



# Proposal for Williamson County, TX

## Phase 1 MCC 7500 Console Expansion Project & Phase 2 Emergency Operations Center (EOC) Project August 27, 2010

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## Section 1. Phase 1 System Description

This proposal provides five MCC 7500 Dispatch Console Operator Positions for the Williamson County Emergency Communications Dispatch Center. These Op Positions will be installed in existing furniture and will utilize an existing UPS power system, existing backroom network equipment, and an existing ground system. The proposal does provide network and grounding wiring work to extend the necessary network connections and ground conductors to the Op Positions. An optional component to this proposal includes the electrical work necessary to extend the necessary AC circuits from the existing UPS to the Op Positions.

### 1.1 MCC 7500 Operator Positions

Each of the five Op Positions consists of:

- ◆ MCC 7500 Operator Position License.
- ◆ Workstation PC with.
  - MCC 7500 Dispatch Software Application.
  - IMBE Voice Card.
  - Secure Card with ADP Encryption.
  - 22" Flat Panel Monitor.
  - Keyboard.
  - Optical Mouse.
- ◆ General-Purpose Input/Output Module (GPIOM).
- ◆ Speakers for Select and Unselect Audio.
- ◆ Gooseneck Microphone.
- ◆ Headset Jacks.
- ◆ Headset Jack Bottoms (Headset Tops not included).
- ◆ Footswitch.
- ◆ Instant Recall Recording Software with Speakers.
  - Not configured for Dual IRR; only one channel, for Radio Select Audio, will be functional.

This equipment will be installed in the existing dispatch furniture as shown in the Floor Plan Diagram. Space is somewhat limited in this furniture, so all of the GPIOMs and the Op 15 Workstation PC will have to be installed on the desktops (as opposed to mounted inside the furniture). The monitors will be installed on the existing monitor trees.

## 1.2 Network Wiring

Each Op Position must be connected to one of the existing Network Switches in the equipment room. To accomplish this, a network patch panel will be installed in the existing equipment room network rack and eight CAT-5 connections will be run from this panel to network jack panels installed on the wall behind the existing dispatch furniture. This will provide the necessary network connections between the dispatch and equipment rooms. See the attached Floor Plan Diagram for additional information.

## 1.3 Grounding

Certain components of each Op Position must also be grounded to the same ground system as the UPS power system, backroom equipment, and existing Op Positions. To accomplish this, a Main Ground Bus (MGB) for the dispatch room will be mounted on the wall behind the dispatch furniture and connected to the existing MGB in the equipment room. Five Sub-System Ground Busses (SSGBs), one for each Op Position, mounted in the dispatch furniture, will be connected to this MGB for grounding the Op Position components. It is important to note that while these grounding components will allow the Motorola-installed equipment to be properly grounded, they do not provide complete R56 grounding for the dispatch room or its other components. See the attached Floor Plan Diagram for additional information.

## 1.4 Electrical

As an optional component, Motorola will install the electrical circuits necessary to power the Op Positions. The Op Positions will be powered by the existing UPS system in the “old” equipment room, which has an existing sub-panel with existing breakers. The electrical component then, consists of running five (5) 120VAC-20A circuits to the dispatch room, one for each of the Op Positions. Four of the circuits will be terminated on the wall behind the dispatch furniture, which the fifth circuit, for Op 11, will be terminated in the dispatch furniture. Additionally, in order to make room for the Op 11 Workstation PC in the dispatch furniture, two existing circuits will be relocated from one section of furniture to another, or, if agreed by Williamson County that they are unneeded, removed. See that attached Floor Plan Diagram for additional information.



The final component of the necessary electrical work is not included in the optional electrical work of this proposal because it involves the existing 911 equipment. The existing 120VAC-20A circuit outlet that powers the 911 equipment at Position 1 must be relocated to the center section of the dispatch furniture in order to make room for the Op 11 Workstation PC. This work must be completed by Williamson County in order for Motorola to complete the work in this proposal.

## 1.5 Acceptance Test

Acceptance of the Op Positions will be based on a Functional Acceptance Test Plan (FATP), which will verify the following functionality on each Op:

- ◆ Talkgroup Call.
  - Including both Select and Unselect Audio.
  - Including Transmit with Gooseneck Mic, Footswitch, and Mouse.
  - Including Alias Display.
- ◆ Multiselect Call.
- ◆ Patch Call.
- ◆ Conventional Call.
  - Including Channel Select.
- ◆ Paging.

Dual Headset Audio (911 and Radio).







## Section 2. Phase 2 System Description

This proposal provides for the relocation of fifteen existing MCC 7500 dispatch consoles and backroom equipment from the Sheriff's Office Dispatch Center to the new Williamson County Emergency Operations Center (EOC), the addition of seven new MCC 7500 Dispatch Consoles and backroom equipment, and the relocation of the existing microwave link-end at the Sheriff's Office (SO) to the EOC, forming a new microwave link from the EOC to the Prime Site.

### 2.1 VPM-Based MCC 7500 Dispatch Consoles

Each of the seven new MCC 7500 dispatch consoles consist of the following:

- ◆ One Voice Processing Module (VPM) with ADP Encryption.
- ◆ One Dispatch Console Workstation with MCC 7500 Elite Dispatch Software.
- ◆ One 22 inch Wide Format LCD Monitor.
- ◆ Two Desktop Speakers.
- ◆ One Gooseneck Microphone.
- ◆ Two Headset Jacks with Headset Bottoms.
- ◆ One Footswitch.
- ◆ One Instant Recall Recording (IRR) Software and Desktop Speakers.
  - Single-Channel, with capability to record Radio Select Audio only.
- ◆ One Keyboard.
- ◆ One Optical Mouse.

The seven new dispatch consoles will come equipped with the Voice Processing Module (VPM), the newest version of the General Purpose I/O Module (GPIOM) currently utilized by Williamson County's existing MCC 7500 dispatch consoles. The VPM differs from the GPIOM in that it now contains the voice and secure cards that used to be housed in the dispatch console workstation. This configuration allows greater freedom in the choice of a dispatch console workstation, as it does not have to support the unique requirements of the PCI-based voice and secure cards. It also makes the FireWire connection between the workstation and GPIOM obsolete, freeing the workstation to be separated by a greater distance from the VPM.

Each of the fifteen existing MCC 7500 dispatch consoles and the Archiving Interface Server (AIS) relocated to the EOC will be optionally priced to be upgraded from GPIOM-based to VPM-based operation. In the VPM option, each will receive the following:

- ♦ One Voice Processing Module (VPM) with ADP Encryption.

## 2.2 MCC 7500 Backroom Equipment

While Williamson County's existing MCC 7500 backroom equipment will be relocated to the EOC dispatch center, a subset of the required backroom equipment is also provided in this proposal to facilitate a cutover with minimal downtime. The backroom equipment provided in this proposal consists of the following:

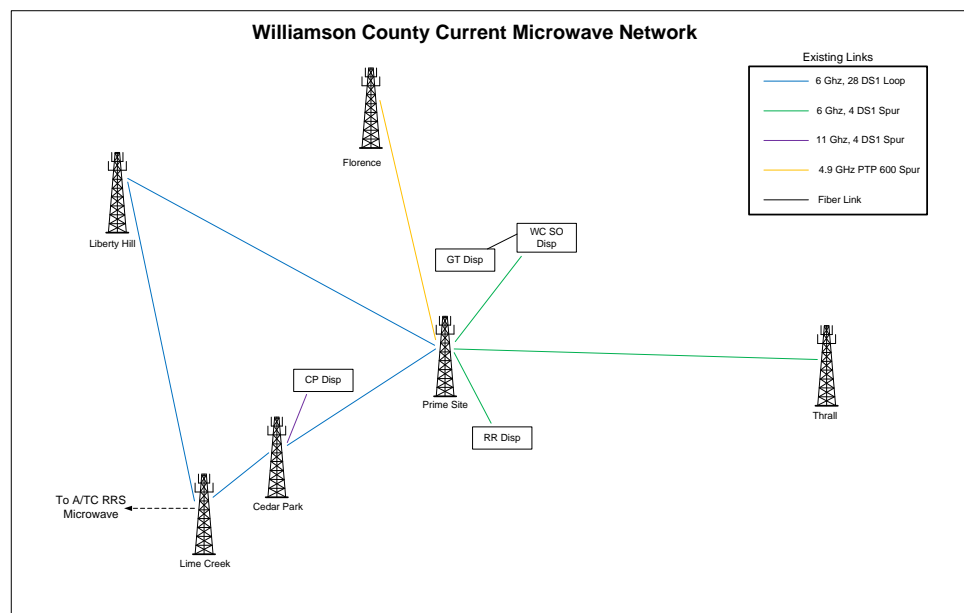
- ♦ One S6000 Site Router.
- ♦ Two Hewlett-Packard 2610-48 Ethernet Switches.
- ♦ Two Conventional Channel Gateways (CCGWs).
- ♦ One 4-Wire Daughter Card for Existing CCGW Chassis.
- ♦ One Conventional Site Controller.
- ♦ 12 800 MHz P25 Trunking Backup Consolettes.
- ♦ One 800 MHz 24-Port Control Station Combiner.
- ♦ One 800 MHz Control Station Antenna System.
  - 50 feet ½ inch Superflex.
  - 50 feet ½ inch LDF.
  - 10dB Yagi Antenna.
- ♦ Three VHF Conventional Consolettes.
- ♦ Three VHF Control Station Antenna Systems, each consisting of:
  - 50 feet ½ inch Superflex.
  - 50 feet ½ inch LDF.
  - 10dB Yagi Antenna.
- ♦ One UHF Conventional Consolette.
- ♦ One UHF Control Station Antenna System.
  - 50' ½" Superflex.
  - 50' ½" LDF.
  - 10dB Yagi Antenna.
- ♦ Spares.
  - One Hewlett-Packard 2610-48 Ethernet Switch.
  - One Voice Processing Module (VPM).
- ♦ Microwave Equipment.
  - 90 feet microwave waveguide.
  - One 6' Microwave Dish.



## 2.3 Microwave Link

The Microwave Networks, Inc. (MNI) 6GHz, 4-DS1 microwave link between the Prime Site and the SO will be reconfigured to form a new microwave link between the EOC and the Prime Site. The existing MNI microwave radio, dehydrator, and power system at the SO will be relocated to the EOC, and with the addition of a new antenna system, will form the EOC link-end. The existing MNI microwave link-end at the Prime Site will not be moved; the existing dish antenna will simply be redirected to face the EOC.

This microwave link will provide the EOC MCC 7500 Console Site Link as far as the Williamson County Prime Site. The EOC MCC 7500 Console Site Link will then connect to the existing Williamson County microwave loop system, which, at the Lime Creek site, cross-connects to the City of Austin/Travis County RRS microwave loop system, which ultimately connects to the Master Site. The City of Georgetown Primary MCC 7500 Console Site Link to the Master Site will be disrupted when Williamson County chooses to disconnect the existing microwave link (located in the existing Sheriff's Office equipment room) to the Prime Site during cutover. In order for Georgetown to re-establish the Primary MCC 7500 Console Site Link to the Master Site, Georgetown is responsible for providing connectivity and necessary transport equipment from the Georgetown Dispatch equipment room to the new EOC during and after cutover. The following microwave system diagrams show the current microwave network and the proposed microwave link and its placement in the existing microwave network for Williamson County.



### Figure 2-1: Williamson County Current Microwave Network



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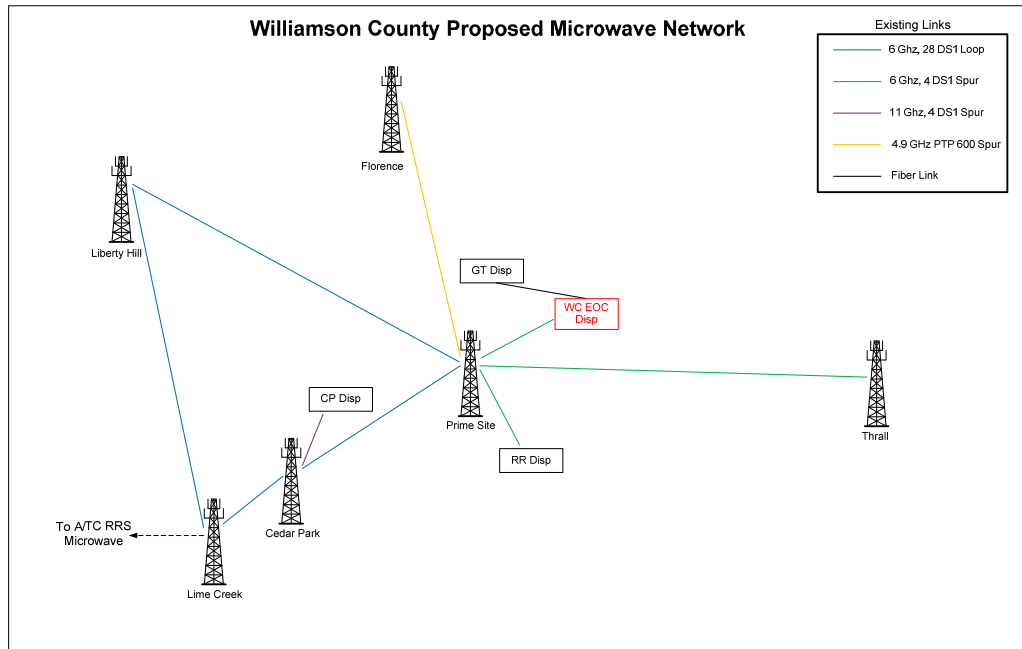


Figure 2-2: Williamson County Proposed Microwave Network

## 2.4 Relocation Strategy

The relocation of Williamson County's existing MCC 7500 Console Site to the EOC (the "cutover") requires careful planning to ensure minimal downtime. A preliminary overview of the cutover plan is given below. The final, detailed cutover plan will be defined in the Detailed Design Review (DDR), and is subject to change pending better understanding of the EOC building design, state of the radio system at that time, etc.

To facilitate minimal cutover downtime, an autonomous second Williamson County Console Site will be created at the EOC to function simultaneously with the Williamson County Console Site at the Sheriff's Office. To accomplish this, the Master Site will be provisioned for a new MCC 7500 Console Site, and the proper T1 connections will be established on the City of Austin/Travis County microwave system, the Williamson County microwave system, and by 2 leased T1s to the EOC. Upon completion of this phase, all necessary links to the Master Site will be available at the EOC. The existing Williamson County Console Site at the Sheriff's Office will be fully operational (both Primary and Backup links available) during this phase. This phase also assumes that the EOC is fully constructed and ready for equipment installation, including the EOC tower, and that Williamson County has installed a UPS with sufficient capacity for all equipment in this proposal.



The next phase will involve installing all new equipment provided in this proposal in the EOC equipment and dispatch rooms. During this phase, all seven dispatch consoles and all backroom equipment will be installed and connected to the microwave system installed in the previous phase. The existing Archiving Interface Server (AIS), MCC 7500 IP Logging Recorder, NICE Logging Recorder, Playback Station, and any other NICE-related equipment will be relocated to the EOC at this stage as well to facilitate talkgroup logging at the EOC during the cutover phase. The SO will continue to operate on the Higher Ground logging system during this time, so both the EOC and the SO will retain logging capability with at least one logging system (Higher Ground or AIS/NICE) throughout this project. The existing Aux I/O Server will also be relocated to the EOC during the initial equipment install, leaving the SO without output relay operation (door locks, etc.) from the dispatch consoles. This will be done to ensure output relay operation is working correctly at the EOC before dispatch operators are cut over. At completion of this phase, the EOC will have a functioning MCC 7500 Console Site, complete with backup consolettes and VHF and UHF paging consolettes. It is important to note that, while the EOC Console Site will be completely operational, it will not be operating with redundant Master Site links until the existing microwave link between the Prime Site and SO is moved to create the new microwave link between the Prime Site and EOC. The existing S6000 router located at the Sheriff's Office Console Site will also need to be removed and reinstalled at the EOC. Once this occurs, the SO will be operating without a redundant Master Site link and the EOC will be operating with a redundant Master Site link. If this is not acceptable, a second S6000 Site Router can be added to this proposal for an additional cost. A block diagram of both the EOC and the SO in this initial configuration is shown below in Figure 2-3.

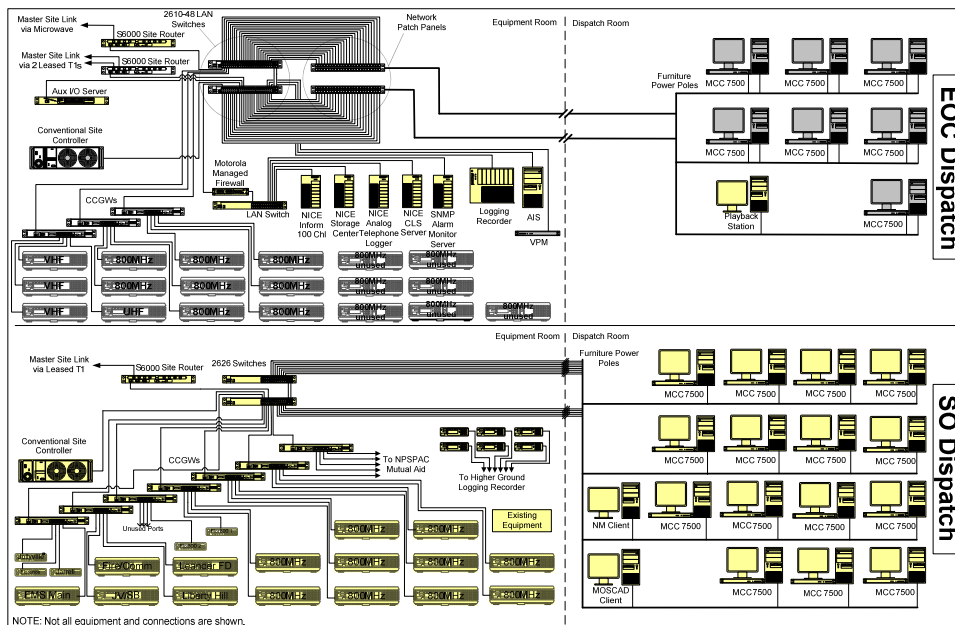


Figure 2-3: Relocation Strategy



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With the EOC MCC 7500 Console Site operational, the cutover of dispatch operators may begin. Most likely, the cutover will involve an additional shift of dispatch operators coming to the EOC to dispatch in parallel with the dispatch operators at the Sheriff's Office. This plan is dependent upon availability of 911 positions at each of the sites and other factors, and will be more clearly defined in the DDR. Once all dispatch responsibility has been shifted from the dispatch operators at the Sheriff's Office to the dispatch operators at the EOC, the following will be powered down, removed, and delivered to the EOC:

- ◆ 15 MCC 7500 Dispatch Consoles.
- ◆ Three Existing Racks of MCC 7500 Equipment.
- ◆ One Network Management Client.
- ◆ One MOSCAD Client.

All relocated equipment will then be reinstalled in the EOC. Once reinstallation of the relocated equipment is completed, the EOC MCC 7500 Console Site will be fully functional. The leased T1 line from the Master Site to SO can be removed as it will not be needed. A block diagram of the EOC MCC 7500 Console Site with all new and existing equipment installed is shown below in Figure 2-4. Relocated equipment (not provided in this proposal) is highlighted in yellow.

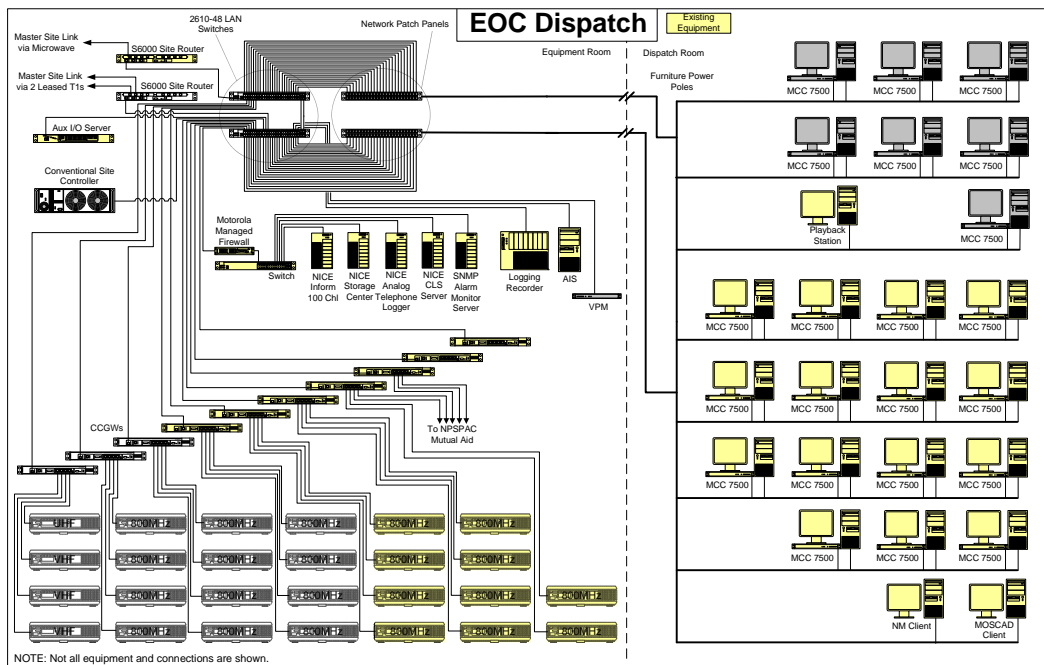


Figure 2-4: EOC MCC 7500 Console Site with all new and existing equipment installed.



The duplication of existing MCC 7500 backroom equipment is necessary to facilitate a cutover with minimal downtime. Once the cutover is complete, this duplicate equipment can function as spares for the radio system, and these spares are outlined below.

- ◆ One S6000 Router.
- ◆ One Conventional Site Controller.
- ◆ Two HP 2626 Network Switches.

## 2.5 Grade of Service Considerations

With the amount of additional equipment provided in this proposal for the Williamson County Console Site, a single T1 of bandwidth for the Console Site Link will not provide the same grade of service that is currently available. In this context, the grade of service available refers to the number of talkgroups and/or conventional resources that can be dispatched (transmitting or receiving) simultaneously. The number of available resources (trunking system talkgroups or conventional resources connected to CCGWs) is matched to the available Site Link bandwidth by a type of throttling call “Call Counts”. When the Console Site is configured in the system, Trunking (for trunking system talkgroups) and Conventional (for conventional resources connected to CCGWs) Call Counts are assigned according to the Console Site Link bandwidth available. These Call Counts define how many simultaneous talkgroup and conventional conversations may occur at the Console Site. When a call is requested that exceeds the defined Call Count, that call is busied. For example, if the Williamson County Dispatch Trunking Call Count was set to thirty-three and there were exactly thirty-three active talkgroup conversations taking place, the next requested talkgroup call would be busied by the system.

The existing Call Counts set for Williamson County Dispatch are almost at the maximum allowed for a single T1 of bandwidth. In order to maintain the current Grade of Service in the EOC, particularly with respect to Conventional Call Counts, both the Primary and Redundant Console Site Links must be increased to two T1s, and the equipment necessary to do so has been included in this proposal. For the Primary link, this involves adding additional microwave switching equipment to route the second T1 through the Williamson County and Austin/Travis County microwave systems. For the Secondary link, this involves Williamson County leasing an additional T1 (two total) between the EOC and the Master Site.





## 2.6 Design Caveats and Assumptions

The design presented in this proposal is dependent upon the following caveats:

- ◆ Williamson County is responsible for all civil work at the EOC, including but not limited to:
  - Building planning, construction, and build-out.
  - Tower planning and construction.
  - All needed cable transport mechanisms for all network and coaxial cable (e.g. conduit, raceways, j-hooks, wall penetrations, coaxial entry ports, power poles to dispatch furniture, etc.).
  - All grounding and surge suppression needed to conform to R56 standards
- ◆ Williamson County will provide and install a UPS with sufficient capacity for all equipment provided in this proposal.
- ◆ The dispatch tower will be designed with the proposed antenna systems in mind so that Motorola does not need to perform a tower analysis.
- ◆ Williamson County is responsible for the removal and disposal of the unused and leftover microwave equipment and microwave-related equipment at the Sheriff's Office.
- ◆ It is assumed that the proposed coaxial/waveguide cable lengths are sufficient for the final EOC building layout. If, when the EOC buildings plans are finalized, these lengths are not sufficient, a change order will be required.
- ◆ The VHF and UHF conventional control stations provided (three VHF, one UHF) will be sufficient to interoperate with all VHF and UHF systems required, and none of the existing VHF and UHF control stations at the SO will need to be relocated.
- ◆ Williamson County must lease two T1 circuits between the EOC and the Master Site.
- ◆ The City of Austin/Travis County grants permission to use two additional microwave system DS1s and four additional redundant Core Router ports for the Console Site Links.
- ◆ All relocated equipment is in proper working order.
- ◆ The City of Austin/Travis County RRS has been upgraded to System Release 7.7 or greater by the time this project begins.
- ◆ Williamson County accepts significant downtime of the following resources during the cutover period.
  - Aux I/O Server (door locks, etc. from the dispatch console).
  - NM Terminal.
  - MOSCAD Terminal.
- ◆ Williamson County accepts that the SO Site Link will be non-redundant during the cutover period.





- ♦ Williamson County assumes responsibility for notifying Georgetown that(1) the Georgetown Dispatch Site Link will be non-redundant during the cutover period as well, and (2) that Georgetown is responsible for re-establishing and completely connecting a fiber connection from the Georgetown Dispatch equipment room to the EOC equipment room, including providing and installing the necessary fiber converters, cables, etc.
- ♦ Williamson County will utilize an existing unused S2500 router that was purchased in a past project as one of the additional CCGWs.
- ♦ The 10 CCGWs at the Williamson County EOC have met the maximum number of CCGWs for a console site. If additional CCGWs would like to be used, a new console site would have to be created.
- ♦ There is no console furniture or furniture installation quoted in this proposal.

## 2.7 VHF Paging Station Addition

Williamson County has requested pricing for a single-site single-channel analog conventional VHF repeater for dispatch connectivity.

The repeater will utilize Williamson County's existing tower, shelter, and rack space at Cedar Park or Liberty Hill. The proposal will also utilize Williamson County's existing VHF conventional consolette located at the EOC dispatch to allow communication with the repeater site. This proposal does not include shelters, towers, UPS or generators.

### 2.7.1 System Overview

The proposed offering consists of a duplexed VHF repeater and a single antenna system with a 6dB gain omni-directional antenna installed at the repeater site.

An analog module for the existing site router has also been included at the VHF repeater site for backup connectivity to the repeater. Adding the analog module to the site router allows it to function as a CCGW (Conventional Channel Gateway).

### 2.7.2 Project Responsibilities and Assumptions

Motorola has based the system design on information gathered from meetings with Williamson County and an analysis of their existing system and requirements. All assumptions have been listed below for the County's review. Should Motorola's assumptions be deemed incorrect or not agreeable to Williamson County, a revised proposal with the necessary changes and adjusted costs will be required. Changes to the equipment or scope of the project after contract will require a change order.



This section outlines the assumptions and dependencies used in developing the proposed solution.

- ◆ This proposal does not include any shelters, towers, generators, UPS or other equipment or civil work not specifically outlined in the System Description or Statement of Work.
- ◆ The Williamson County EOC dispatch center is built and equipped with the VHF conventional consolette for this proposal.
- ◆ Cedar Park and Liberty Hill has existing rack space that is sufficient for the proposed equipment.
- ◆ Williamson County is responsible for providing adequate environmental controls to meet the Heating, Ventilation and Air Conditioning (HVAC) and humidity environments as defined in the Motorola document, Standards and Guidelines for Communication Sites (R56) at the existing dispatch and tower site locations. The exact HVAC loading requirements will be reviewed with the County at the Design Review.
- ◆ Motorola will perform R56 grounding audits at each site. Motorola will install and connect equipment per R56 standards.
- ◆ Motorola will not add additional network lines (Microwave or T1 links) but will instead utilize a control station to provide for dispatch connectivity.
- ◆ Any site/location upgrades or modifications are the responsibility of Williamson County.
- ◆ No coverage guarantee/commitment is provided.
- ◆ No subscriber template development is included as part of this proposal.
- ◆ Williamson County is responsible for all frequency procurement and FCC licensing of the VHF channel.
- ◆ Motorola has included a tower analysis for the Liberty Hill or Cedar Park repeater site depending on which site Williamson County chooses as well as the tower at Williamson County dispatch to determine the loading impact of the antenna systems. If any of the towers fail the loading and stress tests, it is Williamson County's responsibility to remediate the tower(s) before Motorola can install the antenna system(s).
- ◆ Approved local, State or Federal permits, as may be required for the installation and operation of the proposed equipment, are the responsibility of Williamson County.
- ◆ Any required system interconnections not specifically outlined here will be provided by the Williamson County. These may include dedicated phone circuits or microwave links.



## 2.7.3 Infrastructure System Description

At the chosen repeater site, Motorola will install one VHF QUANTAR with duplexer and triple circulator with antenna system. The radio equipment will be powered by Williamson County's existing UPS at the repeater site.

The new VHF paging repeater equipment will either be installed at Liberty Hill or Cedar Park based on Williamson County's preference.

A high level block diagram is shown below in Figure 2-5.

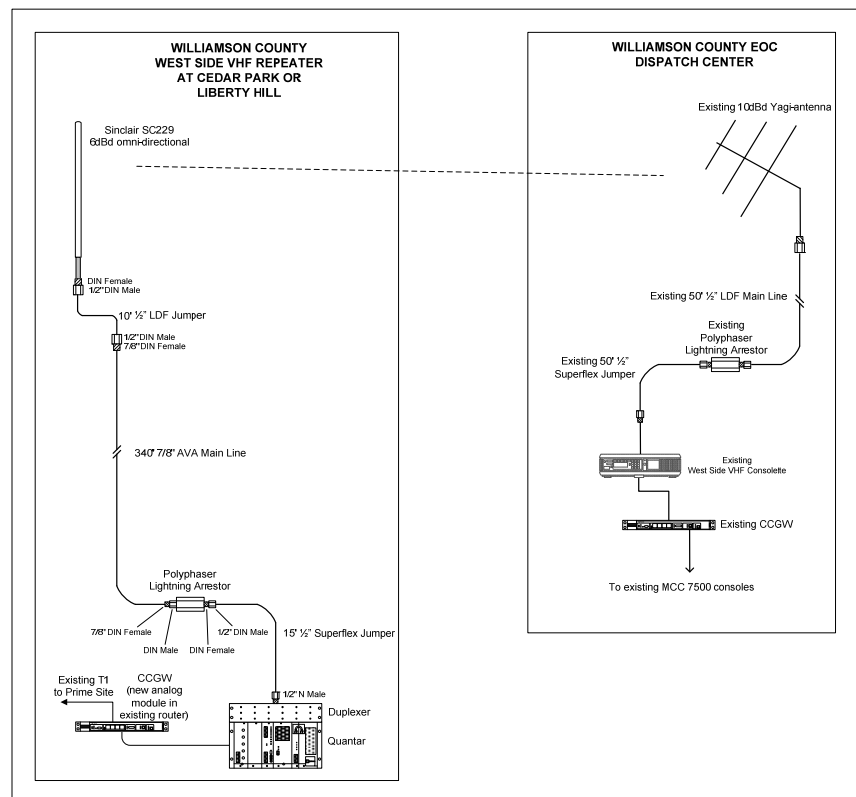


Figure 2-5: Infrastructure Overview



## 2.7.4 Repeater Site

The detailed design includes the following equipment at the repeater site:

- ♦ One 125 Watt VHF QUANTAR with duplexer and triple circulator.
- ♦ One S2500 Analog Module.
- ♦ One Sinclair 6dB gain omnidirectional antenna system.

