						
TABLE C.I.D - SUBSCRIBER DEVICES PRICE SUIVINART						
Subscriber Equipment (TAB C.5)		Discounted Price		Discounted Price		Discounted Price
Portable Radios	\$	1,619,002.67		\$2,131,332.99	\$	1,839,865.00
Mobile Radios & Control Stations	\$	1,886,603.26		\$1,458,627.68	\$	2,393,195.71
Others	\$	67,205.70		\$151,210.84	\$	54,204.00
TOTAL SUBSCRIBER DEVICES PRICE	\$	3,572,811.62	\$	3,741,171.51	\$	4,287,264.72
Discount, If Applicable	\$	(1,112,889.64)				
SUBSCRIBER DEVICES DISCOUNTED PROPOSAL TOTAL	\$	2,459,921.98	\$	3,741,171.51	\$	4,287,264.72
TOTAL PROPOSAL PRIOR		7 404 000 00		7 700 407 40		0.004.000.00
TOTAL PROPOSAL PRICE	\$	7,464,363.29	\$	7,789,185.42	\$	8,994,303.22
PROPOSED LIFECYCLE SUPPORT (Year 4 - 10)	\$	2,502,285.04	\$	1,990,476.72	\$	2,048,244.15
10 Year TOTAL COST OF OWNERSHIP	\$	9,966,648.34	\$	9,779,662.14	\$	11,042,547.37
	l					

COST OPTIONS			
Ci detailed that a partnership with SLERS would result in cost savings. Items mentioned included using exchanging leased site costs to offset ongoing system maintenance e costs, SLERS covering software upgrades, system maintenance and NOC use. Ci also provided a letter from DMS where the State was open to this discussion.	TBD ?		
Motorola proposed a Shared core option. Levy County would not purchase a Master site and would utilize the Citrus County Master site.		\$ (639,351.95)	
The use of Citrus County's Master Site will require connectivity between the Levy simulcast cell and Citrus County. Motorola provided annual costs for leased connections.		\$ 40,821.22	
Motorola provided a costs savings if removing the Williston RF Site		\$ (759,119.95)	
Motorola provided a costs savings if increasing test tiles from 1/4 mile to 1/2 mile tiles.		\$ (255,883.64)	
Motorola cost for implementing 800 MHz Non-NPSPAC design with TSB-88 portable specifications		\$ 19,708.43	
Williams proposed that the State of Florida would pay for all of the County's site maintenance costs if the County allows for SLERS users to utilize the Levy sites. It was also stated that the State would expand the Levy County channel counts. Williams did not include a letter from the State and there was no detail provided on how the proposed savings were calculated.			\$ (2,401,272.15)

\$ 9,966,648.34 \$ 8,185,836.25 \$ 8,641,275.22