Provisions have been included to interface the QUANTAR to the existing MOSCAD system.

Additionally as part of this proposal, Motorola will connect the previously installed East side repeater to the MOSCAD system.

## 2.7.5 Radio System Coverage

The radio system coverage is largely dependant upon the number of RF sites and their heights and locations. For this proposal, Williamson County provided Motorola with the location of its existing tower site as a preferred site location as opposed to Motorola choosing site locations based on designing for a specific coverage requirement. Motorola is not guaranteeing coverage as to the performance of the proposed repeater system with this proposal. Informational coverage maps for outbound coverage to an XTS portable have been provided for a tower site comparison analysis only, as the primary mobile subscriber in this system will be Minitor V pagers.

## 2.7.6 Acceptance Test Plan

A detailed acceptance test plan will be presented and reviewed with Williamson County during the Design Review. A high level acceptance test plan is presented below. This high-level plan is subject to change pending final review with Williamson County.

The proposed repeater system will be considered acceptable after successful completion of the following tests:

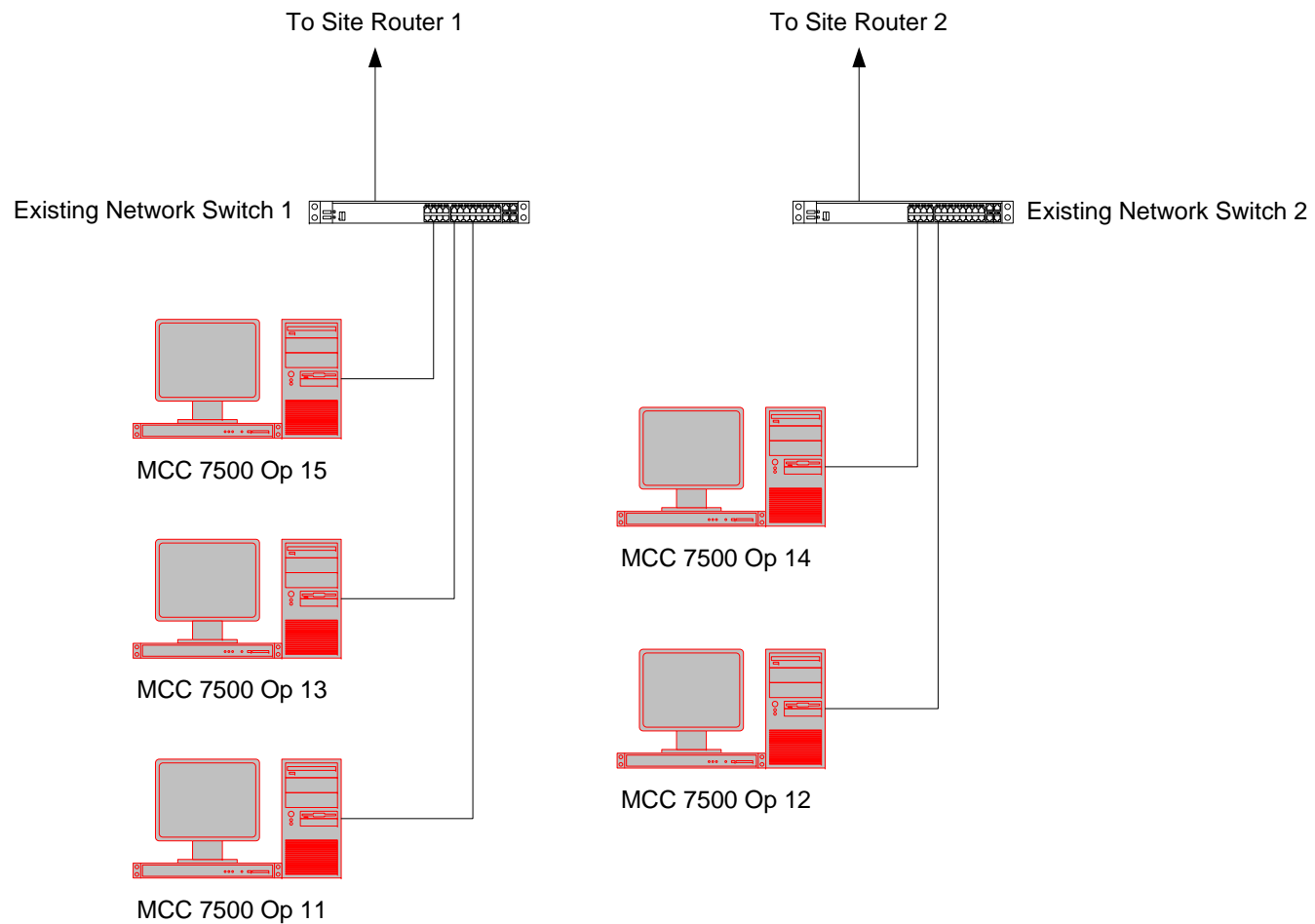
- ♦ Verification of optimization parameters such as repeater power out and antenna sweeps.
- ♦ Verification of QUANTAR alarming.
- ♦ Successful wire-line tone and voice page from an MCC 7500 console to a Minitor V pager in a known-good coverage area.





## Section 3. Phase 1 System Drawings

System Drawings are included on the following pages.



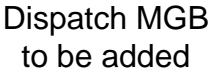
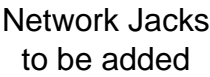
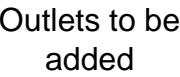
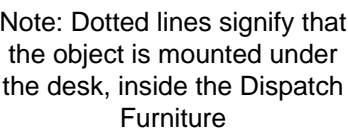
**MOTOROLA**

PROJECT: WILLIAMSON COUNTY  
5-OP EXPANSION

TITLE: BLOCK DIAGRAM, REV0

DESIGNED BY:  
KARL ARNDT

DATE:  
3 AUG 2010



Note: Dispatch SSGBs not shown, each should be mounted near the Op Position to which it is dedicated, and tied back to the Dispatch MGB with a #2



PROJECT: WILLIAMSON COUNTY  
5-OP EXPANSION

TITLE: FLOORPLAN DIAGRAM, REV1

DESIGNED BY:  
KARL ARNDT

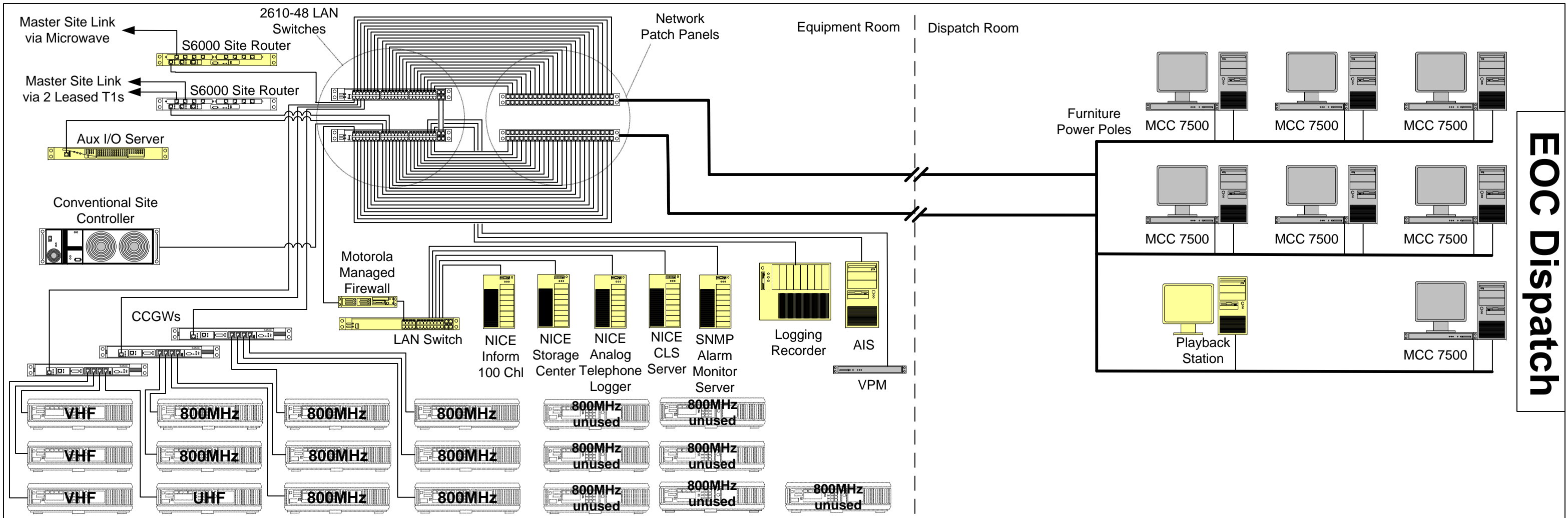
DATE:  
3 AUG 2010



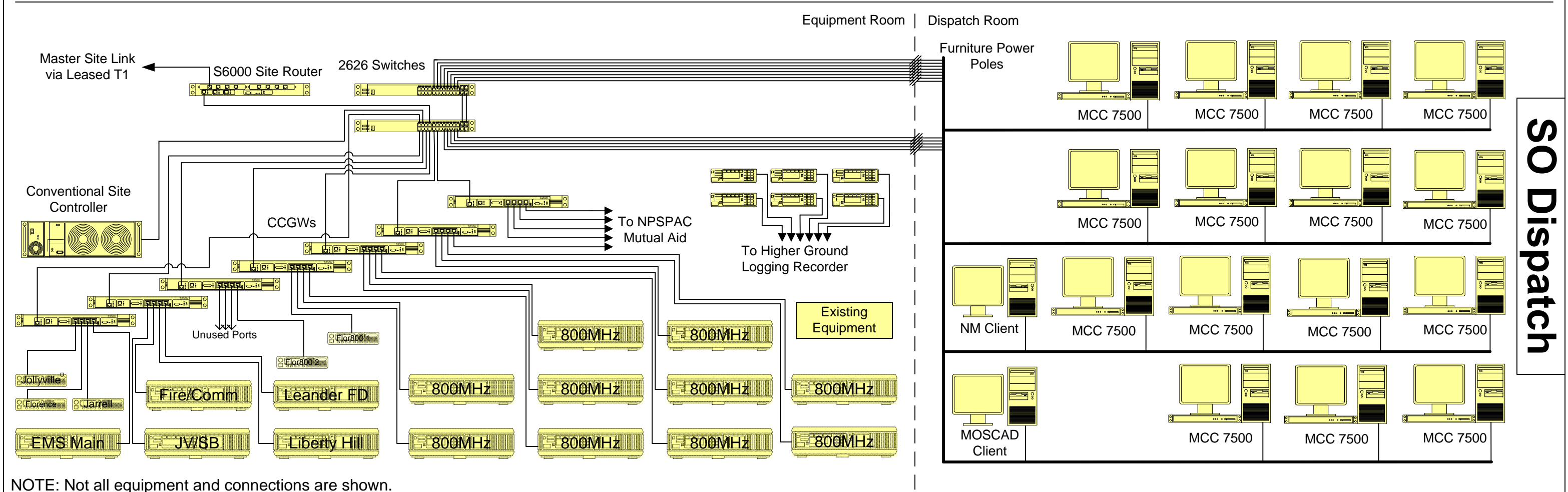
## Section 4. Phase 2 System Drawings and Coverage Maps

System Drawings and Coverage Maps are included on the following pages.





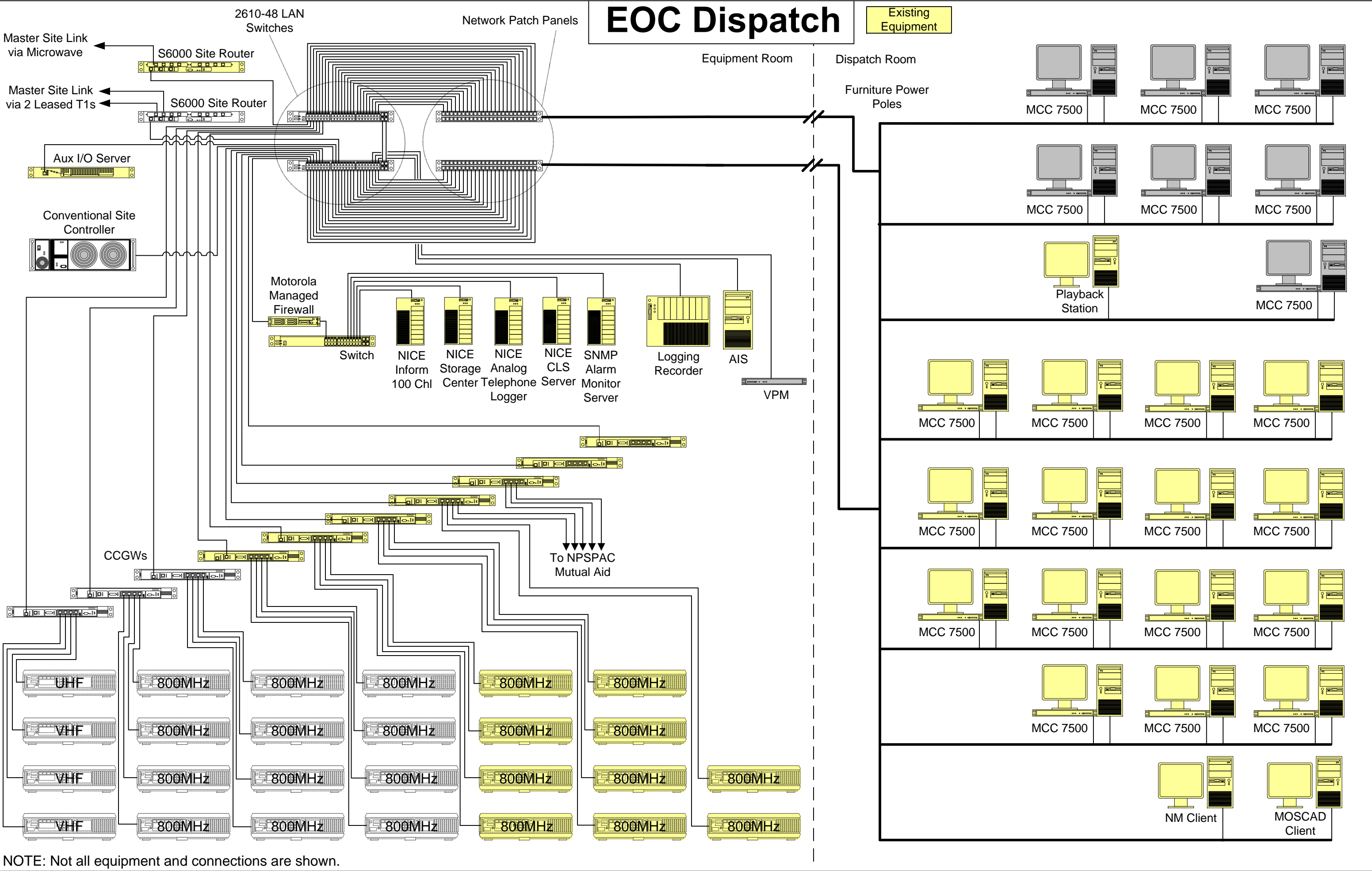
# EOC Dispatch



# SO Dispatch

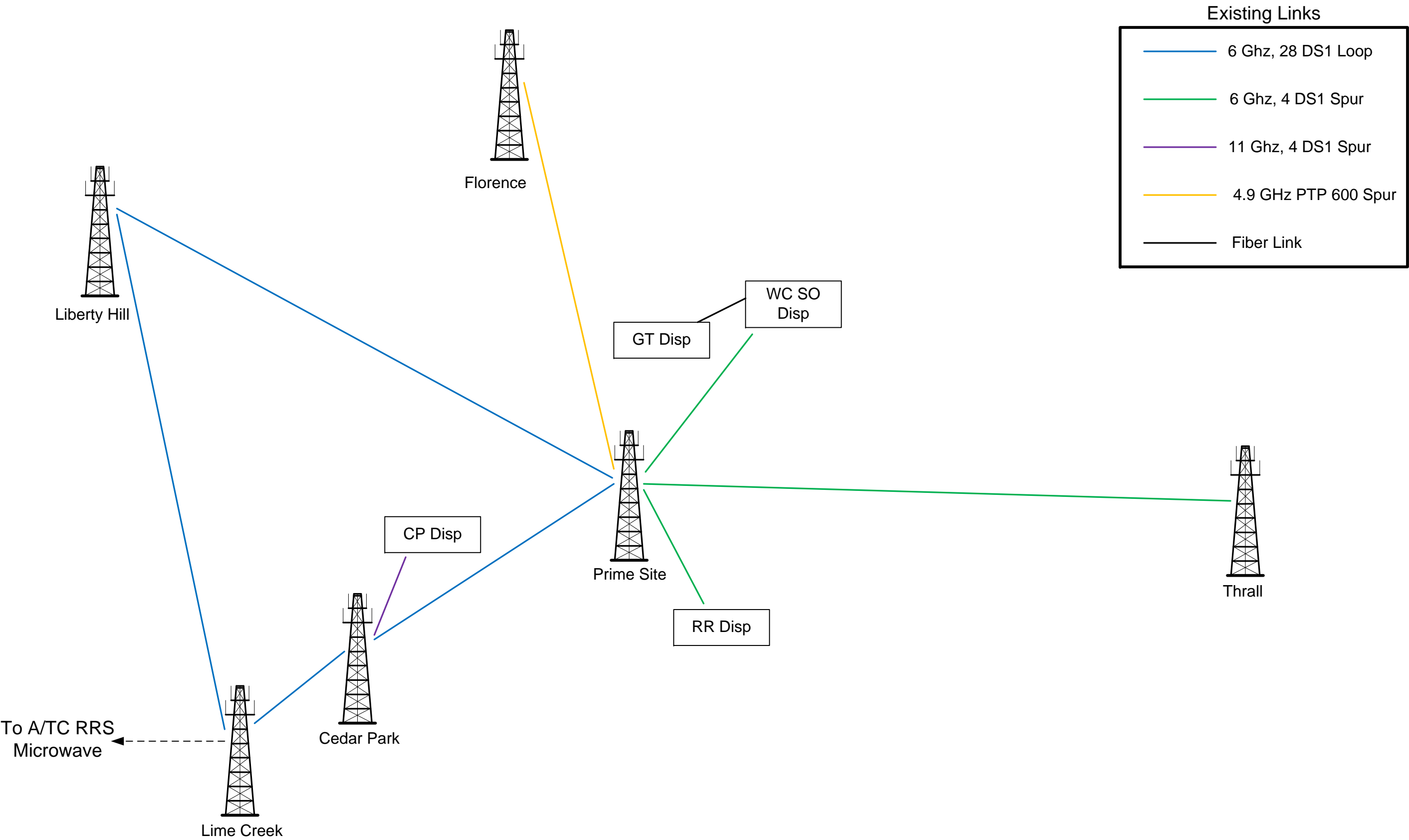
NOTE: Not all equipment and connections are shown.

# EOC Dispatch

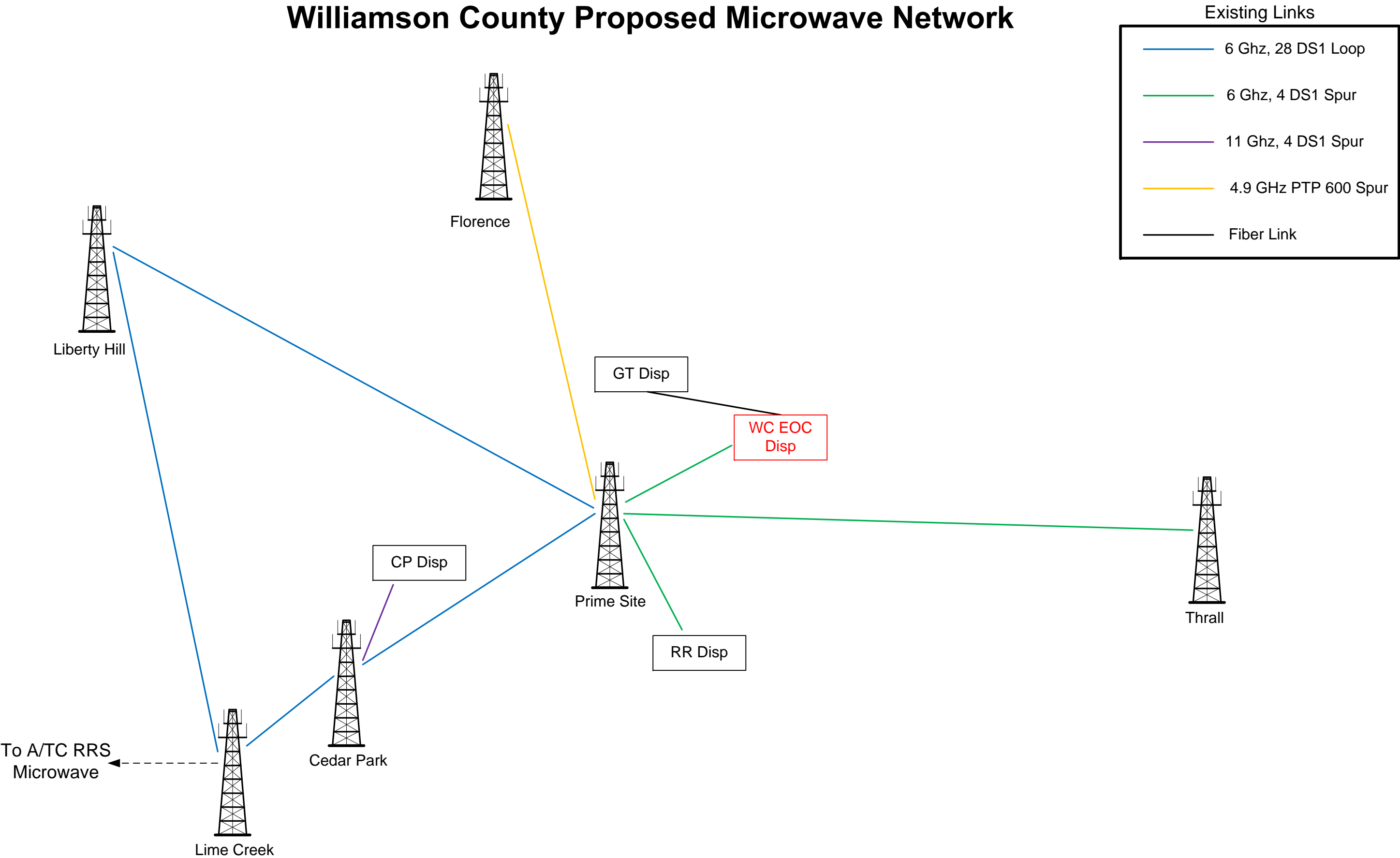


NOTE: Not all equipment and connections are shown.

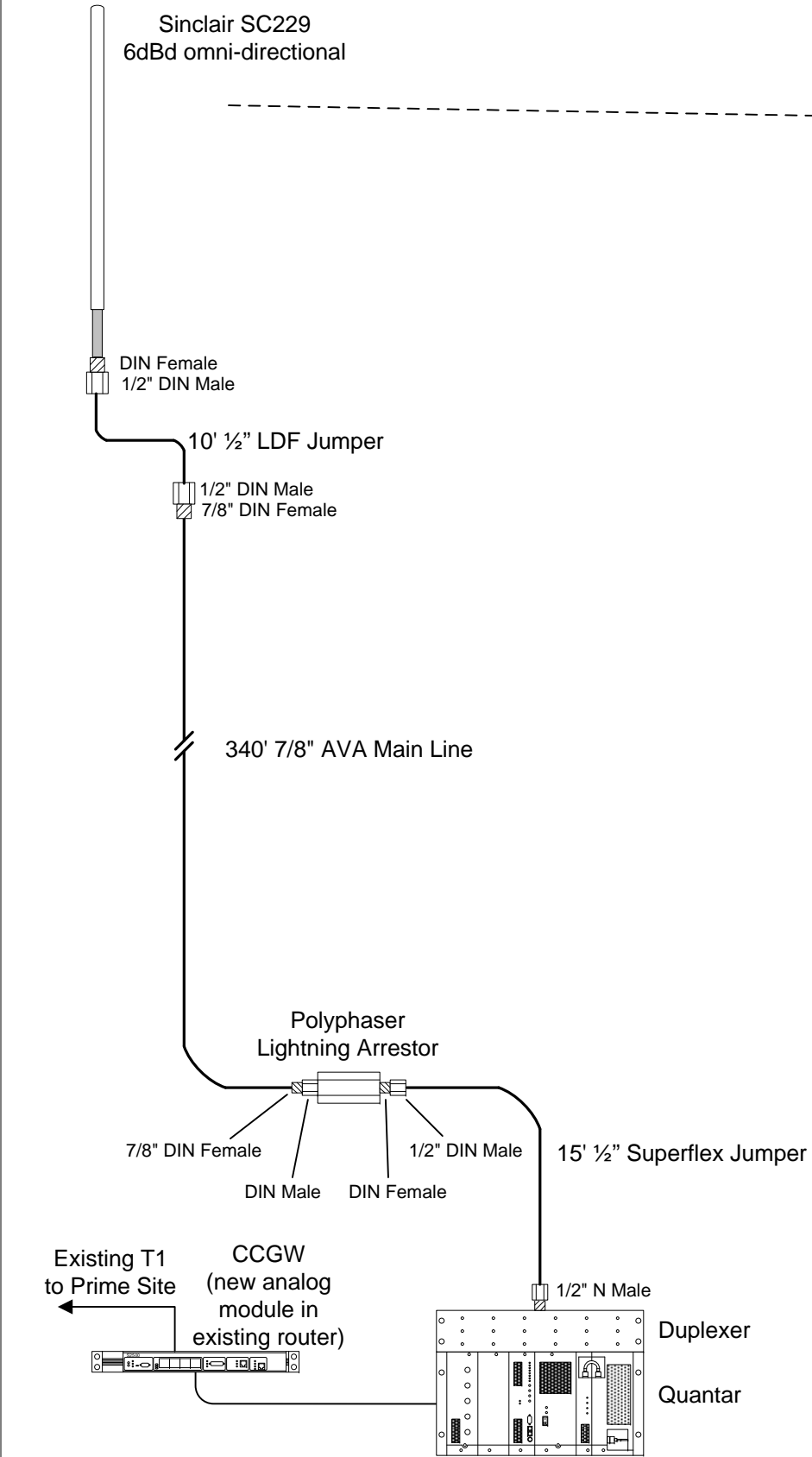
# Williamson County Current Microwave Network



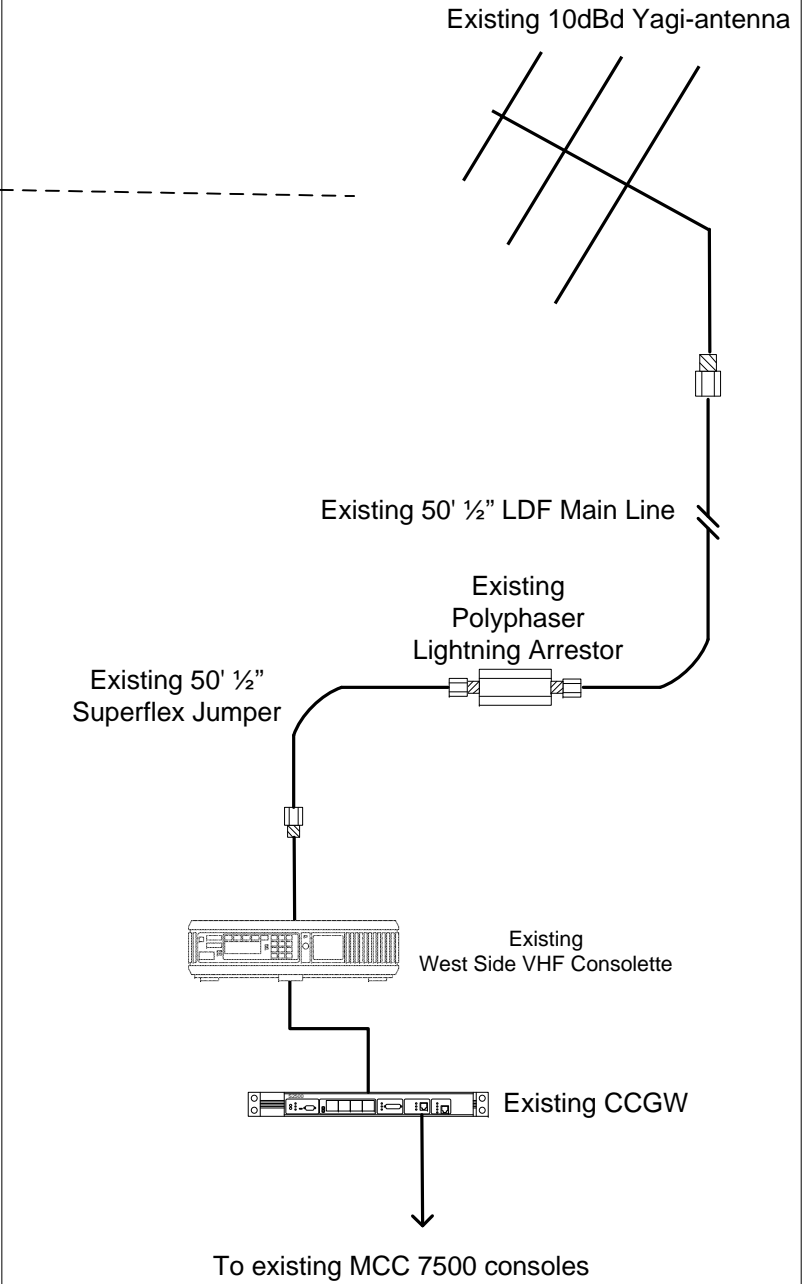
# Williamson County Proposed Microwave Network



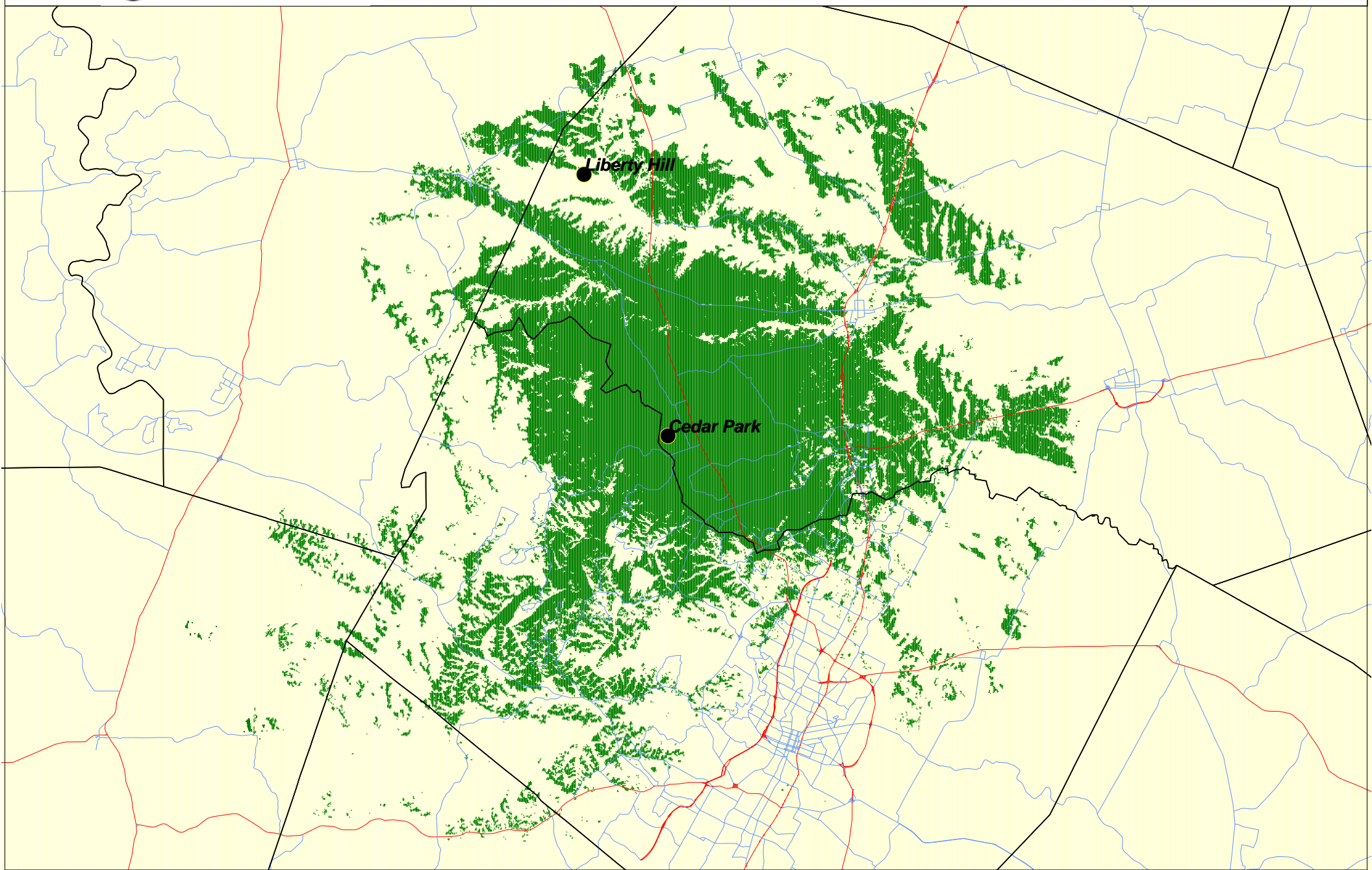
**WILLIAMSON COUNTY  
WEST SIDE VHF REPEATER  
AT CEDAR PARK OR  
LIBERTY HILL**



**WILLIAMSON COUNTY EOC  
DISPATCH CENTER**



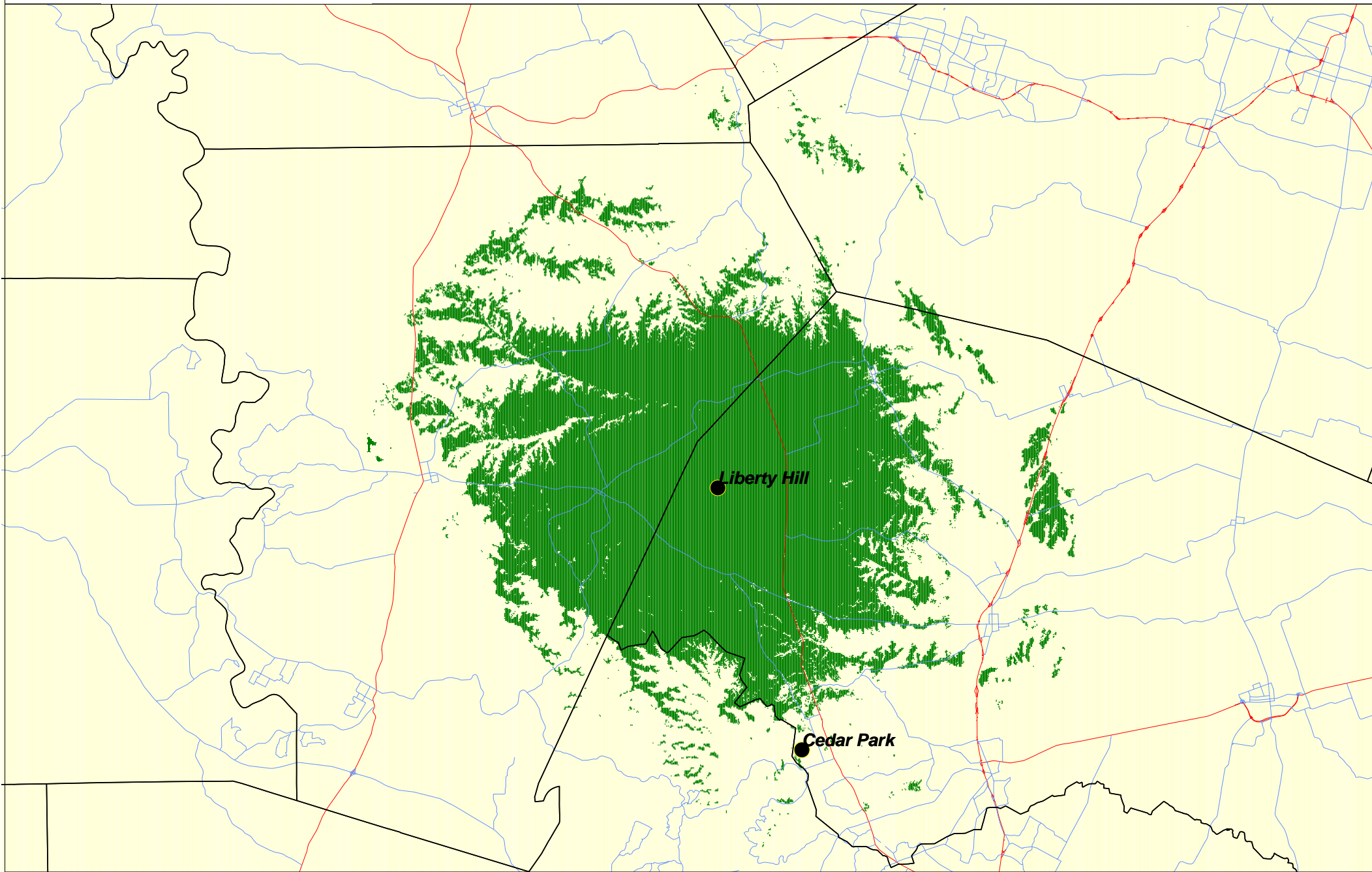




0 7.20 14.39 mi  
1 inch = 7.20 miles @ 1/455947

On-street Outbound Coverage using a XTS portable radio  
(modeled as a MINITOR V pager)

Projection World\_Mercator  
Center Point 30:30:44.37 N 97:50:37.3 W



0 7.20 14.39 mi  
1 inch = 7.20 miles @ 1/455947

On-street Outbound Coverage using a XTS portable radio  
(modeled as a MINITOR V pager)

Projection World\_Mercator  
Center Point 30:46:28.69 N 97:58:13.09 W



## Section 5. Phase 1 Equipment List

Qty	Nomenclature	Description
5	B1908	MCC 7500 ASTRO 25 SECURE DISPATCH CON
5	CA01221AA	ADD: MCC 7500 DISPATCH CONSOLE HIGH
5	CA00245AA	ADD: ADP ALGORITHM
5	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN
5	B1911	MCC 7500 GENERAL PURPOSE I/O MODULE
5	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN
10	B1912	MCC SERIES DESKTOP SPEAKER
10	B1913	MCC SERIES HEADSET JACK
5	B1914	MCC SERIES DESKTOP GOOSENECK MICROP
5	DSTWIN6328A	PROVIDES ONE DUAL PEDAL FOOTSWITCH
10	RLN6098	HDST MODULE BASE W/PTT, 15' CBL
10	DSVPR3MCC	PROTECTION MODULE FOR MCC 5500/5700
5	L3225A	CERTIFIED KEYBOARD FOR RSD SERVERS
5	L3226A	CERTIFIED OPTICAL WHEEL MOUSE FOR R
5	DS22WBLK	22" WIDE FORMAT LCD MONITOR BLACK,
5	DDN9617	SW BASED DUAL IRR USB HASP WITH LIC
5	CDN6673	CREATIVE LABS INSPIRE A60
5	DDN9607	SYMANTEC ANTI VIRUS 10.2.1 CORP ED
1	T7449	WINDOWS SUPPLEMENTAL TRANS CONFIG
1	SQM01SUM0186	A25 7.X MASTER SITE UPGRADE MODEL
1	CA00996AD	ADD: NM/ZC LICENSE KEY 7.5
1	CA00997AD	ADD: UCS LICENSE KEY 7.5
1	CA01209AD	ADD: ASTRO 25 IV&D SITE COUNT AFTER
1	CA01225AD	ADD: MCC 7500 CONSOLE LIC (QTY 5) CO
1	CA01225AB	ENH: MCC 7500 CONSOLE LICENSES (QTY
5	DS442460	1/4"X2"X10" GROUND BAR
1	DQUGBKIT2	GROUND BAR 1/4 X 2 1/2 X 12 1/2





## Section 6. Phase 2 Equipment List

### 6.1 Williamson County EOC

Site	Qty	Nomenclature	Description
MASTER_SIT	1	SQM01SUM0193	A25 7.X MASTER SITE UPGRADE MODEL
MASTER_SIT	1	CA00996AF	ADD: NM/ZC LICENSE KEY 7.7
MASTER_SIT	1	CA00997AF	ADD: UCS LICENSE KEY 7.7
MASTER_SIT	1	CA01225AD	ADD: MCC 7500 CONSOLE LIC (QTY 5) CO
MASTER_SIT	2	CA01225AB	ENH: MCC 7500 CONSOLE LICENSES (QTY
MCC 7500	2	CLN1839	2610-48 ETHERNET SWITCH
MCC 7500	1	ST6000	S6000 MNR MULTI-PROTOCOL ROUTER
MCC 7500	1	ST6010	S6000 4-PORT ULTRAWAN MODULE
MCC 7500	1	B1905	MCC 7500 ASTRO 25 SOFTWARE
MCC 7500	7	DDN9650	MCC 7500 WORKSTATION PC (FOR USE W
MCC 7500	7	DS22WBLK	22" WIDE FORMAT LCD MONITOR BLACK,
MCC 7500	7	L3225A	CERTIFIED KEYBOARD FOR RSD SERVERS
MCC 7500	7	L3226A	CERTIFIED OPTICAL WHEEL MOUSE FOR R
MCC 7500	7	DDN9607	SYMANTEC ANTI VIRUS 10.2.1 CORP ED
MCC 7500	7	T7449	WINDOWS SUPPLEMENTAL TRANS CONFIG
MCC 7500	21	DSSL	120VAC, 15AMP SIMPLEX NEMA 5-15 PL
MCC 7500	7	B1933	MOTOROLA VOICE PROCESSOR MODULE
MCC 7500	7	CA01221AB	ADD: MCC 7500 DISPATCH CONSOLE HIGH
MCC 7500	7	CA00147AF	ADD: MCC 7500 SECURE OPERATION
MCC 7500	7	CA00245AA	ADD: ADP ALGORITHM
MCC 7500	7	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN
MCC 7500	14	B1912	MCC SERIES DESKTOP SPEAKER
MCC 7500	7	B1914	MCC SERIES DESKTOP GOOSENECK MICROP
MCC 7500	14	B1913	MCC SERIES HEADSET JACK
MCC 7500	14	RLN6098	HDST MODULE BASE W/PTT, 15' CBL
MCC 7500	14	DSVPR3MCC	PROTECTION MODULE FOR MCC 5500/5700

Site	Qty	Nomenclature	Description
MCC 7500	7	DSTWIN6328A	PROVIDES ONE DUAL PEDAL FOOTSWITCH
MCC 7500	7	DDN9617	SW BASED DUAL IRR USB HASP WITH LIC
MCC 7500	7	CDN6673	CREATIVE LABS INSPIRE 245
MCC 7500	1	T7038	GCP 8000 SITE CONTROLLER
MCC 7500	1	CA00303AA	ADD: QTY (1) SITE CONTROLLER
MCC 7500	1	CA01136AA	ADD: MCC 7500 CONVEN SITE OPER
MCC 7500	1	X153AW	ADD: RACK MOUNT HARDWARE
CCGW	2	SQM01SUM0194	S2500 MULTIPROTOCOL WAN ROUTER
CCGW	2	CA01447AA	ADD: BASE ROUTER
CCGW	2	CA01441AA	ADD: ANALOG CCGW
CCGW	1	ST2513	S2500 ANALOG CONV TO IP IF KIT
OTHER	3	TRN7343	SEVEN AND A HALF FOOT RACK
OTHER	6	DSOP820B	POWER DIST. UNIT SURGE PROTECT 120V
OTHER	2	DSTSJ100BT	EIGHT WIRE PROTECTION MODULE WITH R
OTHER	1	DSTSJADP	HORIZONTAL RACK BUS BAR FOR TSJ AND
BKUP_CS	12	L20URS9PW1 N	10-35W 762-870MHZ XTL 5000 CONSOLE
BKUP_CS	12	G806	ENH: IMBE ASTRO DIGITAL CAI OP
BKUP_CS	12	G51	ENH: 3600 SMARTZONE OPERATION
BKUP_CS	12	G114	ENH: DIGITAL ID DISPLAY
BKUP_CS	12	G361	ENH: ASTRO PROJECT 25 TRUNKING SOFT
BKUP_CS	12	G80	ADD: W7 HW SETUP CONSOLE
BKUP_CS	12	L146	ADD: TONE REMOTE CONTROL XTL 5000
BKUP_CS	12	L73	DEL: MICROPHONE SPECTRA DESKTOP
BKUP_CS	12	G24	ENH: 2 YEAR REPAIR SERVICE ADVANTAG
BKUP_CS	12	G193	ADD: ADP SOFTWARE DSP BASED CRYPTO
BKUP_CS	12	TRN7466	MOUNTING BRACKET EIA 19 INCH
BKUP_CS	3	L20KSS9PW1 N	10-50W VHF 136-174MHZ XTL 5000 CONS
BKUP_CS	3	G241	ENH: SOFTWARE ASTRO READY ANALOG TE
BKUP_CS	3	G48	ENH: CONVENTIONAL OPERATION
BKUP_CS	3	G80	ADD: W7 HW SETUP CONSOLE
BKUP_CS	3	L146	ADD: TONE REMOTE CONTROL XTL 5000
BKUP_CS	3	G24	ENH: 2 YEAR REPAIR SERVICE ADVANTAG
BKUP_CS	3	TRN7466	MOUNTING BRACKET EIA 19 INCH
BKUP_CS	1	L20QSS9PW1 N	10-40W UHF R1 380-470MHZ XTL 5000 C
BKUP_CS	1	G241	ENH: SOFTWARE ASTRO READY ANALOG TE
BKUP_CS	1	G48	ENH: CONVENTIONAL OPERATION



Site	Qty	Nomenclature	Description
BKUP_CS	1	G80	ADD: W7 HW SETUP CONSOLETTTE
BKUP_CS	1	L146	ADD: TONE REMOTE CONTROL XTL 5000
BKUP_CS	1	G24	ENH: 2 YEAR REPAIR SERVICE ADVANTAG
BKUP_CS	1	TRN7466	MOUNTING BRACKET EIA 19 INCH
CS_800_RFD	1	DS43830124SH	SHORT-HAUL CONTROL STATION COMBINER
CS_ANT	50	L1702	CABLE: 1/2" SUPERFLEX POLY JKT PER
CS_ANT	2	CDN6579	1/2" TYPE N MALE PLATED CONNECTOR
CS_ANT	1	DSDSXLMA	DC BLOCK, HIGH POW 700 TO 2200MHZ,
CS_ANT	50	L1705	CABLE: 1/2" LDF HELIAX POLY JKT PE
CS_ANT	1	DDN9385	1/2" TYPE N FEMALE POSITIVE STOP CO
CS_ANT	1	DDN9386	1/2" TYPE N MALE POSITIVE STOP CONN
CS_ANT	1	TDF7611	ANTENNA YAGI 10DB 7 ELEMENT
CS_ANT	50	L1702	CABLE: 1/2" SUPERFLEX POLY JKT PER
CS_ANT	2	CDN6579	1/2" TYPE N MALE PLATED CONNECTOR
CS_ANT	1	DSISB50LNC1	COAX PROTECTOR
CS_ANT	50	L1705	CABLE: 1/2" LDF HELIAX POLY JKT PE
CS_ANT	1	DDN9385	1/2" TYPE N FEMALE POSITIVE STOP CO
CS_ANT	2	DDN9386	1/2" TYPE N MALE POSITIVE STOP CONN
CS_ANT	1	TDD7230	ANTENNA VHF YAGI 10.0 DB N FEMALE
CS_ANT	50	L1702	CABLE: 1/2" SUPERFLEX POLY JKT PER
CS_ANT	2	CDN6579	1/2" TYPE N MALE PLATED CONNECTOR
CS_ANT	1	DSISB50LNC1	COAX PROTECTOR
CS_ANT	50	L1705	CABLE: 1/2" LDF HELIAX POLY JKT PE
CS_ANT	1	DDN9385	1/2" TYPE N FEMALE POSITIVE STOP CO
CS_ANT	2	DDN9386	1/2" TYPE N MALE POSITIVE STOP CONN
CS_ANT	1	TDD7230	ANTENNA VHF YAGI 10.0 DB N FEMALE
CS_ANT	50	L1702	CABLE: 1/2" SUPERFLEX POLY JKT PER
CS_ANT	2	CDN6579	1/2" TYPE N MALE PLATED CONNECTOR
CS_ANT	1	DSISB50LNC1	COAX PROTECTOR
CS_ANT	50	L1705	CABLE: 1/2" LDF HELIAX POLY JKT PE
CS_ANT	1	DDN9385	1/2" TYPE N FEMALE POSITIVE STOP CO
CS_ANT	2	DDN9386	1/2" TYPE N MALE POSITIVE STOP CONN
CS_ANT	1	TDD7230	ANTENNA VHF YAGI 10.0 DB N FEMALE
CS_ANT	50	L1702	CABLE: 1/2" SUPERFLEX POLY JKT PER
CS_ANT	2	CDN6579	1/2" TYPE N MALE PLATED CONNECTOR
CS_ANT	1	DSISB50LNC1	COAX PROTECTOR



Site	Qty	Nomenclature	Description
CS_ANT	50	L1705	CABLE: 1/2" LDF HELIAX POLY JKT PE
CS_ANT	1	DDN9385	1/2" TYPE N FEMALE POSITIVE STOP CO
CS_ANT	1	DDN9386	1/2" TYPE N MALE POSITIVE STOP CONN
CS_ANT	1	DQDB436A	YAGI ANTENNA 10 DB 406 420 MHX
CS_ANT	5	TDN9289	CABLE WRAP WEATHERPROOFING
CS_ANT	7	DSSG1206B2A	1/2" SURE GROUND GROUNDING KIT
MICROWAVE	1	DQMWillMDISPAD	MICROWAVE QUOTE
MICROWAVE	4	DQ57021B	CXR LARUS CORP
SPARES	1	CLN1839	2610-48 ETHERNET SWITCH
SPARES	1	B1934	MCC 7500 VOICE PROCESSOR MODULE FRU
SPARES	1	CA00147AF	ADD: MCC 7500 SECURE OPERATION
SPARES	1	CA00245AA	ADD: ADP ALGORITHM
SPARES	1	1.01E+09	PWR SPLY 108W AC INP 12VDC OUT W18
SPARES	1	3082933N08	GR500 AC POWER CORD

## 6.2 VHF Cedar Park

Site	Qty	Nomenclature	Description
WEST_VHF	1	C99ED	QUANTAR/QUANTRO FAMILY MODEL
WEST_VHF	1	001C	QUANTAR STATION
WEST_VHF	1	X530	ADD: 125W QUANTAR, VHF (132-174MHZ)
WEST_VHF	1	X597 A	ENH: CONVENTIONAL ANALOG OPERATION
WEST_VHF	1	X580	ADD: REPEATER OPERATION
WEST_VHF	1	U752	ADD: POWER CORD, 12 FT AC, QTAR
WEST_VHF	1	X182	ADD: FACTORY INSTALLED DUPLEXER, VH
WEST_VHF	1	X676	ADD: CIRC, TRIPLE
WEST_VHF	1	X327	ALT: CIRCULATOR & DUPLEXER LOWER RA
WEST_VHF	1	X696	ADD: TRAY, PERIPHERAL FOR QUANTAR
WEST_VHF	1	X932	ADD: REPEATER ACC SAM
WEST_VHF	1	X288	ENH: REMOTE RSS COMPATIBILITY
WEST_VHF	1	X741	ALT: MODULAR RACK, 30";16 RACK UNIT
WEST_VHF	1	RVN4110	RSS SAM FIELD PROGRAMMER
WEST_VHF	1	ST2513	S2500 ANALOG CONV TO IP IF KIT
WEST_VHF	1	F4528	GMC_PER_DEVICE_SW_LICENSES
WEST_VHF	1	V801	GMC_SW_LIC_PER_MUT_AID_QUANTAR
WEST_VHF	1	F2463	RTU_PER_DEVICE_SW_LICENSES



Site	Qty	Nomenclature	Description
WEST_VHF	1	V832	RTU_SW_LIC_PER_MUT_AID_QUANTAR
EAST_VHF	1	F4528	GMC_PER_DEVICE_SW_LICENSES
EAST_VHF	1	V801	GMC_SW_LIC_PER_MUT_AID_QUANTAR
EAST_VHF	1	F2463	RTU_PER_DEVICE_SW_LICENSES
EAST_VHF	1	V832	RTU_SW_LIC_PER_MUT_AID_QUANTAR
WEST_ANT	1	DSSC229SFXLDF	LOW PIM COLLINEAR OMNI ANTENNA, 6
WEST_ANT	15	L1705	CABLE: 1/2" LDF HELIAX POLY JKT PE
WEST_ANT	1	TT05057AA	ADD: 1/2" 7-16 DIN MALE, POSITIVE S
WEST_ANT	1	TT04967AA	ADD: CONNECTOR ATTACHMENT LDF4 ANTE
WEST_ANT	1	TT05056AA	ADD: 1/2" 7-16 DIN MALE, POSITIVE S
WEST_ANT	2	TDN9289	CABLE WRAP WEATHERPROOFING
WEST_ANT	375	L3323	CABLE: 7/8" AVA HELIAX POLY JKT PER
WEST_ANT	1	TT05172AA	ADD: 7/8" 7-16 DIN FEMALE POSITIVE
WEST_ANT	1	TT04969AA	ADD: CONNECTOR ATTACHMENT FEE FOR A
WEST_ANT	1	DDN9496	7/8" 7-16 DIN FEMALE POSITIVE STO
WEST_ANT	7	TDN6674	5/8" - 7/8" CABLE GROUND CLAMP KIT
WEST_ANT	2	DSL5SGRIP	7/8" SUPPORT HOIST GRIP
WEST_ANT	13	MDN6817	7/8" CABLE HANGER STAINLESS, 10 PK
WEST_ANT	1	DS1050125AA	RF SURGE 100-512 MHZ MA DIN
WEST_ANT	20	L1702	CABLE: 1/2" SUPERFLEX POLY JKT PER
WEST_ANT	1	DSF4PDMV2C	1/2" 7-16 DIN MALE CONNECTOR
WEST_ANT	1	DSF4NRHC	1/2" TYPE N MALE RIGHT ANGLE CONNE
WEST_SPARE	1	HMN1001	MICROPHONE, LOCAL TEST, MOBILE, HT9
WEST_SPARE	1	TLN3254	FRU VHF 125W POWER AMP R2
WEST_SPARE	1	TLN3251	FRU VHF RANGE 2 RECEIVER
WEST_SPARE	1	TLN3253	FRU VHF RANGE 2 EXCITER
WEST_SPARE	1	CLN8480	FRU EPIC5 CNTL BD - CNV/6809/ATACRX
WEST_SPARE	1	TLN3259	FRU 625 W AC POWER SUPPLY



## 6.3 VHF Liberty Hill

Site	Qty	Nomenclature	Description
WEST_VHF	1	C99ED	QUANTAR/QUANTRO FAMILY MODEL
WEST_VHF	1	001C	QUANTAR STATION
WEST_VHF	1	X530	ADD: 125W QUANTAR, VHF (132-174MHZ)
WEST_VHF	1	X597 A	ENH: CONVENTIONAL ANALOG OPERATION
WEST_VHF	1	X580	ADD: REPEATER OPERATION
WEST_VHF	1	U752	ADD: POWER CORD, 12 FT AC, QTAR
WEST_VHF	1	X182	ADD: FACTORY INSTALLED DUPLEXER, VH
WEST_VHF	1	X676	ADD: CIRC, TRIPLE
WEST_VHF	1	X327	ALT: CIRCULATOR & DUPLEXER LOWER RA
WEST_VHF	1	X696	ADD: TRAY, PERIPHERAL FOR QUANTAR
WEST_VHF	1	X932	ADD: REPEATER ACC SAM
WEST_VHF	1	X288	ENH: REMOTE RSS COMPATIBILITY
WEST_VHF	1	X741	ALT: MODULAR RACK, 30";16 RACK UNIT
WEST_VHF	1	RVN4110	RSS SAM FIELD PROGRAMMER
WEST_VHF	1	ST2513	S2500 ANALOG CONV TO IP IF KIT
WEST_VHF	1	F4528	GMC_PER_DEVICE_SW_LICENSES
WEST_VHF	1	V801	GMC_SW_LIC_PER_MUT_AID_QUANTAR
WEST_VHF	1	F2463	RTU_PER_DEVICE_SW_LICENSES
WEST_VHF	1	V832	RTU_SW_LIC_PER_MUT_AID_QUANTAR
EAST_VHF	1	F4528	GMC_PER_DEVICE_SW_LICENSES
EAST_VHF	1	V801	GMC_SW_LIC_PER_MUT_AID_QUANTAR
EAST_VHF	1	F2463	RTU_PER_DEVICE_SW_LICENSES
EAST_VHF	1	V832	RTU_SW_LIC_PER_MUT_AID_QUANTAR
WEST_ANT	1	DSSC229SFXLDF	LOW PIM COLLINEAR OMNI ANTENNA, 6
WEST_ANT	15	L1705	CABLE: 1/2" LDF HELIAX POLY JKT PE
WEST_ANT	1	TT05057AA	ADD: 1/2" 7-16 DIN MALE, POSITIVE S
WEST_ANT	1	TT04967AA	ADD: CONNECTOR ATTACHMENT LDF4 ANTE
WEST_ANT	1	TT05056AA	ADD: 1/2" 7-16 DIN MALE, POSITIVE S
WEST_ANT	2	TDN9289	CABLE WRAP WEATHERPROOFING
WEST_ANT	375	L3323	CABLE: 7/8" AVA HELIAX POLY JKT PER
WEST_ANT	1	TT05172AA	ADD: 7/8" 7-16 DIN FEMALE POSITIVE
WEST_ANT	1	TT04969AA	ADD: CONNECTOR ATTACHMENT FEE FOR A
WEST_ANT	1	DDN9496	7/8" 7-16 DIN FEMALE POSITIVE STO



Site	Qty	Nomenclature	Description
WEST_ANT	7	TDN6674	5/8" - 7/8" CABLE GROUND CLAMP KIT
WEST_ANT	2	DSL5SGRIP	7/8" SUPPORT HOIST GRIP
WEST_ANT	13	MDN6817	7/8" CABLE HANGER STAINLESS, 10 PK
WEST_ANT	1	DS1050125AA	RF SURGE 100-512 MHZ MA DIN
WEST_ANT	20	L1702	CABLE: 1/2" SUPERFLEX POLY JKT PER
WEST_ANT	1	DSF4PDMV2C	1/2" 7-16 DIN MALE CONNECTOR
WEST_ANT	1	DSF4NRHC	1/2" TYPE N MALE RIGHT ANGLE CONNE
WEST_SPARE	1	HMN1001	MICROPHONE, LOCAL TEST, MOBILE, HT9
WEST_SPARE	1	TLN3254	FRU VHF 125W POWER AMP R2
WEST_SPARE	1	TLN3251	FRU VHF RANGE 2 RECEIVER
WEST_SPARE	1	TLN3253	FRU VHF RANGE 2 EXCITER
WEST_SPARE	1	CLN8480	FRU EPIC5 CNTL BD - CNV/6809/ATACRX
WEST_SPARE	1	TLN3259	FRU 625 W AC POWER SUPPLY

## 6.4 Williamson County EOC VPM Option

Site	Qty	Nomenclature	Description
VPM	15	B1934	MCC 7500 VOICE PROCESSOR MODULE FRU
VPM	15	CA00147AF	ADD: MCC 7500 SECURE OPERATION
VPM	15	CA00245AA	ADD: ADP ALGORITHM
VPM	1	B1934	MOTOROLA VOICE PROCESSOR MODULE
VPM	1	CA00147AF	ADD: MCC 7500 SECURE OPERATION
VPM	1	CA00245AA	ADD: ADP ALGORITHM
VPM	1	1.01E+09	PWR SPLY 108W AC INP 12VDC OUT W18
VPM	1	3082933N08	GR500 AC POWER CORD





## Section 7. Phase 1 Statement of Work

### 7.1 Contract

#### 7.1.1 Contract Award (Milestone)

Williamson County and Motorola execute the contract and both parties receive all the necessary documentation.

#### 7.1.2 Contract Administration

##### **Motorola Responsibilities**

- ◆ Assign a Project Manager, as the single point of contact with authority to make project decisions.
- ◆ Assign resources necessary for project implementation.
- ◆ Set up the project in the Motorola information system.
- ◆ Schedule the project kick-off meeting with Williamson County.

##### **Williamson County Responsibilities**

- ◆ Assign a Project Manager, as the single point of contact responsible for Williamson County signed approvals.
- ◆ Assign other resources necessary to ensure completion of project tasks for which Williamson County is responsible.

##### **Completion Criteria**

- ◆ Motorola internal processes are set up for project management.
- ◆ Both Motorola and Williamson County assign all required resources.
- ◆ Project kickoff meeting is scheduled.



### 7.1.3 Project Kickoff

#### Motorola Responsibilities

- ◆ Conduct a project kickoff meeting during the Contract Design Review (CDR) phase of the project.
- ◆ Ensure key project team participants attend the meeting.
- ◆ Introduce all project participants attending the meeting.
- ◆ Review the roles of the project participants to identify communication flows and decision-making authority between project participants.
- ◆ Review the overall project scope and objectives with Williamson County.
- ◆ Review the resource and scheduling requirements with Williamson County.
- ◆ Review the Project Schedule with Williamson County to address upcoming milestones and/or events.
- ◆ Review the teams' interactions (Motorola and Williamson County), meetings, reports, milestone acceptance, and Williamson County's participation in particular phases.

#### Williamson County Responsibilities

- ◆ Williamson County's key project team participants attend the meeting.
- ◆ Review Motorola and Williamson County responsibilities.

#### Completion Criteria

- ◆ Project kick-off meeting completed.
- ◆ Meeting notes identify the next action items.

## 7.2 Contract Design Review (CDR)

### 7.2.1 Review Contract Design

#### Motorola Responsibilities

- ◆ Meet with Williamson County project team.
- ◆ Review the operational requirements and the impact of those requirements on various equipment configurations.
- ◆ Establish a defined baseline for the system design and identify any special product requirements and their impact on system implementation.
- ◆ Review the System Design, Statement of Work, Project Schedule, and Acceptance Test Plans, and update the contract documents accordingly.
- ◆ Discuss the proposed Cutover Plan and methods to document a detailed procedure.



- ◆ Submit design documents to Williamson County for approval. These documents form the basis of the system, which Motorola will manufacture, assemble, and install.
- ◆ Prepare equipment layout plans for field install.
- ◆ Establish demarcation point (SUPPLIED BY THE MOTOROLA SYSTEM ENGINEER) to define the connection point between the Motorola-supplied equipment and Williamson County-supplied link(s) and external interfaces.
- ◆ Finalize development plan.
- ◆ Determine each site's ability to accommodate proposed equipment based upon physical capacity.
- ◆ If applicable, test existing equipment with which Motorola equipment will interface.
- ◆ Prepare Site Evaluation Report that summarizes findings of above-described site evaluations.

### Restrictions

- ◆ If, for any reason, any of the proposed site cannot be utilized due to reasons beyond Motorola's control, the costs associated with site changes or delays including, but not limited to, re-engineering, schedule delays, site abnormalities, re-mobilization, etc., will be paid for by Williamson County and documented through the change order process.

### Williamson County Responsibilities

- ◆ Williamson County's key project team participants attend the meeting.
- ◆ Make timely decisions, according to the Project Schedule.

### Completion Criteria

- ◆ Complete Design Documentation, which may include updated System Description, Equipment List, system drawings, or other documents applicable to the project.
- ◆ Incorporate any deviations from the proposed system into the contract documents accordingly.
- ◆ The system design is "frozen," in preparation for subsequent project phases such as Order Processing and Manufacturing.
- ◆ A Change Order is executed in accordance with all material changes resulting from the Design Review to the contract.

## 7.2.2 Design Approval (Milestone)

- ◆ Williamson County executes a Design Approval milestone document.



## 7.3 Order Processing

### 7.3.1 Process Equipment List

#### Motorola Responsibilities

- ♦ Validate Equipment List by checking for valid model numbers, versions, compatible options to main equipment, and delivery data.
- ♦ Enter order into Motorola's Order Fulfillment (COF) system.
- ♦ Create Ship Views, to confirm with Williamson County the secure storage location(s) to which the equipment will ship. Ship Views are the mailing labels that carry complete equipment shipping information, which direct the timing, method of shipment, and ship path for ultimate destination receipt.
- ♦ Create equipment orders.
- ♦ Reconcile the equipment list(s) to the Contract.
- ♦ Procure third-party equipment if applicable.

#### Williamson County Responsibilities

- ♦ Approve shipping location(s).
- ♦ Complete and provide Tax Certificate information verifying tax status of shipping location.

#### Completion Criteria

- ♦ Verify that the Equipment List contains the correct model numbers, version, options, and delivery data.
- ♦ Trial validation completed.
- ♦ Bridge the equipment order to the manufacturing facility.

## 7.4 Manufacturing

### 7.4.1 Manufacture Motorola Fixed Network Equipment

#### Motorola Responsibilities

- ♦ Manufacture the five MCC 7500 Consoles and associated equipment necessary for the system based on agreed upon design.

#### Williamson County Responsibilities

- ♦ None.



### **Completion Criteria**

- ◆ Consoles shipped to the field.

## **7.4.2 Ship Equipment to Field**

### **Motorola Responsibilities**

- ◆ Pack system for shipment to final destination.
- ◆ Arrange for shipment to the field.

### **Williamson County Responsibilities**

- ◆ None.

### **Completion Criteria**

- ◆ Equipment ready for shipment to the field.

## **7.5 System Installation**

### **7.5.1 Console Installation**

#### **Motorola Responsibilities**

Install five MCC 7500 Console Operator Positions consoles and associated equipment in the Williamson County Emergency Communications Dispatch Center:

- ◆ Each of the five MCC 7500 Op Positions consists of:
  - MCC 7500 Operator Position License.
  - Workstation PC with:
    - ◆ MCC 7500 Dispatch Software Application.
    - ◆ IMBE Voice Card.
    - ◆ Secure Card with ADP Encryption.
    - ◆ 22" Flat Panel Monitor.
    - ◆ Keyboard.
    - ◆ Optical Mouse.
- ◆ General-Purpose Input/Output Module (GPIOM).
- ◆ Speakers for Select and Unselect Audio.
- ◆ Gooseneck Microphone.
- ◆ Headset Jacks.
- ◆ Headset Jack Bottoms (Headset Tops not included).
- ◆ Footswitch.
- ◆ Instant Recall Recording Software with Speakers.



- Not configured for Dual IRR; only one channel, for Radio Select Audio, will be functional.
- ♦ Equipment will be install in existing dispatch furniture (see attached floor plan diagram).
- ♦ Due to space limitations, all of the GPIOMs and 15 Workstation PC's will be installed on the desktops in the existing monitor trees.
- ♦ Install network patch panel in the existing equipment room on Williamson County provided and already existing network rack. Eight CAT-5 connections will then be run from panel to network jack panels install in the wall behind dispatch furniture, (see attached floor plan diagram).
- ♦ Connect Williamson County-supplied, previously identified circuits into the console, to a demarcation point located within 25 feet of the console interface.
- ♦ Install/Mount a Main Ground Bus (MGB) on dispatch room wall.
- ♦ Connect the appropriate equipment to Williamson County supplied ground system in accordance with Motorola's R56 Site Installation Standards. This includes:
  - Mounting a Main Ground Bus (MSB) in the dispatch room wall behind the dispatch furniture to be connected to the existing MGB in the equipment room.
  - Mount five Sub-System Ground Busses (SSGBs) (one for each Op) in the dispatch furniture, which will be connected to the MGB for grounding the OP position components.
- ♦ Perform the console programming, based on the existing Williamson County console templates.
- ♦ Optional Electrical work: Motorola will install the necessary electrical circuits to power the Op Positions. The positions will be powered by existing UPS system in the "old" equipment room in the sub-panel. Motorola will run five 120VAC-20A circuits to the dispatch room where four of the circuits will terminate at the wall behind the dispatch equipment and the fifth circuit will terminate at the dispatch furniture for Op 11.

### Williamson County Responsibilities

- ♦ Provide demarcation point located within 25 feet of the console interface.
- ♦ Please refer to the attached floor plan Diagram for information required from Williamson County for grounding work to meet the R56 standards.
- ♦ If the optional electrical work component is not chosen, Williamson County is responsible for providing all aspects of that component (described in the System Description).
- ♦ Regardless if the optional electrical work is selected or not, Williamson County must relocate the existing 120VAC-20A circuit outlet that powers the 911 equipment at Position 1 to the center section of the dispatch furniture in order to make room for the Op 11 Workstation PC. This must be completed by Williamson County in order for Motorola to complete the work in this proposal.



- ♦ If both 911 and Radio audio are desired in the MCC 7500 headset, Williamson County is responsible for providing installed and functional ACU interface boxes that facilitate the connection.
- ♦ Williamson County is responsible for approving the attached Op Position mounting/placement plan; the existing dispatch furniture has limited space available for additional equipment, and a significant change in equipment placement may require a change order to this proposal.

### **Project Caveats**

- ♦ The existing UPS, subpanels, and breakers will be used to run the electrical circuits.
- ♦ The existing UPS, at the time of this proposal, has adequate capacity to support the proposed equipment; if WC adds a significant amount of equipment to this UPS before the proposed equipment is installed.
- ♦ The grounding work in this proposal will properly ground only the equipment installed by Motorola. This work does not constitute an exhaustive R56 treatment of the dispatch room, and aspects such as existing exposed conduit and existing equipment will most likely fail the final R56 audit done at the end of the project.
- ♦ This proposal assumes that no additional console configurations (.ELT files) will be created by Motorola; the Op Positions installed in this project will use the existing ELTs.
- ♦ No spares have been included in this proposal.

### **Completion Criteria**

- ♦ Console installation is complete.

## **7.5.2 Console Installation Complete**

- ♦ Console installation completed and accepted by Williamson County.

## **7.5.3 System Installation Acceptance (Milestone)**

- ♦ All equipment installations are completed and accepted by Williamson County.



## 7.6 System Optimization

### 7.6.1 Optimize System FNE

#### **Motorola Responsibilities**

- ◆ Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.
- ◆ Verify that all audio and data levels are at factory settings.
- ◆ Motorola and its subcontractors optimize consoles.
- ◆ Verify communication interfaces between devices for proper operation.
- ◆ Test features and functionality are in accordance with manufacturers' specifications and that they comply with the final configuration established during the CDR/system staging.
- ◆ Integrate the consoles into the system to ensure proper operation.
- ◆ Setup the consoles on the new radio system to perform the dispatching operation.

#### **Williamson County Responsibilities**

- ◆ Provide access/escort to the sites.
- ◆ Provide required radio ID and alias information to enable alias database setup for interface to console.
- ◆ Dispatchers to use the existing conventional system icons for dispatching until cutover.

#### **Completion Criteria**

- ◆ System optimization is complete.

### 7.6.2 Link Verification

#### **Motorola Responsibilities**

- ◆ Perform test to verify site link performance, prior to the interconnection of the Motorola-supplied equipment to the link equipment.

#### **Williamson County Responsibilities**

- ◆ Make available the required links which meet the specifications supplied by Motorola at the CDR.

#### **Completion Criteria**

- ◆ Link verification successfully completed.



### 7.6.3 Optimization Complete

- ◆ System optimization is completed. Motorola and Williamson County agree that the equipment is ready for acceptance testing.

## 7.7 Audit and Acceptance Testing

### 7.7.1 Perform R56 Audit

#### **Motorola Responsibilities**

- ◆ Perform R56 site-installation quality-audits, verifying proper physical installation and operational configurations.
- ◆ Create site evaluation report to verify site meets or exceeds requirements, as defined in Motorola's R 56 Standards and Guidelines for Communication Sites.

#### **Williamson County Responsibilities**

- ◆ Provide access/escort to the sites.
- ◆ Witness tests, (if desired).

#### **Completion Criteria**

- ◆ All R56 Standards and Guidelines for Communication Sites audits completed successfully.

### 7.7.2 Perform Equipment Testing

#### **Motorola Responsibilities**

- ◆ Test individual components of the system to verify compliance to the equipment specifications.
- ◆ Repeat any failed test(s) once Motorola (or Williamson County) has completed the corrective action(s).
- ◆ Prepare documentation of component tests to be delivered as part of the final documentation package.

#### **Williamson County Responsibilities**

- ◆ Witness tests if desired.

#### **Completion Criteria**

- ◆ Successful completion of equipment testing.





### 7.7.3 Perform Functional Testing

#### Motorola Responsibilities

- ♦ Verify the operational functionality and features of the individual subsystems and the system supplied by Motorola, as contracted.
- ♦ If any major task as contractually described fails, repeat that particular task after Motorola determines that corrective action has been taken.
- ♦ Document all issues that arise during the acceptance tests.
- ♦ Document the results of the acceptance tests and present to Williamson County for review.
- ♦ Resolve any minor task failures before Final System Acceptance.

#### Williamson County Responsibilities

- ♦ Witness the functional testing.

#### Completion Criteria

- ♦ Successful completion of the functional testing.
- ♦ Williamson County approval of the functional testing.

### 7.7.4 System Acceptance Test Procedures (Milestone)

- ♦ Williamson County approves the completion of all the required tests.

## 7.8 Finalize

### 7.8.1 Cutover

#### Motorola Responsibilities

- ♦ Motorola and Williamson County develop a mutually agreed upon cutover plan based upon discussions held during the CDR.
- ♦ During cutover, follow the written plan and implement the defined contingencies, as required.
- ♦ Conduct cutover meeting(s) with user group representatives to address both how to mitigate technical and communication problem impact to the users during cutover and during the general operation of the system.



### **Williamson County Responsibilities**

- ◆ Attend cutover meetings and approve the cutover plan.
- ◆ Notify the user group(s) affected by the cutover (date and time).
- ◆ Conduct a roll call of all users working during the cutover, in an organized and methodical manner.

### **Completion Criteria**

- ◆ Successful migration from the old system to the new system.

## **7.8.2 Resolve Punchlist**

### **Motorola Responsibilities**

- ◆ Work with Williamson County to resolve punchlist items, documented during the Acceptance Testing phase, in order to meet all the criteria for final system acceptance.

### **Williamson County Responsibilities**

- ◆ Assist Motorola with resolution of identified punchlist items by providing support, such as access to the sites, equipment and system, and approval of the resolved punchlist item(s).

### **Completion Criteria**

- ◆ All punchlist items resolved and approved by Williamson County.

## **7.8.3 Transition to Service/Project Transition Certificate**

### **Motorola Responsibilities**

- ◆ Review the items necessary for transitioning the project to warranty support and service.
- ◆ Provide a Williamson County Support Plan detailing the warranty and post warranty support, if applicable, associated with the Contract equipment.

### **Williamson County Responsibilities**

- ◆ Participate in the Transition Service/Project Transition Certificate (PTC) process.

### **Completion Criteria**

- ◆ All service information has been delivered and approved by Williamson County.



## 7.8.4 Finalize Documentation

### Motorola Responsibilities

Provide an electronic as-built system manual on a Compact Disk (CD). The documentation will include the following:

- ◆ Site Block Diagrams.
- ◆ Site Floor Plans.
- ◆ ATP Test Checklists.
- ◆ Functional Acceptance Test Plan test sheets and results.
- ◆ Equipment Inventory List.
- ◆ Console Programming Template.
- ◆ Maintenance Manuals.
- ◆ Technical Service Manuals.
- ◆ Drawings are created utilizing AutoCAD design software and will be delivered in Adobe PDF format. All other system manual documents converted from native format to Adobe PDF format to be included on the System Manual CD.
- ◆ Provide 2 console operator manuals at every dispatch center.

### Williamson County Responsibilities

- ◆ Receive and approve all documentation provided by Motorola.

### Completion Criteria

- ◆ All required documentation is provided and approved by Williamson County.

## 7.8.5 Final Acceptance (Milestone)

- ◆ All deliverables completed, as contractually required.
- ◆ Final System Acceptance received from Williamson County.

## 7.9 Project Administration

### 7.9.1 Project Status Meetings

#### Motorola Responsibilities

- ◆ Once a month, Motorola Project Manager, or designee, will attend all project status meetings with Williamson County, as determined during the CDR.
- ◆ Record the meeting minutes and supply the report.
- ◆ The agenda will include the following:
  - Overall project status compared to the Project Schedule.



- Product or service related issues that may affect the Project Schedule.
- Status of the action items and the responsibilities associated with them, in accordance with the Project Schedule.
- Any miscellaneous concerns of either Williamson County or Motorola.

#### **Williamson County Responsibilities**

- ◆ Attend meetings.
- ◆ Respond to issues in a timely manner.

#### **Completion Criteria**

- ◆ Completion of the meetings and submission of meeting minutes.

### **7.9.2 Progress Milestone Submittal**

#### **Motorola Responsibilities**

- ◆ Submit progress (non-payment) milestone completion certificate/documentation.

#### **Williamson County Responsibilities**

- ◆ Approve milestone, which will signify confirmation of completion of the work associated with the scheduled task.

#### **Completion Criteria**

- ◆ Williamson County approval of the Milestone Completion document(s).

### **7.9.3 Change Order Process**

CHANGE ORDERS. Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.





## Section 8. Phase 2 Statement of Work

### 8.1 Contract

#### 8.1.1 Contract Award (Milestone)

Williamson County and Motorola execute the contract and both parties receive all the necessary documentation.

#### 8.1.2 Contract Administration

##### **Motorola Responsibilities**

- ◆ Assign a Project Manager, as the single point of contact with authority to make project decisions.
- ◆ Assign resources necessary for project implementation.
- ◆ Set up the project in the Motorola information system.
- ◆ Schedule the project kick-off meeting with Williamson County.

##### **Williamson County Responsibilities**

- ◆ Assign a Project Manager, as the single point of contact responsible for Williamson County signed approvals.
- ◆ Assign other resources necessary to ensure completion of project tasks for which Williamson County is responsible.

##### **Completion Criteria**

- ◆ Motorola internal processes are set up for project management.
- ◆ Both Motorola and Williamson County assign all required resources.
- ◆ Project kickoff meeting is scheduled.

### 8.1.3 Project Kickoff

#### Motorola Responsibilities

- ◆ Conduct a project kickoff meeting during the Contract Design Review (CDR) phase of the project.
- ◆ Ensure key project team participants attend the meeting.
- ◆ Introduce all project participants attending the meeting.
- ◆ Review the roles of the project participants to identify communication flows and decision-making authority between project participants.
- ◆ Review the overall project scope and objectives with Williamson County.
- ◆ Review the resource and scheduling requirements with Williamson County.
- ◆ Review the Project Schedule with Williamson County to address upcoming milestones and/or events.
- ◆ Review the teams' interactions (Motorola and Williamson County), meetings, reports, milestone acceptance, and Williamson County's participation in particular phases.

#### Williamson County Responsibilities

- ◆ Williamson County's key project team participants attend the meeting.
- ◆ Review Motorola and Williamson County responsibilities.

#### Completion Criteria

- ◆ Project kick-off meeting completed.
- ◆ Meeting notes identify the next action items.

### 8.1.4 Contract Design Review (CDR)

### 8.1.5 Review Contract Design

#### Motorola Responsibilities

- ◆ Meet with Williamson County project team.
- ◆ Review the operational requirements and the impact of those requirements on various equipment configurations.
- ◆ Establish a defined baseline for the system design and identify any special product requirements and their impact on system implementation.
- ◆ Review the System Design, Statement of Work, Project Schedule, and Acceptance Test Plans, and update the contract documents accordingly.
- ◆ Discuss the proposed Cutover Plan and methods to document a detailed procedure.



- ◆ Submit design documents to Williamson County for approval. These documents form the basis of the system, which Motorola will manufacture, assemble, stage, and install.
- ◆ Prepare equipment layout plans for staging and the field install.
- ◆ Provide minimum acceptable performance specifications for microwave, fiber, or copper links.
- ◆ Establish demarcation point (SUPPLIED BY THE MOTOROLA SYSTEM ENGINEER) to define the connection point between the Motorola-supplied equipment and Williamson County-supplied link(s) and external interfaces.
- ◆ Finalize development plan.
  - Conduct (updated) site evaluations to capture site details of the system design and to determine site readiness.
  - Determine each site's ability to accommodate proposed equipment based upon physical capacity.
  - If applicable, test existing equipment with which Motorola equipment will interface.
- ◆ Prepare Site Evaluation Report that summarizes findings of above-described site evaluations.
- ◆ Work with Williamson County to identify radio interference between the new communication system and other existing radio systems.

### Restrictions

- ◆ Motorola assumes no liability or responsibility for inadequate frequency availability or frequency licensing issues.
- ◆ Motorola is not responsible for issues outside of its immediate control. Such issues include, but are not restricted to, improper frequency coordination by others and non-compliant operation of other radios.
- ◆ Motorola is not responsible for co-channel interference due to errors in frequency coordination by APCO or any other unlisted frequencies, or the improper design, installation, or operation of systems installed or operated by others.
- ◆ If, for any reason, any of the proposed sites cannot be utilized due to reasons beyond Motorola's control, the costs associated with site changes or delays including, but not limited to, re-engineering, schedule delays, site abnormalities, re-mobilization, etc., will be paid for by Williamson County and documented through the change order process.

### Williamson County Responsibilities

- ◆ Williamson County's key project team participants attend the meeting.
- ◆ Make timely decisions, according to the Project Schedule.
- ◆ Frequency Licensing and Interference:



- As mandated by FCC, Williamson County, as the licensee, has the ultimate responsibility for providing all required radio licensing or licensing modifications for the system prior to system staging. This responsibility includes paying for FCC licensing and frequency coordination fees.
- Provide the FCC “call sign” station identifier for each site prior to system staging.

### **Completion Criteria**

- ◆ Complete Design Documentation, which may include updated System Description, Equipment List, system drawings, or other documents applicable to the project.
- ◆ Incorporate any deviations from the proposed system into the contract documents accordingly.
- ◆ The system design is “frozen,” in preparation for subsequent project phases such as Order Processing and Manufacturing.
- ◆ A Change Order is executed in accordance with all material changes resulting from the Design Review to the contract.

## **8.1.6 Design Approval (Milestone)**

- ◆ Williamson County executes a Design Approval milestone document.

## **8.2 Order Processing**

### **8.2.1 Process Equipment List**

#### **Motorola Responsibilities**

- ◆ Validate Equipment List by checking for valid model numbers, versions, compatible options to main equipment, and delivery data.
- ◆ Enter order into Motorola’s Customer Order Fulfillment (COF) system.
- ◆ Create Ship Views, to confirm with Williamson County the secure storage location(s) to which the equipment will ship. Ship Views are the mailing labels that carry complete equipment shipping information, which direct the timing, method of shipment, and ship path for ultimate destination receipt.
- ◆ Create equipment orders.
- ◆ Reconcile the equipment list(s) to the Contract.
- ◆ Procure third-party equipment if applicable.





### **Williamson County Responsibilities**

- ♦ Approve shipping location(s).
- ♦ Complete and provide Tax Certificate information verifying tax status of shipping location.

### **Completion Criteria**

- ♦ Verify that the Equipment List contains the correct model numbers, version, options, and delivery data.
- ♦ Trial validation completed.
- ♦ Bridge the equipment order to the manufacturing facility.

## **8.3 Manufacturing and Staging**

### **8.3.1 Manufacture Motorola Fixed Network Equipment**

#### **Motorola Responsibilities**

- ♦ Manufacture the Fixed Network Equipment (FNE) necessary for the system based on equipment order.

#### **Williamson County Responsibilities**

- ♦ None.

#### **Completion Criteria**

- ♦ FNE shipped to either the field or the staging facility.

### **8.3.2 Manufacture Non-Motorola Equipment**

#### **Motorola Responsibilities**

- ♦ Manufacture (third party equipment suppliers) non-Motorola equipment necessary for the system based on equipment order.

#### **Williamson County Responsibilities**

- ♦ None.

#### **Completion Criteria**

- ♦ Ship non-Motorola manufactured equipment to the field and/or the staging facility.



### 8.3.3 Develop Templates

#### Motorola Responsibilities

- ◆ No new templates are proposed with this relocation project. The new MCC 7500 Dispatch consoles will receive the same templates as current consoles.

#### Williamson County Responsibilities

- ◆ Provide current templates used in MCC 7500 Dispatch consoles.

#### Completion Criteria

- ◆ Templates provided by Williamson County.

### 8.3.4 Ship to Staging (Milestone)

- ◆ Ship all equipment needed for staging to Motorola's factory staging facility (CCSi).

### 8.3.5 Stage System

#### Motorola Responsibilities

- ◆ Set up and rack the system equipment on a site-by-site basis, as it will be configured in the field at each of the transmitter/receiver sites.
- ◆ Cut and label cables according to the approved CDR documentation.
- ◆ Label the cables with to/from information to specify interconnection for field installation and future servicing needs.
- ◆ Complete the cabling/connecting of the subsystems to each other ("connectorization" of the subsystems.).
- ◆ Assemble required subsystems to assure system functionality.
- ◆ Power up, program, and test all staged equipment.
- ◆ Confirm system configuration and software compatibility to the existing system.
- ◆ Load application parameters on all equipment according to input from Systems Engineering.
- ◆ Complete programming of the Fixed Network Equipment.
- ◆ Inventory the equipment with serial numbers and installation references.
- ◆ Complete system documentation.
- ◆ Third party subsystems may be staged at the manufacturer's facilities and integrated in the field.
- ◆ Provide a Factory Acceptance Test Plan.



#### **Williamson County Responsibilities**

- ◆ Provide information on existing system interfaces as may be required.
- ◆ Provide information on room layouts or other information necessary for the assembly to meet field conditions.
- ◆ Review and approve proposed Factory Acceptance Test Plan.

#### **Completion Criteria**

- ◆ System staging completed and ready for testing.

### **8.3.6 Perform Staging Acceptance Test Procedure**

#### **Motorola Responsibilities**

- ◆ Test and validate system software and features.
- ◆ Functional testing of standard system features.
- ◆ Conduct site and system level testing.
- ◆ Power-up site equipment and perform standardized functionality tests.
- ◆ Perform system burn-in 24 hours a day during staging to isolate and capture any defects.
- ◆ Perform Williamson County-witnessed tests based upon Factory Acceptance Test Plan.

#### **Williamson County Responsibilities**

- ◆ None.

#### **Completion Criteria**

- ◆ Approve Factory Acceptance Testing.

### **8.3.7 Ship Equipment to Field**

#### **Motorola Responsibilities**

- ◆ Pack system for shipment to final destination.
- ◆ Arrange for shipment to the field.

#### **Williamson County Responsibilities**

- ◆ None.

#### **Completion Criteria**

- ◆ Equipment ready for shipment to the field.



### 8.3.8 CCSi Ship Acceptance (Milestone)

- ◆ All equipment shipped to the field.

## 8.4 Civil Work for Williamson County Provided Facilities

### Motorola Responsibilities

- ◆ Provide electrical requirements for each equipment rack to be installed in Williamson County EOC Building.
- ◆ Provide heat load for each equipment rack to be installed in Williamson County EOC Building.

### Williamson County Responsibilities

- ◆ Secure site lease/ownership, zoning, permits, regulatory approvals, easements, power, and Telco connections.
- ◆ Provide clear and stable access to the sites for transporting electronics and other materials. Sufficient site access must be available for trucks to deliver materials under their own power and for personnel to move materials to the facility without assistance from special equipment.
- ◆ Supply adequately sized electrical service, backup power (UPS, generator, batteries, etc.) including the installation of conduit, circuit breakers, outlets, etc., at each equipment location. Provide AC power (dedicated 20 Amp AC outlets - simplex with ground) for each major piece of equipment within 6 feet of the location of the Motorola-supplied equipment, including the associated electrical service and wiring (conduit, circuit breakers, etc.).
- ◆ Provide adequate HVAC, grounding, lighting, cable routing, and surge protection (also, among existing and Motorola-provided equipment) based upon Motorola's R56 Standards and Guidelines for Communication Sites. Ceiling (minimum 9 feet) and cable tray heights (minimum 8 feet) in the equipment rooms in order to accommodate 7-foot, 6-inch equipment racks.
- ◆ Provide floor space and desk space for the System equipment at Williamson County-provided facilities. Each rack shall be provided a minimum of 24-inch x 24-inch footprint with 36 inches clearance in the front and back.
- ◆ Relocate existing equipment, if needed, to provide required space for the installation of Motorola-supplied equipment.
- ◆ Bring grounding system up to Motorola's R56 Standards and Guidelines for Communication Sites and supply a single point system ground, of 5 ohms or less, to be used on all FNE supplied under the Contract. Supply grounding tie point within 10 feet from the Motorola-supplied equipment.
- ◆ Provide all necessary wall or roof penetrations on existing buildings for antenna coax and microwave waveguide (if applicable) for main transmitter antennas, microwave radios, and control station Yagi antennas.



- ◆ Provide obstruction-free area for the cable run between the demarcation point and the communications equipment.
- ◆ Resolve any environmental issues including, but not limited to, asbestos, structural integrity (rooftop, water tank, tower, etc.) of the site, and any other building risks. (Resolve environmental or hazardous material issues).
- ◆ Arrange for space on the tower for installation of new antennas at the proposed heights.
- ◆ Perform structural analysis of existing tower and rooftops as required to confirm that the structure is capable of supporting proposed and future antenna loads.
- ◆ Supply all permits as contractually required.
- ◆ Supply interior building cable trays, raceways, conduits, and wire supports.
- ◆ Supply engineering and drafting as required for modifications to existing building drawings for site construction.
- ◆ Pay for usage costs of power and generator fueling, both during the construction and installation effort, and on an ongoing basis.
- ◆ Complete all Williamson County deliverables in accordance within the approved project schedule.

#### **Completion Criteria**

- ◆ All sites are ready for equipment installations in compliance with Motorola's R56 Standards and Guidelines for Communication Sites.

## **8.5 System Installation**

Re-location and Re-Install equipment from the Sheriff's Office Dispatch Center to the new Williamson County EOC Building.

#### **Motorola Responsibilities**

- ◆ Re-locate and install system equipment as specified by the Equipment List, System Description, and system drawings.

#### **Interference**

Motorola is not responsible for interference caused or received by the Motorola provided equipment except for interference that is directly caused by the Motorola provided transmitter(s) to the Motorola provided receiver(s). Should the Williamson County system experience interference, Motorola can be contracted to investigate the source and recommend solutions to mitigate the issue.

- ◆ Will provide storage location for the Motorola-provided equipment.
- ◆ Receive and inventory all equipment.
- ◆ Bond the supplied equipment to the site ground system in accordance with the Motorola R56 Standards and Guidelines for Communication Sites.



- ♦ Will not remove existing equipment or re-locate existing equipment to a location designated by Williamson County other than what is included in this proposal and detailed in the system description.
- ♦ Will not dispose of any existing equipment.

#### **Williamson County Responsibilities**

- ♦ Provide access to the sites, as necessary.

#### **Completion Criteria**

- ♦ Fixed Network Equipment installation completed and ready for optimization.

### **8.5.1 Fixed Network Equipment Installation Complete**

- ♦ All fixed network equipment installed and accepted by Williamson County.

### **8.5.2 Microwave Link Installation**

#### **Motorola Responsibilities**

- ♦ Reconfigure the 6GHz, 4-DS1 microwave link between the Prime Site and SO to form a new microwave link between the EOC and Prime Site.
- ♦ Relocate the existing MNI microwave radio, dehydrator, and power system from the SO to the new EOC building. Install a new antenna at new EOC.
- ♦ Note, the existing MNI microwave linked-end at the Prime Site will not be moved, the existing dish antenna will be redirected to face the new EOC building.

#### **Williamson County Responsibilities**

- ♦ Provide access to the sites, as necessary.

### **8.5.3 Console Installation**

#### **Motorola Responsibilities**

- ♦ Install seven new MCC 7500 dispatch consoles and fifteen consoles relocated from the SO the space provided by Williamson County.
- ♦ Connect Williamson County-supplied, previously identified circuits into the console, to a demarcation point located within 25 feet of the console interface.
- ♦ Terminate the audio outputs for the logged talkgroups onto a punchblock, and then terminate these outputs into the logging recorder.
- ♦ Install a dedicated Local Area Network (LAN) at each dispatch center to connect the proposed console positions.



- ◆ Connect the appropriate equipment to Williamson County supplied ground system in accordance with Motorola's R56 Site Installation Standards.
- ◆ Perform the console programming, based on the console templates designed during the fleetmapping process.
- ◆ For consoles not located at the master site, additional network link resources will be required, as identified in the network diagram provided by Motorola.

#### **Williamson County Responsibilities**

- ◆ Provide demarcation point located within 25 feet of the console interface.

#### **Completion Criteria**

- ◆ Console installation is complete.

### **8.5.4 Console Installation Complete**

- ◆ Console installation completed and accepted by Williamson County.

### **8.5.5 System Installation Acceptance (Milestone)**

- ◆ All equipment installations are completed and accepted by Williamson County.

## **8.6 System Optimization**

### **8.6.1 Optimize System FNE**

#### **Motorola Responsibilities**

- ◆ Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.
- ◆ Verify that all audio and data levels are at factory settings.
- ◆ Check forward and reflected power for all radio equipment, after connection to the antenna systems, to verify that power is within tolerances.
- ◆ Motorola and its subcontractors optimize each subsystem.
- ◆ Check audio and data levels to verify factory settings.
- ◆ Verify communication interfaces between devices for proper operation.
- ◆ Test features and functionality are in accordance with manufacturers' specifications and that they comply with the final configuration established during the CDR/system staging.
- ◆ Setup the consoles on the radio system to perform the dispatching operation.



### **Williamson County Responsibilities**

- ◆ Provide access/escort to the sites.
- ◆ Define the logging recorder tracks by talkgroup.
- ◆ Provide required radio ID and alias information to enable alias database setup for interface to console.
- ◆ Dispatchers to use the existing conventional system icons for dispatching until cutover.

### **Completion Criteria**

- ◆ System FNE optimization is complete.

## **8.6.2 Link Verification**

### **Motorola Responsibilities**

- ◆ Perform test to verify site link performance, prior to the interconnection of the Motorola-supplied equipment to the link equipment.

### **Williamson County Responsibilities**

- ◆ Make available the required links which meet the specifications supplied by Motorola at the CDR.

### **Completion Criteria**

- ◆ Link verification successfully completed.

## **8.6.3 Optimization Complete**

- ◆ System optimization is completed. Motorola and Williamson County agree that the equipment is ready for acceptance testing.

## **8.7 Training**

- ◆ Training is not included.





## 8.8 Audit and Acceptance Testing

### 8.8.1 Perform R56 Audit

#### **Motorola Responsibilities**

- ◆ Perform R56 site-installation quality-audits, verifying proper physical installation and operational configurations.
- ◆ Create site evaluation report to verify site meets or exceeds requirements, as defined in Motorola's R 56 Standards and Guidelines for Communication Sites.

#### **Williamson County Responsibilities**

- ◆ Provide access/escort to the sites.
- ◆ Witness tests.

#### **Completion Criteria**

- ◆ All R56 Standards and Guidelines for Communication Sites audits completed successfully.

### 8.8.2 Perform Equipment Testing

#### **Motorola Responsibilities**

- ◆ Test individual components of the system to verify compliance to the equipment specifications.
- ◆ Repeat any failed test(s) once Motorola (or Williamson County) has completed the corrective action(s).
- ◆ Prepare documentation of component tests to be delivered as part of the final documentation package.

#### **Williamson County Responsibilities**

- ◆ Witness tests if desired.

#### **Completion Criteria**

- ◆ Successful completion of equipment testing.



### 8.8.3 Perform Functional Testing

#### Motorola Responsibilities

- ♦ Verify the operational functionality and features of the individual subsystems and the system supplied by Motorola, as contracted.
- ♦ If any major task as contractually described fails, repeat that particular task after Motorola determines that corrective action has been taken.
- ♦ Document all issues that arise during the acceptance tests.
- ♦ Document the results of the acceptance tests and present to Williamson County for review.
- ♦ Resolve any minor task failures before Final System Acceptance.

#### Williamson County Responsibilities

- ♦ Witness the functional testing.

#### Completion Criteria

- ♦ Successful completion of the functional testing.
- ♦ Williamson County approval of the functional testing.

### 8.8.4 System Acceptance Test Procedures (Milestone)

- ♦ Williamson County approves the completion of all the required tests.

## 8.9 Finalize

### 8.9.1 Cutover

#### Motorola Responsibilities

- ♦ Motorola and Williamson County develop a mutually agreed upon cutover plan based upon discussions held during the CDR.
- ♦ During cutover, follow the written plan and implement the defined contingencies, as required.
- ♦ Conduct cutover meeting(s) with user group representatives to address both how to mitigate technical and communication problem impact to the users during cutover and during the general operation of the system.



### **Williamson County Responsibilities**

- ◆ Attend cutover meetings and approve the cutover plan.
- ◆ Notify the user group(s) affected by the cutover (date and time).
- ◆ Conduct a roll call of all users working during the cutover, in an organized and methodical manner.
- ◆ Ensure that all Subscriber users are trained and the Subscribers have been activated on the system.
- ◆ Provide Motorola with the subscriber information for input into the system database, for activation.

### **Completion Criteria**

- ◆ Successful migration from the old system to the new system.

## **8.9.2 Resolve Punchlist**

### **Motorola Responsibilities**

- ◆ Work with Williamson County to resolve punchlist items, documented during the Acceptance Testing phase, in order to meet all the criteria for final system acceptance.

### **Williamson County Responsibilities**

- ◆ Assist Motorola with resolution of identified punchlist items by providing support, such as access to the sites, equipment and system, and approval of the resolved punchlist item(s).

### **Completion Criteria**

- ◆ All punchlist items resolved and approved by Williamson County.

## **8.9.3 Transition to Service/Project Transition Certificate**

### **Motorola Responsibilities**

- ◆ Review the items necessary for transitioning the project to warranty support and service.
- ◆ Provide a Customer Support Plan detailing the warranty and post warranty support, if applicable, associated with the Contract equipment.

### **Williamson County Responsibilities**

- ◆ Participate in the Transition Service/Project Transition Certificate (PTC) process.



### **Completion Criteria**

- ◆ All service information has been delivered and approved by the Williamson County.

## **8.9.4 Finalize Documentation**

### **Motorola Responsibilities**

- ◆ Provide an electronic as-built system manual on a Compact Disk (CD). The documentation will include the following:
  - System Level Diagram.
  - Site Block Diagrams.
  - Site Floor Plans.
  - Site Equipment Rack Configurations.
  - Antenna Network Drawings for RF Sites.
  - ATP Test Checklists.
  - Functional Acceptance Test Plan test sheets and results.
  - Equipment Inventory List.
  - Console Programming Template.
  - Maintenance Manuals.
  - Technical Service Manuals.

Drawings are created utilizing AutoCAD design software and will be delivered in Adobe PDF format. All other system manual documents converted from native format to Adobe PDF format to be included on the System Manual CD.

- ◆ Provide 2 console operator manuals at every dispatch center.

### **Williamson County Responsibilities**

- ◆ Receive and approve all documentation provided by Motorola.

### **Completion Criteria**

- ◆ All required documentation is provided and approved by Williamson County.

## **8.9.5 Final Acceptance (Milestone)**

- ◆ All deliverables completed, as contractually required.
- ◆ Final System Acceptance received from Williamson County.



## 8.10 Project Administration

### 8.10.1 Project Status Meetings

#### Motorola Responsibilities

- ◆ Motorola Project Manager, or designee, will attend all project status meetings with Williamson County, as determined during the CDR.
- ◆ Record the meeting minutes and supply the report.
- ◆ The agenda will include the following:
  - Overall project status compared to the Project Schedule.
  - Product or service related issues that may affect the Project Schedule.
  - Status of the action items and the responsibilities associated with them, in accordance with the Project Schedule.
  - Any miscellaneous concerns of either Williamson County or Motorola.

#### Williamson County Responsibilities

- ◆ Attend meetings.
- ◆ Respond to issues in a timely manner.

#### Completion Criteria

- ◆ Completion of the meetings and submission of meeting minutes.

### 8.10.2 Progress Milestone Submittal

#### Motorola Responsibilities

- ◆ Submit progress (non-payment) milestone completion certificate/documentation.

#### Williamson County Responsibilities

- ◆ Approve milestone, which will signify confirmation of completion of the work associated with the scheduled task.

#### Completion Criteria

- ◆ Williamson County approval of the Milestone Completion document(s).



### 8.10.3 Change Order Process

CHANGE ORDERS. Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

## 8.11 VHF Paging Station West Addition

### 8.11.1 Contract

#### 8.11.1.1 Contract Award (Milestone)

Williamson County and Motorola execute the contract and both parties receive all the necessary documentation.

#### 8.11.1.2 Contract Administration

##### **Motorola Responsibilities**

- ◆ Assign a Project Manager, as the single point of contact with authority to make project decisions.
- ◆ Assign resources necessary for project implementation.
- ◆ Set up the project in the Motorola information system.
- ◆ Schedule the project kick-off meeting with Williamson County.

##### **Williamson County Responsibilities**

- ◆ Assign a Project Manager, as the single point of contact responsible for Williamson County signed approvals.
- ◆ Assign other resources necessary to ensure completion of project tasks for which Williamson County is responsible.

##### **Completion Criteria**

- ◆ Motorola internal processes are set up for project management.
- ◆ Both Motorola and Williamson County assign all required resources.
- ◆ Project kickoff meeting is scheduled.



### 8.11.1.3 Project Kickoff

#### Motorola Responsibilities

- ◆ Conduct a project kickoff meeting during the Contract Design Review (CDR) phase of the project.
- ◆ Ensure key project team participants attend the meeting.
- ◆ Introduce all project participants attending the meeting.
- ◆ Review the roles of the project participants to identify communication flows and decision-making authority between project participants.
- ◆ Review the overall project scope and objectives with Williamson County.
- ◆ Review the resource and scheduling requirements with Williamson County.
- ◆ Review the Project Schedule with Williamson County to address upcoming milestones and/or events.
- ◆ Review the teams' interactions (Motorola and Williamson County), meetings, reports, milestone acceptance, and Williamson County's participation in particular phases.

#### Williamson County Responsibilities

- ◆ Williamson County's key project team participants attend the meeting.
- ◆ Review Motorola and Williamson County responsibilities.

#### Completion Criteria

- ◆ Project kick-off meeting completed.
- ◆ Meeting notes identify the next action items.

## 8.11.2 Contract Design Review (CDR)

### 8.11.2.1 Review Contract Design

#### Motorola Responsibilities

- ◆ Meet with Williamson County project team.
- ◆ Review the operational requirements and the impact of those requirements on various equipment configurations.
- ◆ Establish a defined baseline for the system design and identify any special product requirements and their impact on system implementation.
- ◆ Review the System Design, Statement of Work, Project Schedule, and Acceptance Test Plans, and update the contract documents accordingly.
- ◆ Discuss the proposed Cutover Plan and methods to document a detailed procedure.



- ◆ Submit design documents to Williamson County for approval. These documents form the basis of the system, which Motorola will manufacture, assemble, stage, and install.
- ◆ Prepare equipment layout plans for field install.
- ◆ Provide minimum acceptable performance specifications for microwave, fiber, or copper links.
- ◆ Establish demarcation point (SUPPLIED BY THE MOTOROLA SYSTEM ENGINEER) to define the connection point between the Motorola-supplied equipment and Williamson County-supplied link(s) and external interfaces.
- ◆ Finalize site development plan.
  - Conduct (updated) site evaluations to capture site details of the system design and to determine site readiness (when necessary).
  - Determine each site's ability to accommodate proposed equipment based upon physical capacity.
  - If applicable, test existing equipment with which Motorola equipment will interface.
- ◆ Prepare Site Evaluation Report that summarizes findings of above-described site evaluations.
- ◆ Work with Williamson County to identify radio interference between the new communication system and other existing radio systems.

### Restrictions

- ◆ Motorola assumes no liability or responsibility for inadequate frequency availability or frequency licensing issues.
- ◆ Motorola is not responsible for issues outside of its immediate control. Such issues include, but are not restricted to, improper frequency coordination by others and non-compliant operation of other radios.
- ◆ Motorola is not responsible for co-channel interference due to errors in frequency coordination by APCO or any other unlisted frequencies, or the improper design, installation, or operation of systems installed or operated by others.
- ◆ If, for any reason, any of the proposed sites cannot be utilized due to reasons beyond Motorola's control, the costs associated with site changes or delays including, but not limited to, re-engineering, frequency re-licensing, site zoning, site permitting, schedule delays, site abnormalities, re-mobilization, etc., will be paid for by Williamson County and documented through the change order process.

### Williamson County Responsibilities

- ◆ Williamson County's key project team participants attend the meeting.
- ◆ Make timely decisions, according to the Project Schedule.
- ◆ Frequency Licensing and Interference:





- As mandated by FCC, Williamson County, as the licensee, has the ultimate responsibility for providing all required radio licensing or licensing modifications for the system prior to system staging. This responsibility includes paying for FCC licensing and frequency coordination fees.
- Provide the FCC “call sign” station identifier for each site prior to system staging.

### **Completion Criteria**

- ♦ Complete Design Documentation, which may include updated System Description, Equipment List, system drawings, or other documents applicable to the project.
- ♦ Incorporate any deviations from the proposed system into the contract documents accordingly.
- ♦ The system design is “frozen,” in preparation for subsequent project phases such as Order Processing and Manufacturing.
- ♦ A Change Order is executed in accordance with all material changes resulting from the Design Review to the contract.

#### **8.11.2.2 Design Approval (Milestone)**

- ♦ Williamson County executes a Design Approval milestone document.

### **8.11.3 Order Processing**

#### **8.11.3.1 Process Equipment list**

##### **Motorola Responsibilities**

- ♦ Validate Equipment List by checking for valid model numbers, versions, compatible options to main equipment, and delivery data.
- ♦ Enter order into Motorola’s Customer Order Fulfillment (COF) system.
- ♦ Create Ship Views, to confirm with Williamson County the secure storage location(s) to which the equipment will ship. Ship Views are the mailing labels that carry complete equipment shipping information, which direct the timing, method of shipment, and ship path for ultimate destination receipt.
- ♦ Create equipment orders.
- ♦ Reconcile the equipment list(s) to the Contract.
- ♦ Procure third-party equipment if applicable.



### **Williamson County Responsibilities**

- ◆ Approve shipping location(s).
- ◆ Complete and provide Tax Certificate information verifying tax status of shipping location.

### **Completion Criteria**

- ◆ Verify that the Equipment List contains the correct model numbers, version, options, and delivery data.
- ◆ Trial validation completed.
- ◆ Bridge the equipment order to the manufacturing facility.

## **8.11.4 Manufacturing and Staging**

### **8.11.4.1 Manufacture Motorola Fixed Network Equipment**

#### **Motorola Responsibilities**

- ◆ Manufacture the Fixed Network Equipment (FNE) necessary for the system based on equipment order.

#### **Williamson County Responsibilities**

- ◆ None.

#### **Completion Criteria**

- ◆ FNE shipped to either the field or the staging facility.

### **8.11.4.2 Manufacture Non-Motorola Equipment**

#### **Motorola Responsibilities**

- ◆ Manufacture (third party equipment suppliers) non-Motorola equipment necessary for the system based on equipment order.

#### **Williamson County Responsibilities**

- ◆ None.

#### **Completion Criteria**

- ◆ Ship non-Motorola manufactured equipment to the field and/or the staging facility.



### 8.11.4.3 Ship Equipment to Field

#### Motorola Responsibilities

- ◆ Pack system for shipment to final destination.
- ◆ Arrange for shipment to the field.

#### Williamson County Responsibilities

- ◆ None.

#### Completion Criteria

- ◆ Equipment ready for shipment to the field.

### 8.11.5 Civil Work for Williamson County Provided Facilities

#### Motorola Responsibilities

- ◆ Provide electrical requirements for each equipment rack to be installed in Williamson County-provided facilities.
- ◆ Provide heat load for each equipment rack to be installed in Williamson County provided facilities.

#### Williamson County Responsibilities

- ◆ Secure site lease/ownership, zoning, permits, regulatory approvals, easements, power, and Telco connections.
- ◆ Provide clear and stable access to the sites for transporting electronics and other materials. Sufficient site access must be available for trucks to deliver materials under their own power and for personnel to move materials to the facility without assistance from special equipment.
- ◆ Design and construct facilities for housing communications equipment such as shelters, towers, generators, fuel tanks, fenced compounds, etc.
- ◆ Supply adequately sized electrical service, backup power (UPS, generator, batteries, etc.) including the installation of conduit, circuit breakers, outlets, etc., at each equipment location. Provide AC power (dedicated 20 Amp AC outlets - simplex with ground) for each major piece of equipment within 6 feet of the location of the Motorola-supplied equipment, including the associated electrical service and wiring (conduit, circuit breakers, etc.).
- ◆ Provide adequate HVAC, grounding, lighting, cable routing, and surge protection (also, among existing and Motorola-provided equipment) based upon Motorola's R56 Standards and Guidelines for Communication Sites. Ceiling (minimum 9 feet) and cable tray heights (minimum 8 feet) in the equipment rooms in order to accommodate 7-foot, 6-inch equipment racks.



- ◆ Provide floor space and desk space for the System equipment at Williamson County-provided facilities. Each rack shall be provided a minimum of 24-inch x 24-inch footprint with 36 inches clearance in the front and back.
- ◆ Relocate existing equipment, if needed, to provide required space for the installation of Motorola-supplied equipment.
- ◆ Bring grounding system up to Motorola's R56 Standards and Guidelines for Communication Sites and supply a single point system ground, of 5 ohms or less, to be used on all FNE supplied under the Contract. Supply grounding tie point within 10 feet from the Motorola-supplied equipment.
- ◆ Provide all necessary wall or roof penetrations on existing buildings for antenna coax and microwave waveguide (if applicable) for main transmitter antennas, microwave radios, and control station Yagi antennas.
- ◆ Provide obstruction-free area for the cable run between the demarcation point and the communications equipment.
- ◆ Resolve any environmental issues including, but not limited to, asbestos, structural integrity (rooftop, water tank, tower, etc.) of the site, and any other building risks. (Resolve environmental or hazardous material issues).
- ◆ Arrange for space on the tower for installation of new antennas at the proposed heights.
- ◆ Perform structural analysis of existing tower and rooftops as required to confirm that the structure is capable of supporting proposed and future antenna loads.
- ◆ Supply all permits as contractually required.
- ◆ Supply interior building cable trays, raceways, conduits, and wire supports.
- ◆ Supply engineering and drafting as required for modifications to existing building drawings for site construction.
- ◆ Pay for usage costs of power and generator fueling, both during the construction and installation effort, and on an ongoing basis.
- ◆ Complete all Williamson County deliverables in accordance within the approved project schedule.

### Completion Criteria

- ◆ All sites are ready for equipment installations in compliance with Motorola's R56 Standards and Guidelines for Communication Sites.



## 8.11.6 System Installation

### 8.11.6.1 Install Fixed Network Equipment at either the Cedar Park or Liberty Hill Site

#### Motorola Responsibilities

- ♦ Will provide storage location for the Motorola-provided equipment.
- ♦ Receive and inventory all equipment.
- ♦ Install system equipment as specified by the Equipment List, System Description, and system drawings at either the Cedar Park site or Liberty Hill site.

#### Interference

Motorola is not responsible for interference caused or received by the Motorola provided equipment except for interference that is directly caused by the Motorola provided transmitter(s) to the Motorola provided receiver(s). Should the Williamson County system experience interference, Motorola can be contracted to investigate the source and recommend solutions to mitigate the issue.

- ♦ Bond the supplied equipment to the site ground system in accordance with the Motorola R56 Standards and Guidelines for Communication Sites.
- ♦ Will not remove existing equipment.
- ♦ Will not relocate existing equipment to a location designated by Williamson County.
- ♦ Will not dispose of existing equipment.

#### Williamson County Responsibilities

- ♦ Provide access to the sites, as necessary.
- ♦ Select site, either Cedar Park or Liberty Hill.

#### Completion Criteria

- ♦ Fixed Network Equipment installation completed and ready for optimization.

### 8.11.6.2 Fixed Network Equipment Installation Complete

- ♦ All fixed network equipment installed and accepted by Williamson County.

### 8.11.6.3 System Installation Acceptance (Milestone)

- ♦ All equipment installations are completed and accepted by Williamson County.



## 8.11.7 System Optimization

### 8.11.7.1 Optimize System FNE

#### **Motorola Responsibilities**

- ◆ Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.
- ◆ Verify that all audio and data levels are at factory settings.
- ◆ Check forward and reflected power for all radio equipment, after connection to the antenna systems, to verify that power is within tolerances.
- ◆ Motorola and its subcontractors optimize each subsystem.
- ◆ Verify communication interfaces between devices for proper operation.
- ◆ Test features and functionality are in accordance with manufacturers' specifications and that they comply with the final configuration established during the CDR/system staging.

#### **Williamson County Responsibilities**

- ◆ Provide access/escort to the sites.

#### **Completion Criteria**

- ◆ System FNE optimization is complete.

### 8.11.7.2 Link Verification

#### **Motorola Responsibilities**

- ◆ Perform test to verify site link performance, prior to the interconnection of the Motorola-supplied equipment to the link equipment.

#### **Williamson County Responsibilities**

- ◆ Make available the required links which meet the specifications supplied by Motorola at the CDR.

#### **Completion Criteria**

- ◆ Link verification successfully completed.

### 8.11.7.3 Optimization Complete

- ◆ System optimization is completed. Motorola and Williamson County agree that the equipment is ready for acceptance testing.



## 8.11.8 Training

### 8.11.8.1 Perform Training

- ♦ Training is not included in this proposal.

## 8.11.9 Audit and Acceptance Testing

### 8.11.9.1 Perform R56 Audit

#### **Motorola Responsibilities**

- ♦ Perform R56 site-installation quality-audits, verifying proper physical installation and operational configurations.
- ♦ Create site evaluation report to verify site meets or exceeds requirements, as defined in Motorola's R 56 Standards and Guidelines for Communication Sites.

#### **Williamson County Responsibilities**

- ♦ Provide access/escort to the sites.
- ♦ Witness tests.

#### **Completion Criteria**

- ♦ All R56 Standards and Guidelines for Communication Sites audits completed successfully.

### 8.11.9.2 Perform Equipment Testing

#### **Motorola Responsibilities**

- ♦ Test individual components of the system to verify compliance to the equipment specifications.
- ♦ Repeat any failed test(s) once Motorola (or Williamson County) has completed the corrective action(s).
- ♦ Prepare documentation of component tests to be delivered as part of the final documentation package.

#### **Williamson County Responsibilities**

- ♦ Witness tests if desired.

#### **Completion Criteria**

- ♦ Successful completion of equipment testing.



### 8.11.9.3 Perform Functional Testing

#### Motorola Responsibilities

- ♦ Verify the operational functionality and features of the individual subsystems and the system supplied by Motorola, as contracted.
- ♦ If any major task as contractually described fails, repeat that particular task after Motorola determines that corrective action has been taken.
- ♦ Document all issues that arise during the acceptance tests.
- ♦ Document the results of the acceptance tests and present to Williamson County for review.
- ♦ Resolve any minor task failures before Final System Acceptance.

#### Williamson County Responsibilities

- ♦ Witness the functional testing.

#### Completion Criteria

- ♦ Successful completion of the functional testing.
- ♦ Williamson County approval of the functional testing.

### 8.11.9.4 Coverage Testing

- ♦ Motorola does not guarantee coverage for the proposed repeater sites in this proposal. Informational coverage maps for outbound coverage to an XTS portable have been provided for a tower site comparison analysis only.

## 8.11.10 Finalize

### 8.11.10.1 Cutover

#### Motorola Responsibilities

- ♦ Motorola and Williamson County develop a mutually agreed upon cutover plan based upon discussions held during the CDR.
- ♦ During cutover, follow the written plan and implement the defined contingencies, as required.
- ♦ Conduct cutover meeting(s) with user group representatives to address both how to mitigate technical and communication problem impact to the users during cutover and during the general operation of the system.





### **Williamson County Responsibilities**

- ◆ Attend cutover meetings and approve the cutover plan.
- ◆ Notify the user group(s) affected by the cutover (date and time).
- ◆ Conduct a roll call of all users working during the cutover, in an organized and methodical manner.
- ◆ Ensure that all Subscriber users are trained and the Subscribers have been activated on the system.
- ◆ Provide Motorola with the subscriber information for input into the system database, for activation.

### **Completion Criteria**

- ◆ Successful migration from the old system to the new system.

## **8.11.10.2 Resolve Punchlist**

### **Motorola Responsibilities**

- ◆ Work with Williamson County to resolve punchlist items, documented during the Acceptance Testing phase, in order to meet all the criteria for final system acceptance.

### **Williamson County Responsibilities**

- ◆ Assist Motorola with resolution of identified punchlist items by providing support, such as access to the sites, equipment and system, and approval of the resolved punchlist item(s).

### **Completion Criteria**

- ◆ All punchlist items resolved and approved by Williamson County.

## **8.11.10.3 Transition to Service/Project Transition Certificate**

### **Motorola Responsibilities**

- ◆ Review the items necessary for transitioning the project to warranty support and service.
- ◆ Provide a Customer Support Plan detailing the warranty and post warranty support, if applicable, associated with the Contract equipment.

### **Williamson County Responsibilities**

- ◆ Participate in the Transition Service/Project Transition Certificate (PTC) process.



### **Completion Criteria**

- ◆ All service information has been delivered and approved by Williamson County.

## **8.11.10.4 Finalize Documentation**

### **Motorola Responsibilities**

- ◆ Provide an electronic as-built system manual on a Compact Disk (CD). The documentation will include the following:
  - Site Block Diagrams.
  - ATP Test Checklists.
  - Functional Acceptance Test Plan test sheets and results.
  - Equipment Inventory List.

Drawings are created utilizing AutoCAD design software and will be delivered in Adobe PDF format. All other system manual documents converted from native format to Adobe PDF format to be included on the System Manual CD.

### **Williamson County Responsibilities**

- ◆ Receive and approve all documentation provided by Motorola.

### **Completion Criteria**

- ◆ All required documentation is provided and approved by Williamson County.

## **8.11.10.5 Final Acceptance (Milestone)**

- ◆ All deliverables completed, as contractually required.
- ◆ Final System Acceptance received from Williamson County.

## **8.11.11 Project Administration**

### **8.11.11.1 Project Status Meetings**

#### **Motorola Responsibilities**

- ◆ Motorola Project Manager, or designee, will attend all project status meetings with Williamson County, as determined during the CDR.
- ◆ Record the meeting minutes and supply the report.
- ◆ The agenda will include the following:
  - Overall project status compared to the Project Schedule.
  - Product or service related issues that may affect the Project Schedule.



- Status of the action items and the responsibilities associated with them, in accordance with the Project Schedule.
- Any miscellaneous concerns of either Williamson County or Motorola.

#### **Williamson County Responsibilities**

- ♦ Attend meetings.
- ♦ Respond to issues in a timely manner.

#### **Completion Criteria**

- ♦ Completion of the meetings and submission of meeting minutes.

### **8.11.11.2 Progress Milestone Submittal**

#### **Motorola Responsibilities**

- ♦ Submit progress (non-payment) milestone completion certificate/documentation.

#### **Williamson County Responsibilities**

- ♦ Approve milestone, which will signify confirmation of completion of the work associated with the scheduled task.

#### **Completion Criteria**

- ♦ Williamson County approval of the Milestone Completion document(s).

### **8.11.11.3 Change Order Process**

CHANGE ORDERS. Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

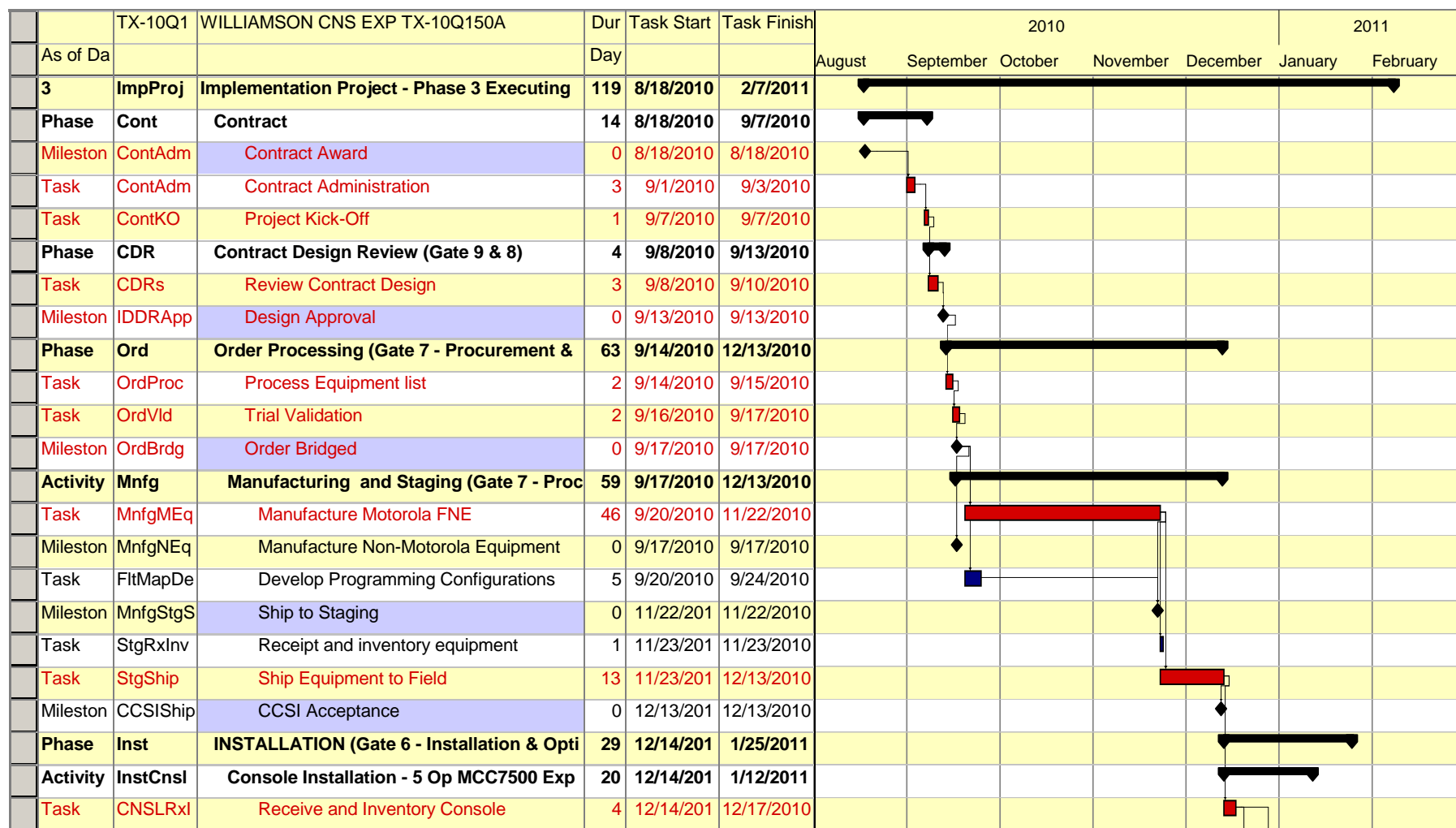




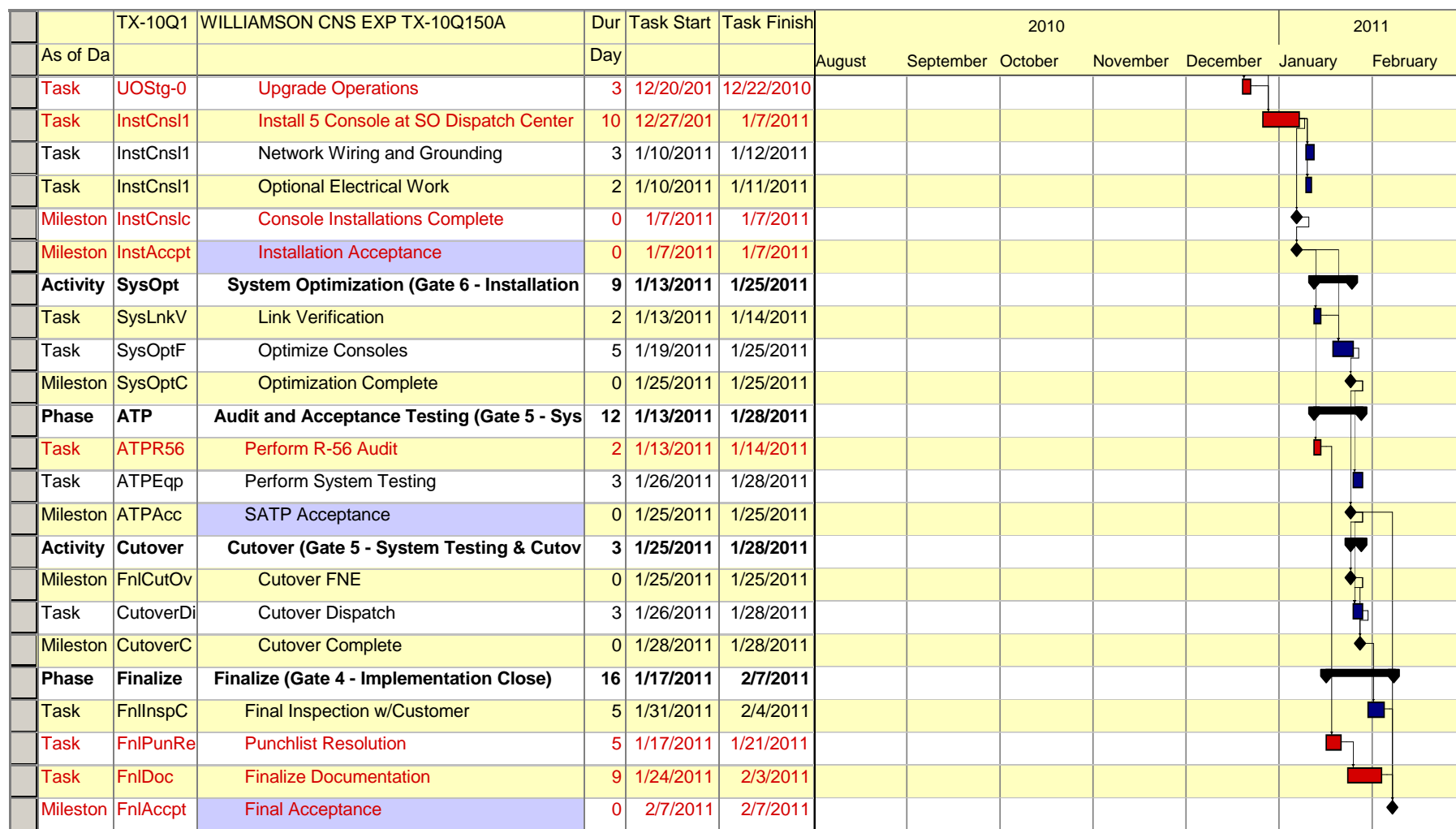
## Section 9. Phase 1 Project Schedule

The Project Schedule is included on the following pages.

# WILLIAMSON CNS EXP TX-10Q150A - Project Gantt



# WILLIAMSON CNS EXP TX-10Q150A - Project Gantt

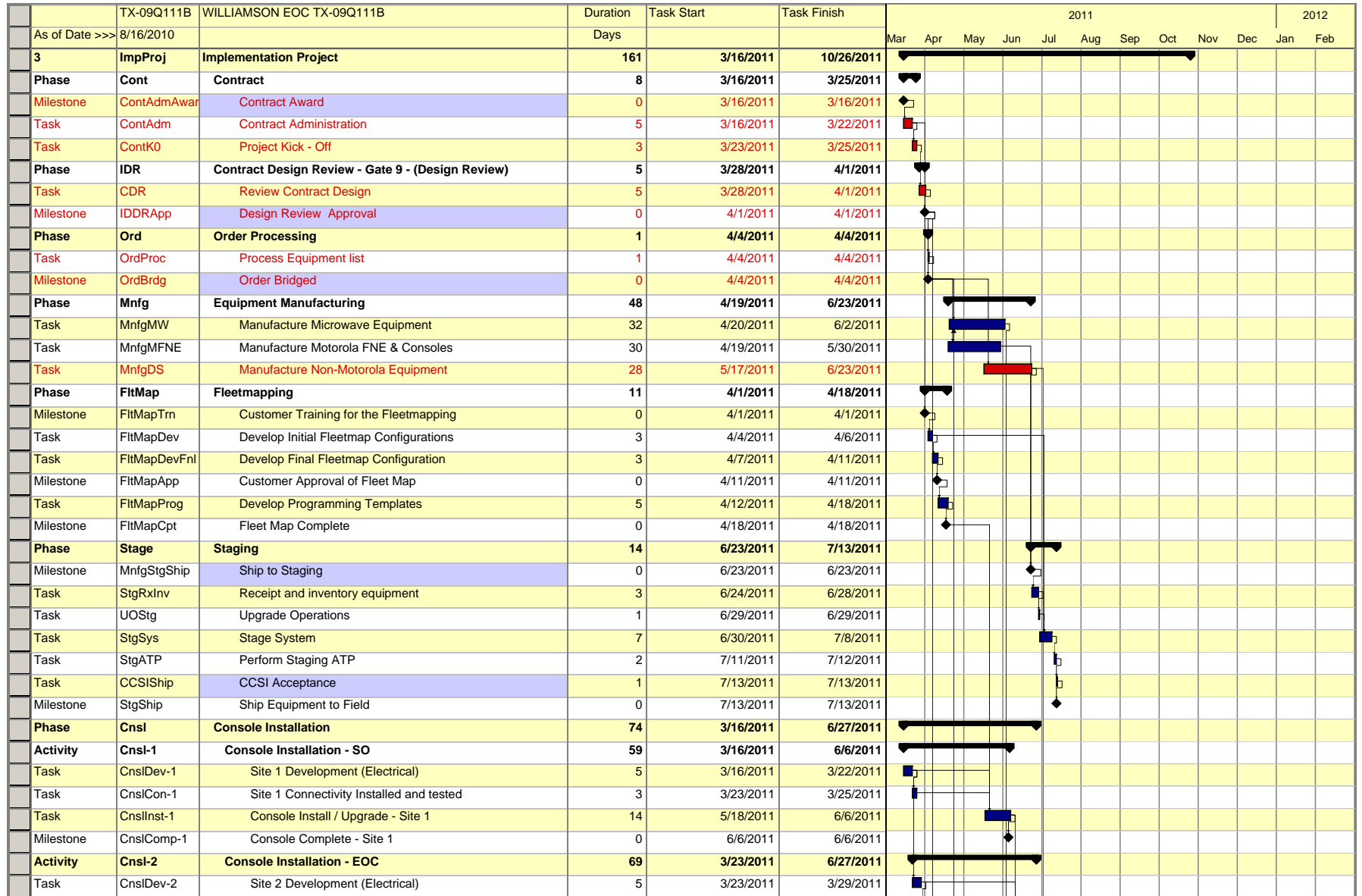




## Section 10. Phase 2 Project Schedule

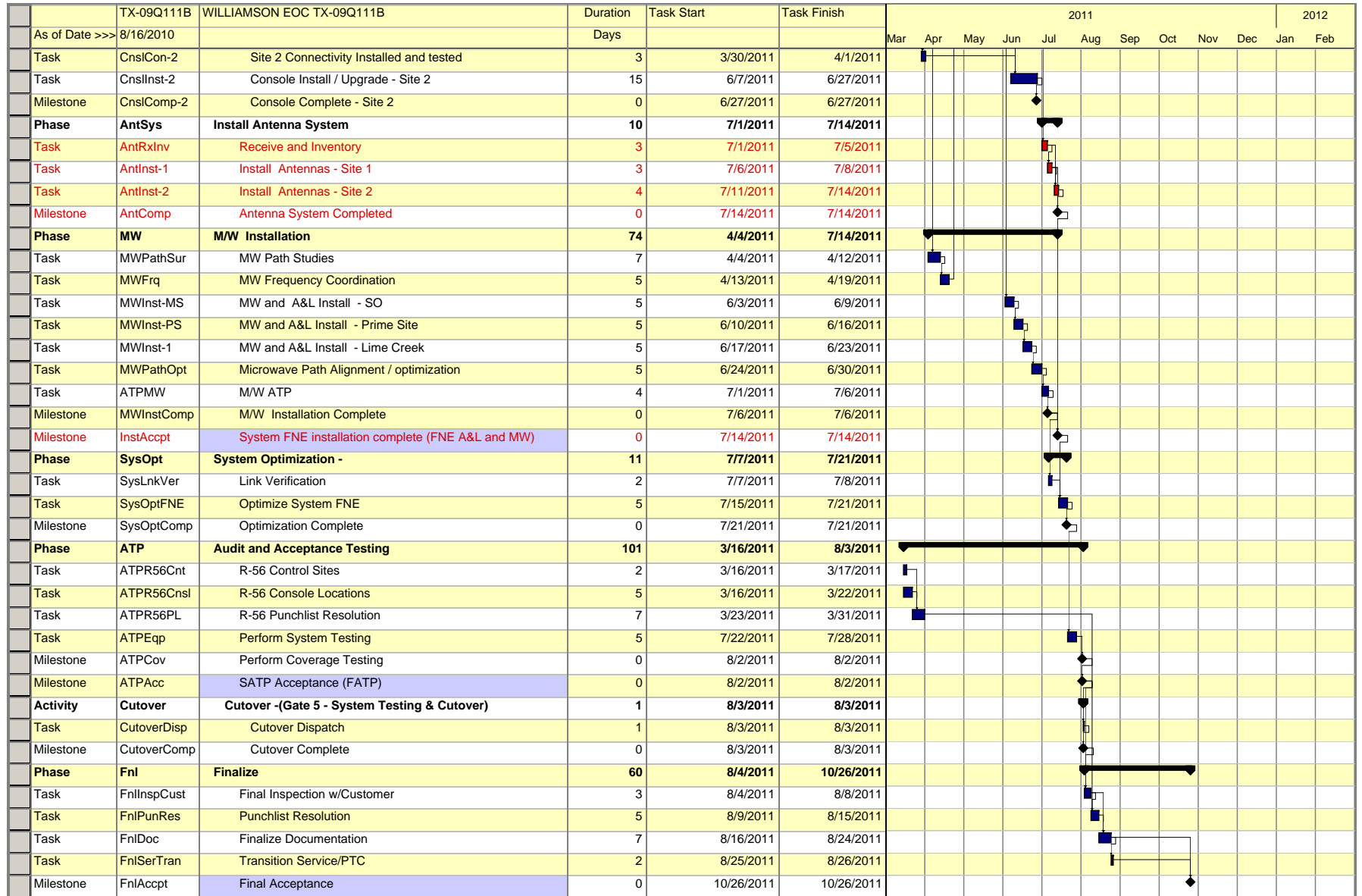
The Project Schedule is included on the following pages.

# WILLIAMSON EOC TX-09Q111B - Project Gantt





# WILLIAMSON EOC TX-09Q111B - Project Gantt





## Section 11. Phase 1 Warranty and Maintenance

Motorola places great emphasis on ensuring that communications systems, such as the one proposed for the Williamson County Sheriff's Office, meet high standards for design, manufacture, and performance. To enhance the value of the communications system being acquired, Motorola offers customized warranty and post-warranty services as outlined in this section.

**Table 11-1: Warranty/Post-Warranty Services Overview**

Warranty/Post Warranty Services	Included	Optional	Not Included
Warranty: Standard	√		
Warranty: Enhanced Warranty Support Services	√		
Dispatch Services	√		
Technical Support	√		
Network and Security Monitoring Services	√		
Infrastructure Repair w/Advanced Replacement	√		
Onsite Infrastructure Response (7x24 2-hour)	√		
Network Preventative Maintenance	√		
Post Warranty Services			√

### 11.1 Warranty Services

Motorola will provide warranty services per our standard warranty terms and conditions as outlined within the System Purchase Agreement within this proposal.

## 11.2 Enhanced Warranty Support Services

Motorola is able to customize its Standard Commercial Warranty offering through the delivery of a combination of unique services to provide full operational support of your MCC 7500 Console Expansion. By combining our system services into a comprehensive and cohesive program, Motorola is able to effectively deliver technical support, diagnostic assistance, and restoration services in a thorough and responsive manner. These customized enhanced warranty support services are included as part of your first year System Support Plan beginning during the warranty period.

The following figure provides an overview of the enhanced warranty services maintenance support plan to be delivered, mirroring those presently delivered to Williamson County, indicating the various interactions among system support components.

### Enhanced Warranty Support Plan

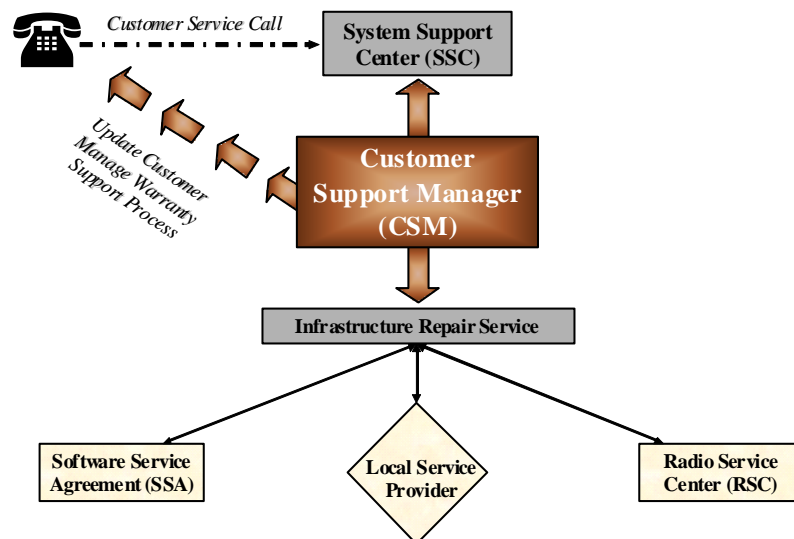


Figure 11-1: Enhanced Warranty Support Plan Overview

The following list depicts those services included in Enhanced Warranty Support and available to customize post-warranty services:



## 11.2.1 Dispatch Services

### 11.2.1.1 Onsite Response – Motorola Resources

The Call Center Operation (CCO) at Motorola's System Support Center (SSC) is your single point of contact for service issues. A phone call to this operation's toll free 800- phone number initiates an electronic customer service request (Case) and begins the response process to the appropriate degree required. If a technician is required to respond to an issue for resolution, the CCO identifies the appropriate technician and tracks his response to the onsite point of failure. They track the technician's progress in effecting the repair and restoration, and notify the Customer of the status. In the event that a System Engineer or other system specialist is required, the CCO escalates the case to the appropriate level and assigns the required personnel. Once the case has been resolved the CCO will contact the Customer to advise that the issue has been resolved and that the case is ready to be closed with the Customer's concurrence.

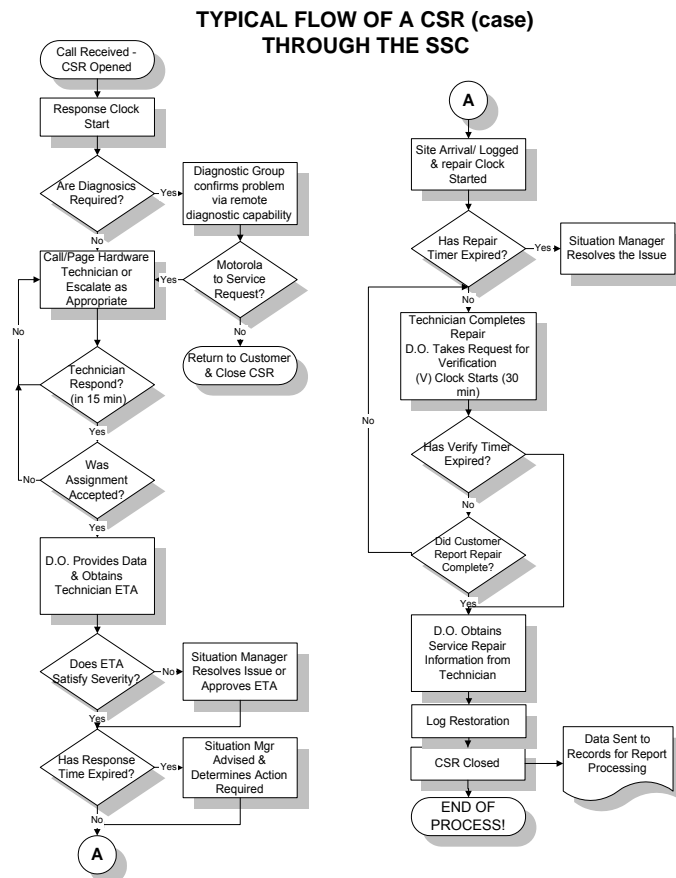


Figure 11-2: Typical Flow of a CSR (case) Through the SSC



## 11.2.2 Technical Support

Motorola's Technical Support was created to insure that Williamson County is provided the answers to their technical issues. Motorola's Technical Support Operation is manned 24 hours per day, 365 days a year to field all levels of calls. This operation is staffed with technologists who specialize in the diagnosis and resolution of system performance issues by telephone. A Case is created on each issue and is followed to resolution, with escalation if necessary. Because of the Center's proximity to the factory engineers, the highest level of technical support is available.

## 11.2.3 Network and Security Monitoring Services

### 11.2.3.1 Network Monitoring Service

Motorola's Network Monitoring Operation monitors specific elements of the system for events and alarms. When events or alarms are detected, they are forwarded to Motorola's System Support Center using system-specific monitoring tools. The System Support Center is staffed with trained technologists, who acknowledge the event, run available diagnostic routines, and initiate an appropriate response. Many system issues may be resolved remotely through these services. In the event that field resources are required, they are alerted to specific elements of the problem, and informed as to what spares, and/or boards to have on hand for replacement. This provides the most efficient and least amount of downtime to your system. Reports are sent monthly about system performance.

### 11.2.3.2 Security Monitoring Service

Security elements such as anti-virus, firewalls, and Intrusion Detection Systems (IDS) are a good first step, but they are not enough to secure your network. Radio network operators must take additional steps to reduce vulnerabilities to potential attack and protect critical radio network infrastructure. Motorola's ASTRO 25 Security Monitoring is a complete solution that reduces the risk of network availability being impacted by a security threat. Specialized security analysts provide uninterrupted monitoring of the radio network security elements utilizing advanced correlation and visualization tools to detect, characterize, and respond to events that are specifically applicable to government and public safety radio networks. Our security analysts have direct and immediate access to Motorola engineers for rapid resolution. This level of service ensures the operational impact that security events may cause to your network are minimized or eliminated.



### 11.2.3.3 Pre-Tested Software Subscription (PTSS)

Commercial security software updates are often designed without RF systems in mind and could cause inadvertent harm to your radio network, disrupting mission-critical communications and putting your first responders and citizens at risk. Motorola's Pre-Tested Software Subscription (PTSS) assures that commercial anti-virus definitions, operating system software patches, and Intrusion Detection Sensor signature files are compatible with your ASTRO 25 network and do not interfere with network functionality. Our expert network security technologists analyze, perform testing, and validate the latest security software updates in a dedicated test lab. We also provide continuous monitoring of updates to provide you regular electronic updates upon completion of successful testing.

### 11.2.4 Infrastructure Repair Service w/Advanced Replacement

Infrastructure Repair with Advanced Replacement can provide a field replacement unit (FRU) in advance and in exchange for the customer's malfunctioning component from Infrastructure Depot Operation's (IDO's) inventory, (FRUs are subject to availability). Advanced Replacement FRUs are shipped overnight with high priority.

In the event the Motorola Local Service Provider must remove a malfunctioning board/unit at the site location, the Motorola Local Service Provider will contact the System Support Center's Call Center to request a return authorization (RA) number. The Motorola Local Service Provider will remove the malfunctioning board/unit and ship to the SSC for repair.

Upon receipt of malfunctioning equipment, the SSC will fully system test and repair malfunctioning Motorola manufactured boards/units down to the component level utilizing automated test equipment. A system test is performed to ensure that all software and hardware is set to the current customer configuration. If the unit is not manufactured by Motorola, the unit may be returned to the Original Equipment Manufacturer (OEM) for repair.



## 11.2.5 Onsite Infrastructure Response

### 11.2.5.1 Dispatched by SSC

Onsite Infrastructure Response provides for onsite technician response as determined by predefined severity levels and response times in order to restore the system. Technicians are dispatched by SSC's Call Center Operations (as described under Dispatch Service) to perform first echelon service, provide information to customer regarding system condition, remove failed components for repair, and reinstall new or reconditioned components. Onsite Infrastructure Response requires the purchase of Dispatch Service.

Onsite Infrastructure Response provides for response as determined by predefined severity levels and response times. Severity 1 issues are dispatched 24 hours a day, 365 days a year including holidays. Motorola's onsite response time goal is two hours or less for Severity 1 events.

## 11.2.6 Network Preventative Maintenance

Motorola's Network Preventative Maintenance service will provide Williamson County with an operational test and alignment of the fixed equipment to insure that it continues to meet the original manufacturer's specifications. This service will be performed annually in conjunction with a prearranged schedule. This service will be performed during normal working hours with the intent to minimize any disruption of service to users. If the service must be performed after hours, a quote will be provided. System documentation will be updated based on this information. The list of documented parameters will be determined by agreement with Williamson County. All equipment provided as a part of the system will be included.

## 11.3 Post Warranty Services

As Motorola's continuing commitment to supporting your system, warranty services can be extended after the first year to provide maintenance and service support in future years. Any of the services that we identify can be customized in future years, and are available for purchase either in "System Support Services" packages or as individual service offerings. These system support services significantly benefit Williamson County because the system can be effectively supported after the warranty period, thereby maximizing the operational capabilities and useful life of the system and protecting your investment in the system.

Post Warranty support services are not included with this offering but can be provided upon request.





## Section 12. Phase 2 Warranty and Maintenance

Motorola places great emphasis on ensuring that communications systems, such as the one proposed for Williamson County, meet high standards for design, manufacture, and performance. To enhance the value of the communications system being acquired, Motorola offers customized warranty and post-warranty services as outlined in this section.

**Table 122-1: Warranty/Post-Warranty Services Overview**

Warranty/Post Warranty Services	Included	Optional	Not Included
Warranty: Standard	√		
Warranty: Enhanced Warranty Support Services	√		
Dispatch Services	√		
Technical Support	√		
Network and Security Monitoring Services	√		
Infrastructure Repair w/Advanced Replacement	√		
Onsite Infrastructure Response (7x24 2-hour)	√		
Network Preventative Maintenance	√		
Post Warranty Services			√

### 12.1 Warranty Services

Motorola will provide warranty services per our standard warranty terms and conditions, as outlined within the System Purchase Agreement within this proposal.



## 12.2 Enhanced Warranty Support Services

Motorola is able to customize its Standard Commercial Warranty offering through the delivery of a combination of unique services to provide full operational support of your MCC 7500 Console Expansion. By combining our system services into a comprehensive and cohesive program, Motorola is able to effectively deliver technical support, diagnostic assistance, and restoration services in a thorough and responsive manner. These customized enhanced warranty support services are included as part of your first year System Support Plan beginning during the warranty period.

The following figure provides an overview of the enhanced warranty services maintenance support plan to be delivered, mirroring those presently delivered to County, indicating the various interactions among system support components.

### Enhanced Warranty Support Plan

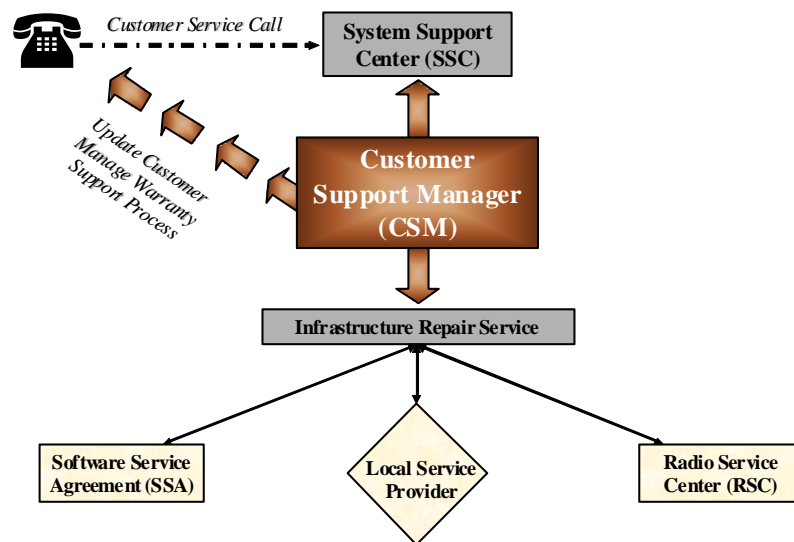


Figure 122-1: Enhanced Warranty Support Plan Overview

The following list depicts those services included in Enhanced Warranty Support and available to customize post-warranty services:



## 12.3 Dispatch Services

### 12.3.1 Onsite Response – Motorola Resources

The Call Center Operation (CCO) at Motorola's System Support Center (SSC) is your single point of contact for service issues. A phone call to this operation's toll free 800- phone number initiates an electronic customer service request (Case) and begins the response process to the appropriate degree required. If a technician is required to respond to an issue for resolution, the CCO identifies the appropriate technician and tracks his response to the onsite point of failure. They track the technician's progress in effecting the repair and restoration, and notify the Customer of the status. In the event that a System Engineer or other system specialist is required, the CCO escalates the case to the appropriate level and assigns the required personnel. Once the case has been resolved the CCO will contact the Customer to advise that the issue has been resolved and that the case is ready to be closed with the Customer's concurrence.

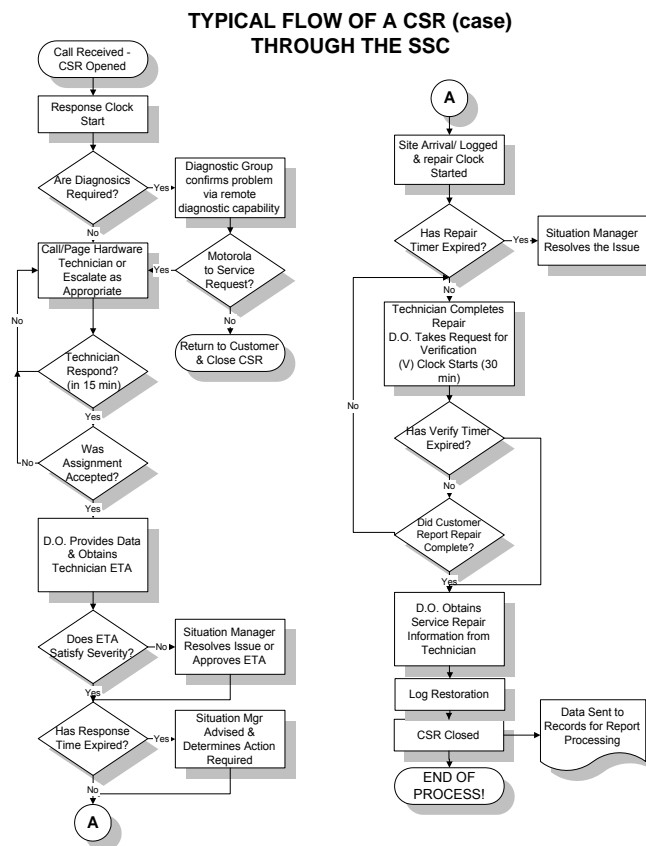


Figure 122-2: Typical Flow of CSR (case) Through the SSC



## 12.3.2 Technical Support

Motorola's Technical Support was created to insure that County is provided the answers to their technical issues. Motorola's Technical Support Operation is manned 24 hours per day, 365 days a year to field all levels of calls. This operation is staffed with technologists who specialize in the diagnosis and resolution of system performance issues by telephone. A Case is created on each issue and is followed to resolution, with escalation if necessary. Because of the Center's proximity to the factory engineers, the highest level of technical support is available.

## 12.3.3 Network and Security Monitoring Services

### 12.3.3.1 Network Monitoring Service

Motorola's Network Monitoring Operation monitors specific elements of the system for events and alarms. When events or alarms are detected, they are forwarded to Motorola's System Support Center using system-specific monitoring tools. The System Support Center is staffed with trained technologists, who acknowledge the event, run available diagnostic routines, and initiate an appropriate response. Many system issues may be resolved remotely through these services. In the event that field resources are required, they are alerted to specific elements of the problem, and informed as to what spares, and/or boards to have on hand for replacement. This provides the most efficient and least amount of downtime to your system. Reports are sent monthly about system performance.

### 12.3.3.2 Security Monitoring Service

Security elements such as anti-virus, firewalls, and Intrusion Detection Systems (IDS) are a good first step, but they are not enough to secure your network. Radio network operators must take additional steps to reduce vulnerabilities to potential attack and protect critical radio network infrastructure. Motorola's ASTRO 25 Security Monitoring is a complete solution that reduces the risk of network availability being impacted by a security threat. Specialized security analysts provide uninterrupted monitoring of the radio network security elements utilizing advanced correlation and visualization tools to detect, characterize, and respond to events that are specifically applicable to government and public safety radio networks. Our security analysts have direct and immediate access to Motorola engineers for rapid resolution. This level of service ensures the operational impact that security events may cause to your network are minimized or eliminated.



### 12.3.3.3 Pre-Tested Software Subscription (PTSS)

Commercial security software updates are often designed without RF systems in mind and could cause inadvertent harm to your radio network, disrupting mission-critical communications and putting your first responders and citizens at risk. Motorola's Pre-Tested Software Subscription (PTSS) assures that commercial anti-virus definitions, operating system software patches, and Intrusion Detection Sensor signature files are compatible with your ASTRO 25 network and do not interfere with network functionality. Our expert network security technologists analyze, perform testing, and validate the latest security software updates in a dedicated test lab. We also provide continuous monitoring of updates to provide you regular electronic updates upon completion of successful testing.

### 12.3.4 Infrastructure Repair Service w/Advanced Replacement

Infrastructure Repair with Advanced Replacement can provide a field replacement unit (FRU) in advance and in exchange for the customer's malfunctioning component from Infrastructure Depot Operation's (IDO's) inventory, (FRUs are subject to availability). Advanced Replacement FRUs are shipped overnight with high priority.

In the event the Motorola Local Service Provider must remove a malfunctioning board/unit at the site location, the Motorola Local Service Provider will contact the System Support Center's Call Center to request a return authorization (RA) number. The Motorola Local Service Provider will remove the malfunctioning board/unit and ship to the SSC for repair.

Upon receipt of malfunctioning equipment, the SSC will fully system test and repair malfunctioning Motorola manufactured boards/units down to the component level utilizing automated test equipment. A system test is performed to ensure that all software and hardware is set to the current customer configuration. If the unit is not manufactured by Motorola, the unit may be returned to the Original Equipment Manufacturer (OEM) for repair.



## 12.3.5 Onsite Infrastructure Response

### 12.3.5.1 Dispatched by SSC

OnSite Infrastructure Response provides for onsite technician response as determined by predefined severity levels and response times in order to restore the system. Technicians are dispatched by SSC's Call Center Operations (as described under Dispatch Service) to perform first echelon service, provide information to customer regarding system condition, remove failed components for repair, and reinstall new or reconditioned components. OnSite Infrastructure Response requires the purchase of Dispatch Service.

Onsite Infrastructure Response provides for response as determined by predefined severity levels and response times. Severity 1 issues are dispatched 24 hours a day, 365 days a year including holidays. Motorola's onsite response time goal is two hours or less for Severity 1 events.

## 12.3.6 Network Preventative Maintenance

Motorola's Network Preventative Maintenance service will provide County with an operational test and alignment of the fixed equipment to insure that it continues to meet the original manufacturer's specifications. This service will be performed annually in conjunction with a prearranged schedule. This service will be performed during normal working hours with the intent to minimize any disruption of service to users. If the service must be performed after hours, a quote will be provided. System documentation will be updated based on this information. The list of documented parameters will be determined by agreement with County. All equipment provided as a part of the system will be included.

## 12.4 Post Warranty Services

As Motorola's continuing commitment to supporting your system, warranty services can be extended after the first year to provide maintenance and service support in future years. Any of the services that we identify can be customized in future years, and are available for purchase either in "System Support Services" packages or as individual service offerings. These system support services significantly benefit County because the system can be effectively supported after the warranty period, thereby maximizing the operational capabilities and useful life of the system and protecting your investment in the system.

Post Warranty support services are not included with this offering but can be provided upon request.





## Section 13. Pricing Summary

Motorola's pricing is based on the equipment list and services defined for the system designed for Williamson County. The Statement of Work (SOW) describes the work to be performed for the installation, optimization, and testing of the system and the equipment list provides the equipment necessary for this project.

### 13.1 Williamson County EOC Move and Console Expansion

All Pricing is valid if contract is executed on or before 9-28-10.

#### 13.1.1 Phase 1: MCC 7500 Console Expansion Project

Pricing Summary	
Add five additional consoles to the Williamson County dispatch center	
HGAC CONTRACT DISCOUNT TOTAL	\$377,915.00
Electrical Work	\$5,700.00
Total Project Price	\$383,615.00
ADDED SYSTEM DISCOUNT – To match Austin Contract Discount Level.	(\$35,000.00)
<b>Phase 1 Total</b>	<b>\$348,615.00</b>
<b>With additional system discount</b>	

### 13.1.2 Phase 1 Total Cost Summary

Pricing Summary	
MCC 7500 Console Hardware (HGAC Discounted Price)	\$196,396.00
Services	\$181,519.00
Electrical Work	\$5,700.00
<ul style="list-style-type: none"> <li>▪ Project Management</li> <li>▪ Installation and Optimization</li> <li>▪ Programming</li> <li>▪ Civil Work, Civil Equipment</li> <li>▪ Contractor Provided Hardware</li> <li>▪ ESS Support and Extended 24x7 Warranty</li> <li>▪ CCSi Staging</li> <li>▪ Engineering Services</li> <li>▪ ST Integration Services</li> <li>▪ Upgrade Operations to Master Site</li> <li>▪ Shipping and Handling</li> </ul>	

### 13.1.3 Phase 2: Williamson County EOC Move and Additional Console Expansion

Pricing Summary	
HGAC Contract Discount Total	\$1,049,380.00
Additional System Discount	(\$108,864.00)
<b>Phase 2 Total</b>	<b>\$940,516.00</b>



### 13.1.4 Phase 2 Total Cost Summary (HGAC Discounted Price)

Pricing Summary	
Hardware/Equipment	\$484,609.00
Services/Civil	\$564,771.00
<ul style="list-style-type: none"> <li>▪ Project management</li> <li>▪ Installation and Optimization</li> <li>▪ External Subcontracting</li> <li>▪ Civil Work, Civil Related Hardware and Equipment</li> <li>▪ Subcontractor Provided Hardware and Equipment</li> <li>▪ Programming</li> <li>▪ ESS Support and Extended 24x7 Warranty</li> <li>▪ CCSi Staging</li> <li>▪ Engineering Services</li> <li>▪ SSI Integration Services</li> <li>▪ Upgrade Operations to Master Site</li> <li>▪ Shipping and Handling</li> </ul>	

### 13.1.5 Grand Total – Phase 1 and Phase 2

Pricing Summary	
Phase 1 Total with special discounts	\$348,615.00
Phase 2 Total with special discounts	\$940,516.00
Multiple Project Discount (Phase 1 and 2) Multiple Project Discount only if Williamson County executes both MCC 7500 5 position console expansion project and EOC Move/Expansion project together by Sept 28, 2010.	(\$90,000.00)
<b>GRAND TOTAL</b> <b>Price includes Phase 1, phase 2 and multiple project incentives</b>	<b>\$1,199,131.00</b>

### 13.1.6 Options (Not Included in Total Price)

Options	
VHF West Site Repeater	\$88,276.00
VPM Console Upgrades (Optional VPM price only valid if purchased with EOC project)	\$183,813.00







## Section 14. Terms and Conditions

Terms and Conditions are included on the following pages.

## **SYSTEM PURCHASE AGREEMENT**

THIS AGREEMENT ("Agreement"), made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2010 by and between Motorola Inc., a Delaware corporation duly authorized to conduct business in the State of Texas ("Motorola" or "Seller"), the Houston-Galveston Area Council, a body corporate and politic ("H-GAC") and Williamson County, Texas, a body corporate and politic ("Purchaser").

### **WITNESSETH:**

WHEREAS, the Purchaser desires to purchase a Communications System; and

WHEREAS, Motorola desires to sell 2 Communications Systems to Purchaser; and

WHEREAS, H-GAC, acting as the agent for various local governmental entities who are "End Users" under interlocal agreements (including the Purchaser) has solicited quotations for radio communications equipment and conducted discussions with Motorola concerning its proposal and, where applicable, in accordance with the competitive procurement procedures of Texas law; and

WHEREAS, H-GAC and Motorola entered into that certain Radio Communications Equipment & Systems Agreement dated as of January 1, 2008 (the "Contract"), which provided that End Users may purchase radio communications equipment from Motorola pursuant to certain terms contained therein; and

WHEREAS, pursuant to Article 34 of the Contract, Motorola and Purchaser now wish to enter into this System Purchase Agreement to delineate the specific terms of the purchase of radio communications equipment from Motorola by the Purchaser.

THEREFORE, the parties hereby enter into an agreement pursuant to which Motorola shall perform the work and furnish the equipment and services as more fully set forth herein and in the following exhibits, which are either attached hereto or incorporated by reference and hereby made a part of this Agreement:

- Exhibit A      General Provisions.
- Exhibit B      Motorola Software License Agreement.
- Exhibit C      Motorola's Statements of Work, System Descriptions, System Drawings, Project Schedules, Pricing Summary, and Equipment Lists all dated August 27, 2010.
- Exhibit D      Motorola/H-GAC Radio Communications Equipment & Systems Agreement dated January 1, 2008.
- Exhibit E      Above Warranty Services Statements of Work (the Warranty and Maintenance documents dated August 27, 2010) and Service Terms and Conditions

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, the parties agree as follows:

## **Section 1      SCOPE OF WORK**

A.      Motorola shall furnish all of the equipment as outlined in Exhibit C in 2 phases, each of which is a Communications System for purposes of this Agreement, and provide the tools, supplies, labor and supervision necessary for the installation of the items purchased in accordance with Exhibit C.

B.      In addition to responsibilities described in the Statement of Work, Purchaser shall perform the following coincident with the performance of this Agreement:

(1)      Provide a designated Project Director, which shall serve as liaison between the Williamson County Commissioner's Court and Motorola, as well as serve as the signatory for Purchaser,

(2)      Provide a designated Project Manager, which shall serve as a day to day point of contact for Purchaser.

(3)      Provide ingress and egress to Purchaser's facilities and/or sites as requested by Motorola and have such facilities available for installation of the equipment to be installed.

(4)      Provide adequate telephone lines (including modem access and adequate interfacing networking capabilities) for the installation and operation of the equipment.

(5)      Provide adequate AC Power at 117 VAC + 10%, 60 Hz for the installation and operation of the equipment.

(6)      Provide a designated work area with adequate heat and light, and a secure storage area for equipment delivered to the Purchaser. The Purchaser shall be solely liable for loss or damage to equipment prior to, during and following installation when such equipment is on or within Purchaser's facilities and/or vehicles.

## **Section 2      SITES**

This Agreement is predicated on the utilization of sites and site configurations, which have been selected either by the Purchaser or by Motorola as contained in the Motorola proposal. In either situation, should it be determined by either Motorola or Purchaser during the course of performance on this Agreement that the sites or configuration selected are no longer available or desired, new or replacement sites or configuration will be selected and approved by both Motorola and the Purchaser. If any price adjustments are necessary as a result of these new or replacement sites, such price adjustments will be added to this Agreement by change order in accordance with Section 4 of the General Provisions.

### **Section 3      SUBSURFACE/STRUCTURAL CONDITIONS**

This Agreement and the Motorola proposal are predicated upon normal soil conditions defined by E.I.A. standard RS-222 (latest revision). Should Motorola encounter subsurface, structural, and/or latent conditions at any site differing from those, indicated on the specifications, or as used in the preparation of the bid price, the Purchaser will be given immediate notice of such conditions before they are further disturbed. Thereupon, Motorola and the Purchaser shall promptly investigate the conditions and, if found to be different, will adjust the plans and/or specifications as may be necessary. Any changes that cause an adjustment in the contract price or in time required for the performance of any part of the contract shall result in a contract modification in accordance with Section 4 of the General Provisions.

### **Section 4      PERIOD OF PERFORMANCE**

A. Motorola projects that it will be able to obtain final acceptance and completion of the Acceptance Test Plan within 174 days after the contract is signed by all parties for phase 1 and within 225 days after the contract is signed by all parties for phase 2. A more detailed timeline shall be provided to Purchaser after the design review and customer kick-off meeting.

B. Whenever Motorola knows or reasonably should know that any actual or potential condition due to circumstances beyond its control is delaying or threatens to delay the timely performance of the work, Motorola shall within thirty (30) days give Purchaser notice thereof and may request an extension of time to perform the work.

C. In order to successfully integrate and implement this project, shipments will be made F.O.B. Destination to Purchaser facilities, local Motorola staging facilities, warehousing facilities, or any combination thereof. It is agreed that this plan is acceptable to Purchaser and that Motorola will advise prior to shipment of actual destination and that purchaser will accept shipment, and make payment as required by this Agreement.

D. It is also agreed that equipment shipping dates reflected in this agreement or in Motorola proposals are estimates only, and that shipment may be made at any time prior to, or subsequent to these estimated shipping dates.

### **Section 5      ACCEPTANCE CRITERIA**

A. Motorola will test the Communications System in accordance with the Acceptance Test Plan. System acceptance will occur upon the successful completion of such testing ("System Acceptance") at which time both parties shall promptly execute a certificate of system acceptance. If the Acceptance Test Plan includes separate tests for individual subsystems, both parties shall promptly execute certificates of subsystem acceptance upon the successful completion of testing of such subsystems. Minor omissions or variances in performance which do not materially affect the operation of the Communications System as a whole will not postpone System Acceptance. Purchaser and Motorola will jointly prepare a list of such omissions and variances which Motorola will correct according to an agreed upon schedule.

B. Motorola agrees to notify Purchaser when the Communications System is ready for acceptance testing. Motorola and Purchaser agree to commence acceptance testing within ten (10) business days after receiving such notification. If testing is delayed for reasons within the control of Purchaser or its employees, contractors, agents or consultants for more than ten (10) business days after notification, final payment will be due within thirty (30) days after such notification and the Warranty Period will commence immediately.

C. Motorola may, but is not obligated to, issue written authorization for Purchaser to use the Communications System or its subsystem(s) for limited training or testing purposes, prior to the completion of testing by Motorola. Any use of the Communications System without prior written authorization by Motorola shall constitute System Acceptance.

## **Section 6      PAYMENT SCHEDULE**

A. Provided Purchaser signs and delivers this Agreement to Motorola by September 28, 2010, Motorola agrees to sell all of the equipment and perform the services as outlined in the Scope of Work, and Purchaser agrees to buy the aforementioned equipment and services for the sum of **\$1,199,131.00**, set forth in Exhibit C, including the H-GAC administration fee. The final price may be adjusted by change orders approved pursuant to Statement of Work attached hereto as Exhibit "C".

B. For each of the 2 phases, payments to Motorola shall be made according to the following milestones:

1. 25% of the total phase price is due when we begin Detailed Design Review;
2. 40% of the total phase price will be invoiced immediately after the Equipment is shipped from Motorola's facilities;
3. 25% of the total phase price will be invoiced immediately after the Equipment is installed at the sites specified in the Exhibits; and
4. 10% of the total phase price will be invoiced immediately after System Acceptance.

C. In the event of failure or delay by the Purchaser in providing sites, space, approvals, licenses, or any other Purchaser obligations required preceding delivery of Motorola equipment, it is agreed that Motorola, at its sole discretion, may ship equipment as planned and that the Purchaser will accept the equipment and make payment in accordance with the terms of this Agreement. Any additional costs incurred by Motorola for storage of equipment will be invoiced and paid by Purchaser.

D. Payments to Motorola shall be made as follows:

- (i) Motorola shall immediately forward an invoice for the payment requested in Section 6(B) above to Purchaser.

- (ii) Purchaser shall pay the Motorola invoice within thirty (30) calendar days of receipt.

E. Payment of H-GAC's administrative fee:

Motorola will pay H-GAC in accordance with the payment terms of Contract No. RA01-08.

F. TERM. Unless terminated in accordance with other provisions of this Agreement or extended by mutual agreement of the Parties, the term of this Agreement begins on the date as set forth above and continues until the date of phase 2 Final Project Acceptance or expiration of the Warranty Period for phase 2, whichever occurs last.

## **Section 7 PROJECT MANAGEMENT**

A. If the size or complexity of the project warrants, Motorola will assign a Project Manager, who is authorized to exercise technical direction of this project. Motorola, at any time, may designate a new or alternate Project Manager with written notice to Purchaser and H-GAC.

B. All matters affecting the terms of this Agreement or the administration thereof shall be referred to Motorola's cognizant Contract Administrator who shall have authority to negotiate changes in or amendments to this Agreement.

## **Section 8 NOTICE ADDRESSES**

A. Motorola, Inc.  
6450 Sequence Drive  
San Diego, Ca 92121  
Attn.: Law Department

B. Williamson County (Purchaser)

Project Director for Purchaser:

John Sneed, Sr.  
Director of Williamson County Emergency Services  
P.O. Box 873  
Georgetown, TX 78627-0873

Project Manager for Purchaser:

Patrick Cobb  
Williamson County Emergency  
Communications Division Director  
508 S. Rock Street  
Georgetown, Texas 78626  
Office: 512-943-1206

Mobile: 512-677-1547  
Pager: 512-404-2670  
[pcobb@wilco.org](mailto:pcobb@wilco.org)

- C. Houston-Galveston Area Council  
3555 Timmons Lane, Suite 120  
Houston, Texas 77027  
Attn.: Public Services Manager

## **Section 9 ORDER OF PRECEDENCE**

In the event of an inconsistency in this Agreement, the inconsistency shall be resolved in the following order:

- Exhibit A General Provisions.
- Exhibit B Motorola Software License.
- Exhibit C Motorola's Statements of Work, System Descriptions, System Drawings, Project Schedules, Pricing Summary, and Equipment Lists.
- Exhibit E Above Warranty Services Statements of Work (the Warranty and Maintenance documents) and Service Terms and Conditions
- Exhibit D Motorola/H-GAC Radio Communications Equipment & Systems Agreement dated January 1, 2008.

## **Section 10 DISPUTES**

Motorola and the Purchaser will attempt to settle any claim or controversy arising out of this Agreement through consultation and negotiation in good faith and a spirit of mutual cooperation. If those attempts fail, then the dispute will be mediated by a mutually acceptable mediator to be chosen by Motorola and the Purchaser within thirty (30) days after written notice by one of the parties demanding non-binding mediation. Neither party may unreasonably withhold consent to the selection of a mediator, and Motorola and the Purchaser will share the cost of the mediation equally. By mutual agreement, however, Motorola and Purchaser may postpone mediation until both parties have completed some specified but limited discovery about the dispute. The parties may also agree to replace mediation with some other form of non-binding alternate dispute resolution procedure ("ADR").

Any dispute which cannot be resolved between the parties through negotiation or mediation within two (2) months of the date of the initial demand for it by one of the parties may then be submitted to a court of competent jurisdiction in Williamson County, Texas or in the Austin Division of the Western Federal District of Texas. Both Motorola and Purchaser consent to jurisdiction over it by such a court. The use of any ADR procedures will not be considered under the doctrine of laches, waiver or estoppel to affect adversely the rights of either party.

Nothing shall prevent either of the parties from resorting to the judicial proceedings mentioned in this paragraph if (a) good faith efforts to attempt resolution of the dispute under these procedures have been unsuccessful or (b) interim relief from the court is necessary to prevent serious and irreparable injury to one of the parties or others.

#### **Section 11     SEVERABILITY**

If any portion of this Agreement or any exhibits hereto is held to be invalid, such provision or portion of such provision shall be considered severable, and the remainder of this Agreement shall not be affected.

#### **Section 12     HEADINGS AND SECTION REFERENCES**

The headings given to the paragraphs are inserted for convenience only and are in no way to be construed as part of this Agreement or as a limitation of the scope of the particular paragraph to which the heading refers.

#### **Section 13     TERMINATION FOR CONVENIENCE**

Purchaser may terminate this Agreement for convenience and without cause or further liability upon thirty (30) days written notice to Motorola. In the event of such termination, it is understood and agreed that only the amounts due to Motorola for goods, commodities and/or services provided and expenses incurred to and including the date of termination, will be due and payable. No penalty will be assessed for County's termination of this Agreement for convenience.



## Section 14 FULL AGREEMENT

This Agreement and its Exhibits constitute the final expression of the agreement of the parties and supersedes all previous agreements and understandings, whether written or oral, relating to the work. This Agreement may not be altered, amended, or modified except by written instrument signed by duly authorized representatives of the parties.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the last day and year written below.

**MOTOROLA, INC.**

**PURCHASER**

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

Name: Edward Fuerst  
(Print - Block Letters)

Name: Dan A. Gattis  
(Print - Block Letters)

Title: MSSI Vice President & Director of Sales  
Government & Commercial Markets – Americas  
(Print - Block Letters)

Title: Williamson County Judge  
(Print - Block Letters)

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A  
GENERAL PROVISIONS  
MOTOROLA, INC.**

**Section 1      STANDARDS OF WORK**

Motorola agrees that the performance of work described in this Agreement and pursuant to this Agreement shall be done in a professional manner and shall conform to professional standards. All packaging and packing shall be in accordance with good commercial practice.

**Section 2      TAXES**

The prices set forth in the Agreement are exclusive of any amount for Federal, State or Local excise, sales, lease, gross income service, rental, use, property, occupation or similar taxes. If any taxes are determined applicable to this transaction or Motorola is required to pay or bear the burden thereof, the Purchaser agrees to pay to Motorola the amount of such taxes and any interest or penalty thereon no later than thirty (30) days after receipt of an invoice therefor.

**Section 3      SHIPPING, TITLE AND RISK OF LOSS**

All sales and deliveries are F.O.B. Destination. Motorola reserves the right to make deliveries in installments and the Agreement shall be severable as to such installments. Title to the equipment shall pass to the Purchaser upon receipt at the F.O.B. Destination. After delivery to the F.O.B. Destination, risk of loss and damage to the articles shall be borne by the Purchaser. The above notwithstanding, title to software and any third party supplied software shall not pass upon payment of the license fee therefor or under any circumstances.

**Section 4      CHANGES IN THE WORK**

A.      The Purchaser may, at any time, by written order, make changes within the general scope of the work, including but not limited to revisions of, or additions to, portions of the work, or changes in method of shipment or packaging and place of delivery.

B.      If any order under this Section 4 causes an increase or decrease in the cost of or time required for the performance of any part of the work under this Agreement, an equitable adjustment shall be made in the Agreement price or delivery schedule, or both, and the Agreement shall be modified in writing accordingly. Motorola is not obligated to comply with any order hereunder unless and until the parties reach agreement as to the aforementioned equitable adjustment and same is reflected as an addendum to this Agreement.

## **Section 5      LIMITATION OF LIABILITY**

Except for personal injury or death, Motorola's total liability whether for breach of contract, warranty, negligence, indemnification, strict liability in tort or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of the Equipment, Software, or services with respect to which losses or damages are claimed. IN NO EVENT WILL MOTOROLA BE LIABLE FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW. This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision.

## **Section 6      EXCUSABLE DELAYS**

A. Neither Motorola nor the Purchaser shall be responsible for delays or lack of performance resulting from acts beyond the reasonable control of the party or parties. Such acts shall include, but are not be limited to, acts of God; fire; strikes; material shortages; compliance with laws or regulations; riots; acts of war; or any other conditions beyond the reasonable control of the party or parties.

B. Delays as identified herein may cause an impact on the Period of Performance stated in the Agreement. Such delays will be subject to an Agreement addendum as described in Section 4.

## **Section 7      DEFAULT**

A. If Motorola is wholly responsible for failure to make delivery or complete installation under the Agreement, the Purchaser may consider Motorola to be in default, unless such failure has been caused by the conditions set forth in Section 6 of these General Provisions.

B. The Purchaser shall give Motorola written notice of such default and Motorola shall have thirty (30) days to provide a plan of action to cure the default. If Motorola fails to cure the default, the Purchaser may terminate any unfulfilled portion of this Agreement or complete the system through a third party. In the event the Purchaser completes the system through a third party, Motorola shall be responsible for an amount in excess of the Agreement price, not to exceed the value of the terminated portion, incurred by the Purchaser in completing the system to a capability not exceeding that specified in the Agreement. IN THE EVENT OF DEFAULT, MOTOROLA SHALL NOT BE LIABLE FOR ANY INCIDENTAL, LIQUIDATED, SPECIAL OR CONSEQUENTIAL DAMAGES.

## **Section 8      DELAYS BY PURCHASER**

If the Purchaser is responsible for delays which cause the installation and acceptance of this system, to be rescheduled beyond the Period of Performance set forth in the Agreement, the Purchaser shall be liable for actual costs incurred by Motorola resulting from these delays. Such charges may include, but are not limited to, additional Engineering; rescheduling charges; storage charges; maintenance charges; and transportation charges. The Purchaser shall have the option to attempt to minimize actual costs incurred by storing and transporting equipment at its own expense.

## **Section 9      LICENSES/AUTHORIZATION**

The Purchaser is solely responsible for obtaining any licenses or other authorizations required by the Federal Communications Commission and for complying with FCC rules. Neither Motorola nor any of its employees is an agent or representative of the Purchaser in FCC matters or otherwise. Motorola, however, may assist in the preparation of the license application at no charge to the Purchaser. Purchaser acknowledges that project implementation is predicated on receipt of proper FCC licensing.

## **Section 10     INDEMNIFICATION**

MOTOROLA AGREES TO AND HEREBY INDEMNIFIES AND SAVES PURCHASER AND/OR H-GAC HARMLESS FROM ALL LIABILITIES, JUDGMENTS, COSTS, DAMAGES AND EXPENSES WHICH MAY ACCRUE AGAINST, BE CHARGED TO, OR RECOVERED FROM THE PURCHASER AND/OR H-GAC BY REASON OF OR ON ACCOUNT OF DAMAGE TO THE TANGIBLE PROPERTY OF THE PURCHASER OR THE PROPERTY OF, INJURY TO, OR DEATH OF ANY PERSON, TO THE EXTENT AND IN THE PROPORTION THAT SUCH DAMAGE OR INJURY IS CAUSED BY MOTOROLA'S NEGLIGENT ACTS OR OMISSIONS OR THAT OF ITS EMPLOYEES, SUBCONTRACTORS, OR AGENTS WHILE ON THE PREMISES OF THE PURCHASER DURING THE DELIVERY AND INSTALLATION OF THE COMMUNICATIONS EQUIPMENT. IN NO EVENT WILL MOTOROLA BE LIABLE FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES.

## **Section 11     EQUIPMENT COMPATIBILITY; PRODUCT SUPPORT**

Motorola agrees that the equipment, will perform in accordance with the specifications and representations stated in Motorola's Proposal and Equipment List included in this Agreement. This Agreement does not extend to the performance of the equipment as a part of a larger system generally nor specifically to equipment in combination with products, elements or components not supplied by Motorola.

Motorola will use commercially reasonable efforts to provide replacement parts for Motorola manufactured subscriber equipment for five (5) years and for Motorola manufactured fixed infrastructure equipment for seven (7) years, both from the date of last manufacture. Motorola reserves the right to supply either assemblies or piece parts.

## **Section 12     WARRANTIES**

A.     **WARRANTY PERIOD.** Upon System Acceptance, the System Functionality representation described below is fulfilled. The Equipment and Motorola Software is warranted for a period of one (1) year after System Acceptance (“Warranty Period”) in accordance with the applicable limited warranties shown below. In no event will the warranty period last longer than eighteen (18) months after the Equipment and Software is shipped from Motorola. Purchaser must notify Motorola in writing if Equipment or Motorola Software does not conform to these warranties no later than one month after the expiration of the Warranty Period.

B.     **SYSTEM FUNCTIONALITY.** Motorola represents that the Communications System will satisfy the functional requirements in Exhibit C. Upon System Acceptance, this System Functionality representation is fulfilled. After System Acceptance, the Equipment Warranty set forth below and the Software Warranty set forth in the Software License Agreement will apply.

Motorola will not be responsible for performance deficiencies of the System caused by ancillary equipment not furnished by Motorola attached to or used in connection with the System provided hereunder. Additionally, Motorola will not be responsible for System performance when the functionality is reduced for reasons beyond Motorola’s control including, but not limited to, i) an earthquake, adverse atmospheric conditions or other natural causes; ii) the construction of a building that adversely affects the microwave path reliability or RF coverage; iii) the addition of additional frequencies at System sites that cause RF interference or intermodulation; iv) Purchaser changes to load usage and/or configuration outside the parameters specified in Exhibit C; v) any other act of parties who are beyond Motorola’s control, including Purchaser or its employees, contractors, consultants or agents.

C.     **EQUIPMENT WARRANTY.** Motorola warrants the Equipment against material defects in material and workmanship under normal use and service during the Warranty Period. Unless otherwise specified in writing, the Warranty Period for non-Motorola manufactured Equipment will be as stated in this Section. At no additional charge and at its option, Motorola will either repair the defective Equipment, replace it with the same or equivalent Equipment, or refund the purchase price of the defective Equipment, and such action on the part of Motorola will be the full extent of Motorola’s liability hereunder. Repaired or replaced Equipment is warranted for the balance of the original applicable warranty period. All replaced parts of the Equipment shall become the property of Motorola.

### **THIS WARRANTY DOES NOT APPLY TO**

- a)     Defects or damage resulting from use of the Equipment in other than its normal and customary manner.
- b)     Defects or damage occurring from misuse, accident, water or neglect.

- c) Defects or damage occurring from testing, maintenance, installation, alteration, modification, or adjustment not provided by Motorola pursuant to this Communications System Agreement.
- d) Breakage of or damage to antennas unless caused directly by defects in material or workmanship.
- e) Equipment that has been subjected to unauthorized modifications, disassembly or repairs (including the addition to the Equipment of non-Motorola supplied equipment if not authorized by Motorola) which adversely affect performance of the Equipment or interfere with Motorola's normal warranty inspection and testing of the Equipment to verify any warranty claim.
- f) Equipment that has had the serial number removed or made illegible.
- g) Batteries (because they carry their own separate limited warranty).
- h) Freight costs to the repair depot.
- i) Equipment that has been subject to illegal or unauthorized alteration of the software/firmware in the Equipment.
- j) Scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment.
- k) Software.
- l) Normal or customary wear and tear.

D. Motorola Software Warranty. Motorola Software is warranted in accordance with the terms of the Software License Agreement attached as Exhibit B.

E. These express limited warranties as set forth in this Section are extended by Motorola to the original end user purchasing or leasing the System for commercial, industrial, or governmental use only, and are not assignable or transferable. These are the complete warranties for the Equipment and Software provided pursuant to this Agreement.

F. THESE WARRANTIES ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE EQUIPMENT. IN NO

EVENT WILL MOTOROLA BE LIABLE FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE EQUIPMENT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

### **Section 13      CONFIDENTIAL INFORMATION**

Motorola proprietary computer programs will be released in accordance with the Software License provisions set forth elsewhere, if applicable. All other material and information of confidential nature marked Motorola PROPRIETARY and CONFIDENTIAL will be released as necessary under the following conditions:

- (1) Purchaser shall exercise reasonable and prudent measures to keep these items in confidence.
- (2) Purchaser shall not disclose these items to third parties without prior written permission, unless Motorola makes them public or Purchaser learns them rightfully from sources independent of Motorola, or it is required by law to be disclosed.
- (3) Motorola, where necessary, retains the right to prescribe specific security measures for the Purchaser to follow to maintain the confidentiality.

In the event disclosure of such information is necessary, a separate Non-Disclosure Agreement will be required.

### **Section 14      SOFTWARE LICENSE**

A. Motorola Software. Any Motorola Software furnished will be licensed to Purchaser solely according to the terms and restrictions of the Software License Agreement attached as Exhibit B. Purchaser hereby accepts all of the terms and restrictions of the Software License Agreement.

B. Non-Motorola Software. Any Non-Motorola Software furnished by Motorola will be subject to the terms and restrictions of its copyright owner unless such copyright owner has granted to Motorola the right to sublicense such Non-Motorola Software, in which case the Software License Agreement (including any addendum to satisfy such copyright owner's requirements) shall apply.

## **Section 15      PATENT INDEMNIFICATION**

Motorola will defend at its expense any suit brought against Customer to the extent it is based on a third party claim alleging that the Equipment manufactured by Motorola or the Motorola Software infringes upon the third party's United States patent or copyright ("Infringement Claim"), and Motorola will indemnify Customer for those costs and damages finally awarded against Customer for an Infringement Claim. Motorola's duties to defend and indemnify are conditioned upon: Customer promptly notifying Motorola in writing of the Infringement Claim; Motorola having sole control of the defense of the suit and all negotiations for its settlement or compromise; and Customer providing to Motorola cooperation and, if requested by Motorola, reasonable assistance in the defense of the Infringement Claim.

If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense procure for Customer the right to continue using the Equipment or Motorola Software, replace or modify it so that it becomes non-infringing while providing functionally equivalent performance, or grant Customer a credit for the Equipment or Motorola Software as depreciated and accept its return. The depreciation amount will be calculated based upon generally accepted accounting standards for such Equipment and Motorola Software.

Motorola will have no duty to defend or indemnify for any Infringement Claim that is based upon the combination of the Equipment or Motorola Software with any software, apparatus or device not furnished by Motorola; the use of ancillary equipment or software not furnished by Motorola and that is attached to or used in connection with the Equipment or Motorola Software; any Equipment that is not Motorola's design or formula; a modification of the Motorola Software by a party other than Motorola; or the failure by Customer to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. The foregoing states the entire liability of Motorola with respect to infringement of patents and copyrights by the Equipment, Motorola Software, or any of their parts.

## **Section 16      DISCLAIMER OF PATENT LICENSE**

Nothing contained in this Agreement shall be deemed to grant, either directly or by implication, estoppel, or otherwise, any license under any patents or patent applications of Motorola, except that Purchaser shall have the normal non-exclusive royalty-free license to use that is implied, or otherwise arises by operation of law, in the sale of a product.

## **Section 17      WAIVER**

Failure or delay on the part of Motorola or Purchaser to exercise right or power hereunder shall not operate as a waiver thereof.



## **Section 18 VENUE AND GOVERNING LAW**

Each party to this Agreement hereby agrees and acknowledges that venue and jurisdiction of any suit, right, or cause of action arising out of or in connection with this Agreement shall lie exclusively in either Williamson County, Texas or in the Austin Division of the Western Federal District of Texas, and the parties hereto expressly consent and submit to such jurisdiction. Furthermore, except to the extent that this Agreement is governed by the laws of the United States, this Agreement shall be governed by and construed in accordance with the laws of the State of Texas, excluding, however, its choice of law rules.

## **Section 19 ASSIGNABILITY**

The Agreement may not be assigned by any party hereto other than Motorola may assign this order to one of its Subsidiaries as in the normal course of business.

## **Section 20 MAINTENANCE SERVICE**

During the Warranty Period for the Equipment, in addition to warranty services, Motorola will provide maintenance services for the Equipment and support for the Motorola Software pursuant to the terms of this Agreement, including the Above Warranty Services Statements of Work (the Warranty and Maintenance documents) and Service Terms and Conditions. Such services and support are included in the Contract Price. If Customer wishes to purchase additional maintenance and support services for the Equipment during the Warranty Period, or any maintenance and support services for the Equipment after the Warranty Period, the description of and pricing for such services will be set forth in a separate document. If Customer wishes to purchase extended support for the Motorola Software after the Warranty Period, it may do so by ordering software subscription services. Unless otherwise agreed by the Parties in writing, the terms and conditions applicable to such maintenance, support or software subscription services will be Motorola's standard Service Terms and Conditions, together with the appropriate statements of work.

## **Section 21 RELATIONSHIP OF THE PARTIES**

Each party to this Agreement, in the performance of this Agreement, shall act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

## **Section 22 NO WAIVER OF IMMUNITIES**

Nothing in this Agreement shall be deemed to waive, modify or amend any legal defense available at law or in equity to Purchaser, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. Purchaser

does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

### **Section 23 PURCHASER'S RIGHT TO AUDIT**

Motorola agrees that Purchaser or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy, except for Motorola Confidential and Proprietary Information, such as, but not limited to, cost data, any and all books, documents, papers and records of Motorola which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Motorola agrees that Purchaser shall have access during normal working hours to all necessary Motorola facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Purchaser shall give Motorola reasonable advance notice of intended audits.

### **Section 24 NON-APPROPRIATION AND FISCAL FUNDING**

The obligations of the parties under this Agreement do not constitute a general obligation or indebtedness of either party for which such party is obligated to levy, pledge, or collect any form of taxation. It is understood and agreed that Purchaser shall have the right to terminate this Agreement at the end of any Williamson County fiscal year if the governing body of Purchaser does not appropriate sufficient funds as determined by Purchaser's budget for the fiscal year in question. Purchaser may effect such termination by giving written notice of termination at the end of its then-current fiscal year. However, Purchaser represents that sufficient funds have been encumbered for this project.

### **Section 25 PAYMENT, INTEREST AND LATE PAYMENTS**

Purchaser's payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. Invoices shall be paid by Purchaser within thirty (30) days from the date of the Williamson County Auditor's receipt of an invoice. Interest charges for any late payments shall be paid by Purchaser in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of Purchaser's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday. In the event that a discrepancy arises in relation to an invoice, such as an incorrect amount on an invoice or a lack of documentation that is required to be attached to an invoice to evidence the amount claimed to be due, Purchaser shall notify Motorola of the discrepancy. Following Purchaser's notification of any discrepancy as to an invoice, Motorola must resolve the discrepancy and resubmit a corrected or revised invoice, which includes all required support documentation, to the Williamson County Auditor. Purchaser shall pay the invoice within thirty (30) days from the date of the Williamson

County Auditor's receipt of the corrected or revised invoice. Purchaser's payment of an invoice that contains a discrepancy shall not be considered late, nor shall any interest begin to accrue until the thirty-first (31<sup>st</sup>) day following the Williamson County Auditor's receipt of the corrected or revised invoice.

## **Section 26 TEXAS PUBLIC INFORMATION ACT**

To the extent, if any, that any provision in this Agreement is in conflict with Tex. Gov't Code 552.001 et seq., as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that Purchaser, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any items or data furnished to Purchaser as to whether or not the same are available to the public. It is further understood that Purchaser's officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that Purchaser, its officers and employees shall have no liability or obligation to any party hereto for the disclosure to the public, or to any person or persons, of any items or data furnished to Purchaser by a party hereto, in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

## **Section 27 INSURANCE**

During the term of this Agreement, Motorola agrees to provide and maintain the following insurance:

- A. Worker's Compensation in accordance with statutory requirements.
- B. Commercial General Liability Insurance with a combined minimum Bodily Injury and Property Damage limits of \$1.0 Million per occurrence and \$2.0 Million in the aggregate, including coverage on same for independent subcontractor(s). PURCHASER SHALL BE LISTED AS AN ADDITIONAL INSURED UNDER THIS COVERAGE.
- C. Business Automobile Liability Insurance for all owned, non-owned, and hired vehicles with combined minimum limits for Bodily Injury and Property Damage limits of \$1.0 Million per occurrence and \$2.0 Million in the aggregate. Motorola shall require any subcontractor(s) to provide Automobile Liability Insurance in the same minimum amounts.

Motorola shall not commence any field work under this Agreement until it has obtained all required insurance and such insurance has been approved by Purchaser. Motorola shall not allow any subcontractor(s) to commence work to be performed in connection with this Agreement until all required insurance has been obtained and approved. Approval of the insurance by Purchaser shall not relieve or decrease the liability of Motorola hereunder.

The required insurance must be written by a company approved to do business in the State of Texas with a financial standing of at least an A- rating, as reflected in Best's insurance ratings or by a similar rating system recognized within the insurance industry at the time the policy is issued. Motorola shall furnish Purchaser with a certification of coverage issued by the insurer. Motorola shall not cause any insurance to be canceled nor permit any insurance to lapse. ALL INSURANCE CERTIFICATES SHALL INCLUDE A CLAUSE TO THE EFFECT THAT THE POLICY SHALL NOT BE CANCELED OR REDUCED, RESTRICTED OR LIMITED DURING THIS AGREEMENT.

It is the intention of the Purchaser, and agreed to and hereby acknowledged by Motorola, that no provision of this Agreement shall be construed to require the Purchaser to submit to mandatory arbitration or mediation in the settlement of any claim, cause of action or dispute, except as specifically required in direct connection with an insurance claim or threat of claim under an insurance policy required by this Agreement which absolutely requires arbitration or mediation of such claim, or as otherwise required by law or a court of law with jurisdiction over the provisions of this Agreement.

## **SECTION 28 DAMAGE TO PROPERTY**

Should Motorola or Motorola's agents, employees, contractors or representatives, in the performance of the services hereunder, ever damage property where the services are performed or within areas adjoining such property, whether it be real or personal property, Motorola shall be liable for such damage and shall be obligated to [promptly](#) repair the damaged property [as close as reasonably practicable](#) to its prior condition.

## **Exhibit B**

### **Software License Agreement**

This Exhibit B, Software License Agreement ("Agreement") is between Motorola, Inc., ("Motorola"), and Williamson County, Texas, a body corporate and politic ("Licensee").

For good and valuable consideration, the parties agree as follows:

#### **Section 1            DEFINITIONS**

1.1        "Designated Products" means products provided by Motorola to Licensee with which or for which the Software and Documentation is licensed for use.

1.2        "Documentation" means product and software documentation that specifies technical and performance features and capabilities, and the user, operation and training manuals for the Software (including all physical or electronic media upon which such information is provided).

1.3        "Open Source Software" means software with either freely obtainable source code, license for modification, or permission for free distribution.

1.4        "Open Source Software License" means the terms or conditions under which the Open Source Software is licensed.

1.5        "Primary Agreement" means the agreement to which this exhibit is attached.

1.6        "Security Vulnerability" means a flaw or weakness in system security procedures, design, implementation, or internal controls that could be exercised (accidentally triggered or intentionally exploited) and result in a security breach such that data is compromised, manipulated or stolen or the system damaged.

1.7        "Software" (i) means proprietary software in object code format, and adaptations, translations, de-compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third party software provided under separate license or third party software not licensable under the terms of this Agreement.

#### **Section 2            SCOPE**

Motorola and Licensee enter into this Agreement in connection with Motorola's delivery of certain proprietary Software or products containing embedded or pre-loaded proprietary Software, or both. This Agreement contains the terms and conditions of the license Motorola is providing to Licensee, and Licensee's use of the Software and Documentation.

#### **Section 3            GRANT OF LICENSE**

3.1.       Subject to the provisions of this Agreement and the payment of applicable license fees, Motorola grants to Licensee a personal, limited, non-transferable (except as permitted in Section 7) and non-exclusive license under Motorola's copyrights and Confidential Information (as defined in the Primary Agreement) embodied in the Software to use the Software, in object code form, and the Documentation solely in connection with Licensee's use of the Designated Products. This Agreement does not grant any rights to source code.

3.2. If the Software licensed under this Agreement contains or is derived from Open Source Software, the terms and conditions governing the use of such Open Source Software are in the Open Source Software Licenses of the copyright owner and not this Agreement. If there is a conflict between the terms and conditions of this Agreement and the terms and conditions of the Open Source Software Licenses governing Licensee's use of the Open Source Software, the terms and conditions of the license grant of the applicable Open Source Software Licenses will take precedence over the license grants in this Agreement. If requested by Licensee, Motorola will use commercially reasonable efforts to: (i) determine whether any Open Source Software is provided under this Agreement; (ii) identify the Open Source Software and provide Licensee a copy of the applicable Open Source Software License (or specify where that license may be found); and, (iii) provide Licensee a copy of the Open Source Software source code, without charge, if it is publicly available (although distribution fees may be applicable).

## **Section 4            LIMITATIONS ON USE**

4.1. Licensee may use the Software only for Licensee's internal business purposes and only in accordance with the Documentation. Any other use of the Software is strictly prohibited. Without limiting the general nature of these restrictions, Licensee will not make the Software available for use by third parties on a "time sharing," "application service provider," or "service bureau" basis or for any other similar commercial rental or sharing arrangement.

4.2. Licensee will not, and will not allow or enable any third party to: (i) reverse engineer, disassemble, peel components, decompile, reprogram or otherwise reduce the Software or any portion to a human perceptible form or otherwise attempt to recreate the source code; (ii) modify, adapt, create derivative works of, or merge the Software; (iii) copy, reproduce, distribute, lend, or lease the Software or Documentation to any third party, grant any sublicense or other rights in the Software or Documentation to any third party, or take any action that would cause the Software or Documentation to be placed in the public domain; (iv) remove, or in any way alter or obscure, any copyright notice or other notice of Motorola's proprietary rights; (v) provide, copy, transmit, disclose, divulge or make the Software or Documentation available to, or permit the use of the Software by any third party or on any machine except as expressly authorized by this Agreement; or (vi) use, or permit the use of, the Software in a manner that would result in the production of a copy of the Software solely by activating a machine containing the Software. Licensee may make one copy of Software to be used solely for archival, back-up, or disaster recovery purposes; *provided* that Licensee may not operate that copy of the Software at the same time as the original Software is being operated. Licensee may make as many copies of the Documentation as it may reasonably require for the internal use of the Software.

4.3. Unless otherwise authorized by Motorola in writing, Licensee will not, and will not enable or allow any third party to: (i) install a licensed copy of the Software on more than one unit of a Designated Product; or (ii) copy onto or transfer Software installed in one unit of a Designated Product onto one other device. Licensee may temporarily transfer Software installed on a Designated Product to another device if the Designated Product is inoperable or malfunctioning, if Licensee provides written notice to Motorola of the temporary transfer and identifies the device on which the Software is transferred. Temporary transfer of the Software to another device must be discontinued when the original Designated Product is returned to operation and the Software must be removed from the other device. Licensee must provide prompt written notice to Motorola at the time temporary transfer is discontinued.

4.4. When using Motorola's Radio Service Software ("RSS"), Licensee must purchase a separate license for each location at which Licensee uses RSS. Licensee's use of RSS at a licensed location does not entitle Licensee to use or access RSS remotely. Licensee may make one copy of RSS for each licensed location. Licensee shall provide Motorola with a list of all locations at which Licensee uses or intends to use RSS upon Motorola's request.

4.5. Licensee will maintain, during the term of this Agreement and for a period of two years thereafter, accurate records relating to this license grant to verify compliance with this Agreement. Motorola or an independent third party ("Auditor") may inspect Licensee's premises, books and records, upon reasonable

prior notice to Licensee, during Licensee's normal business hours and subject to Licensee's facility and security regulations. Motorola is responsible for the payment of all expenses and costs of the Auditor. Any information obtained by Motorola and the Auditor will be kept in strict confidence by Motorola and the Auditor and used solely for the purpose of verifying Licensee's compliance with the terms of this Agreement.

## **Section 5 OWNERSHIP AND TITLE**

Motorola, its licensors, and its suppliers retain all of their proprietary rights in any form in and to the Software and Documentation, including, but not limited to, all rights in patents, patent applications, inventions, copyrights, trademarks, trade secrets, trade names, and other proprietary rights in or relating to the Software and Documentation (including any corrections, bug fixes, enhancements, updates, modifications, adaptations, translations, de-compilations, disassemblies, emulations to or derivative works from the Software or Documentation, whether made by Motorola or another party, or any improvements that result from Motorola's processes or, provision of information services). No rights are granted to Licensee under this Agreement by implication, estoppel or otherwise, except for those rights which are expressly granted to Licensee in this Agreement. All intellectual property developed, originated, or prepared by Motorola in connection with providing the Software, Designated Products, Documentation or related services, remains vested exclusively in Motorola, and Licensee will not have any shared development or other intellectual property rights.

## **Section 6 LIMITED WARRANTY; DISCLAIMER OF WARRANTY**

6.1. The commencement date and the term of the Software warranty will be a period of ninety (90) days from Motorola's shipment of the Software (the "Warranty Period"). If Licensee is not in breach of any of its obligations under this Agreement, Motorola warrants that the unmodified Software, when used properly and in accordance with the Documentation and this Agreement, will be free from a reproducible defect that eliminates the functionality or successful operation of a feature critical to the primary functionality or successful operation of the Software. Whether a defect occurs will be determined by Motorola solely with reference to the Documentation. Motorola does not warrant that Licensee's use of the Software or the Designated Products will be uninterrupted, error-free, completely free of Security Vulnerabilities, or that the Software or the Designated Products will meet Licensee's particular requirements. Motorola makes no representations or warranties with respect to any third party software included in the Software.

6.2 Motorola's sole obligation to Licensee and Licensee's exclusive remedy under this warranty is to use reasonable efforts to remedy any material Software defect covered by this warranty. These efforts will involve either replacing the media or attempting to correct significant, demonstrable program or documentation errors or Security Vulnerabilities. If Motorola cannot correct the defect within a reasonable time, then at Motorola's option, Motorola will replace the defective Software with functionally-equivalent Software, license to Licensee substitute Software which will accomplish the same objective, or terminate the license and refund the Licensee's paid license fee.

6.3. Warranty claims are described in the Primary Agreement.

**6.4. The express warranties set forth in this Section 6 are in lieu of, and Motorola disclaims, any and all other warranties (express or implied, oral or written) with respect to the Software or Documentation, including, without limitation, any and all implied warranties of condition, title, non-infringement, merchantability, or fitness for a particular purpose or use by Licensee (whether or not Motorola knows, has reason to know, has been advised, or is otherwise aware of any such purpose or use), whether arising by law, by reason of custom or usage of trade, or by course of dealing. In addition, Motorola disclaims any warranty to any person other than Licensee with respect to the Software or Documentation.**

## **Section 7 TRANSFERS**

Licensee will not transfer the Software or Documentation to any third party without Motorola's prior written consent. Motorola's consent may be withheld at its discretion and may be conditioned upon transferee paying all applicable license fees and agreeing to be bound by this Agreement. If the Designated Products are Motorola's radio products and Licensee transfers ownership of the Motorola radio products to a third party, Licensee may assign its right to use the Software (other than RSS and Motorola's FLASHport® software) which is embedded in or furnished for use with the radio products and the related Documentation; *provided* that Licensee transfers all copies of the Software and Documentation to the transferee, and Licensee and the transferee sign a transfer form to be provided by Motorola upon request, obligating the transferee to be bound by this Agreement.

## **Section 8 TERM AND TERMINATION**

8.1 Licensee's right to use the Software and Documentation will begin when the Primary Agreement is signed by both parties and will continue for the life of the Designated Products with which or for which the Software and Documentation have been provided by Motorola, unless Licensee breaches this Agreement, in which case this Agreement and Licensee's right to use the Software and Documentation may be terminated immediately upon notice by Motorola.

8.2 Within thirty (30) days after termination of this Agreement, Licensee must certify in writing to Motorola that all copies of the Software have been removed or deleted from the Designated Products and that all copies of the Software and Documentation have been returned to Motorola or destroyed by Licensee and are no longer in use by Licensee.

8.3 Licensee acknowledges that Motorola made a considerable investment of resources in the development, marketing, and distribution of the Software and Documentation and that Licensee's breach of this Agreement will result in irreparable harm to Motorola for which monetary damages would be inadequate. If Licensee breaches this Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity (including immediate injunctive relief and repossession of all non-embedded Software and associated Documentation unless Licensee is a Federal agency of the United States Government).

## **Section 9 UNITED STATES GOVERNMENT LICENSING PROVISIONS**

This Section applies if Licensee is the United States Government or a United States Government agency. Licensee's use, duplication or disclosure of the Software and Documentation under Motorola's copyrights or trade secret rights is subject to the restrictions set forth in subparagraphs (c)(1) and (2) of the Commercial Computer Software-Restricted Rights clause at FAR 52.227-19 (JUNE 1987), if applicable, unless they are being provided to the Department of Defense. If the Software and Documentation are being provided to the Department of Defense, Licensee's use, duplication, or disclosure of the Software and Documentation is subject to the restricted rights set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 (OCT 1988), if applicable. The Software and Documentation may or may not include a Restricted Rights notice, or other notice referring to this Agreement. The provisions of this Agreement will continue to apply, but only to the extent that they are consistent with the rights provided to the Licensee under the provisions of the FAR or DFARS mentioned above, as applicable to the particular procuring agency and procurement transaction.

## **Section 10 CONFIDENTIALITY**

Licensee acknowledges that the Software and Documentation contain Motorola's valuable proprietary and Confidential Information and are Motorola's trade secrets, and that the provisions in the Primary Agreement concerning Confidential Information apply.



## **Section 11        LIMITATION OF LIABILITY**

The Limitation of Liability provision is described in the Primary Agreement.

## **Section 12        NOTICES**

Notices are described in the Primary Agreement.

## **Section 13        GENERAL**

13.1.    **COPYRIGHT NOTICES.** The existence of a copyright notice on the Software will not be construed as an admission or presumption of publication of the Software or public disclosure of any trade secrets associated with the Software.

13.2.    **COMPLIANCE WITH LAWS.** Licensee acknowledges that the Software is subject to the laws and regulations of the United States and Licensee will comply with all applicable laws and regulations, including export laws and regulations of the United States. Licensee will not, without the prior authorization of Motorola and the appropriate governmental authority of the United States, in any form export or re-export, sell or resell, ship or reship, or divert, through direct or indirect means, any item or technical data or direct or indirect products sold or otherwise furnished to any person within any territory for which the United States Government or any of its agencies at the time of the action, requires an export license or other governmental approval. Violation of this provision is a material breach of this Agreement.

13.3.    **ASSIGNMENTS AND SUBCONTRACTING.** Motorola may assign its rights or subcontract its obligations under this Agreement, or encumber or sell its rights in any Software, without prior notice to or consent of Licensee.

13.4.    **GOVERNING LAW.** This Agreement is governed by the laws of the United States to the extent that they apply and otherwise by the internal substantive laws of the State to which the Software is shipped if Licensee is a sovereign government entity, or the internal substantive laws of the State of Illinois if Licensee is not a sovereign government entity. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a party's performance under this Agreement, UCITA does not govern any aspect of this Agreement or any license granted under this Agreement, or any of the parties' rights or obligations under this Agreement. The governing law will be that in effect prior to the applicability of UCITA.

13.5.    **THIRD PARTY BENEFICIARIES.** This Agreement is entered into solely for the benefit of Motorola and Licensee. No third party has the right to make any claim or assert any right under this Agreement, and no third party is deemed a beneficiary of this Agreement. Notwithstanding the foregoing, any licensor or supplier of third party software included in the Software will be a direct and intended third party beneficiary of this Agreement.

13.6.    **SURVIVAL.** Sections 4, 5, 6.3, 7, 8, 9, 10, 11 and 13 survive the termination of this Agreement.

13.7.    **ORDER OF PRECEDENCE.** In the event of inconsistencies between this Exhibit and the Primary Agreement, the parties agree that this Exhibit prevails, only with respect to the specific subject matter of this Exhibit, and not the Primary Agreement or any other exhibit as it applies to any other subject matter.

13.8    **SECURITY.** Motorola uses reasonable means in the design and writing of its own Software and the acquisition of third party Software to limit Security Vulnerabilities. While no software can be guaranteed to be free from Security Vulnerabilities, if a Security Vulnerability is discovered, Motorola will take the steps set forth in Section 6 of this Agreement.

13.9 TEXAS PUBLIC INFORMATION. To the extent, if any, that any provision in this Agreement is in conflict with Tex. Gov't Code 552.001 et seq., as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that Licensee, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any items or data furnished to Licensee as to whether or not the same are available to the public. It is further understood that Licensee's officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that Licensee, its officers and employees shall have no liability or obligation to any party hereto for the disclosure to the public, or to any person or persons, of any items or data furnished to Licensee by a party hereto, in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

## **Exhibit C**

### **Technical and Implementation Documents**

**Exhibit D**

**Motorola/H-GAC Radio Communications Equipment & Systems Agreement**

## **Exhibit E**

### **Service Terms and Conditions**

Motorola, Inc. ("Motorola") and the customer named in this Agreement ("Customer") hereby agree as follows:

#### **Section 1      APPLICABILITY**

These Service Terms and Conditions apply to service contracts whereby Motorola will provide to Customer either (1) maintenance, support and/or other services under a Motorola Service Agreement, or (2) installation services under a Motorola Installation Agreement.

#### **Section 2      DEFINITIONS AND INTERPRETATION**

2.1 "Agreement" means these Service Terms and Conditions; the cover page for the Service Agreement or the Installation Agreement, as applicable; and any other attachments, all of which are incorporated herein by this reference. In interpreting this Agreement and resolving any ambiguities, these Service Terms and Conditions take precedence over any cover page, and the cover page takes precedence over any attachments, unless the cover page or attachment states otherwise.

2.2 "Equipment" means the equipment that is specified in the attachments or is subsequently added to this Agreement.

2.3 "Services" means those installation, maintenance, support, training, and other services described in this Agreement.

#### **Section 3      ACCEPTANCE**

Customer accepts these Service Terms and Conditions and agrees to pay the prices set forth in the Agreement. This Agreement becomes binding only when accepted in writing by Motorola. The term of this Agreement begins on the "Start Date" indicated in this Agreement.

#### **Section 4      SCOPE OF SERVICES**

4.1. Motorola will provide the Services described in this Agreement or in a more detailed statement of work or other document attached to this Agreement. At Customer's request, Motorola may also provide additional services at Motorola's then-applicable rates for the services.

4.2. If Motorola is providing Services for Equipment, Motorola parts or parts of equal quality will be used; the Equipment will be serviced at levels set forth in the manufacturer's product manuals; and routine service procedures that are prescribed by Motorola will be followed.

4.3. If Customer purchases from Motorola additional equipment that becomes part of the same system as the initial Equipment, the additional equipment may be added to this Agreement and will be billed at the applicable rates after the warranty for the additional equipment expires.

4.4. All Equipment must be in good working order on the Start Date or when additional equipment is added to the Agreement. Upon reasonable request by Motorola, Customer will provide a complete serial and model number list of the Equipment. Customer must promptly notify Motorola in writing when any Equipment is lost, damaged, stolen or taken out of service. Customer's obligation to pay Service fees for such Equipment will terminate at the end of the month in which Motorola receives the written notice.

4.5. Customer must specifically identify any Equipment that is labeled intrinsically safe for use in hazardous environments.

4.6. If Equipment cannot, in Motorola's reasonable opinion, be properly or economically serviced for any reason, Motorola may modify the scope of Services related to such Equipment; remove that Equipment from the Agreement; or increase the price to Service such Equipment.

4.7. Customer must promptly notify Motorola of any Equipment failure. Motorola will respond to Customer's notification in a manner consistent with the level of Service purchased as indicated in this Agreement.

## **Section 5 EXCLUDED SERVICES**

5.1. Service excludes the repair or replacement of Equipment that has become defective or damaged from use in other than the normal, customary, intended, and authorized manner; use not in compliance with applicable industry standards; excessive wear and tear; or accident, liquids, power surges, neglect, acts of God or other force majeure events.

5.2. Unless specifically included in this Agreement, Service excludes items that are consumed in the normal operation of the Equipment, such as batteries or magnetic tapes.; upgrading or reprogramming Equipment; accessories, belt clips, battery chargers, custom or special products, modified units, or software; and repair or maintenance of any transmission line, antenna, microwave equipment, tower or tower lighting, duplexer, combiner, or multicoupler. Motorola has no obligations for any transmission medium, such as telephone lines, computer networks, the internet or the worldwide web, or for Equipment malfunction caused by such transmission medium.

## **Section 6 TIME AND PLACE OF SERVICE**

Service will be provided at the location specified in this Agreement. When Motorola performs service at Customer's location, Customer will provide Motorola, at no charge, a non-hazardous work environment with adequate shelter, heat, light, and power and with full and free access to the Equipment. Waivers of liability from Motorola or its subcontractors will not be imposed as a site access requirement. Customer will provide all information pertaining to the hardware and software elements of any system with which the Equipment is interfacing so that Motorola may perform its Services. Unless otherwise stated in this Agreement, the hours of Service will be 8:30 a.m. to 4:30 p.m., local time, excluding weekends and holidays. Unless otherwise stated in this Agreement, the price for the Services exclude any charges or expenses associated with helicopter or other unusual access requirements; if these charges or expenses are reasonably incurred by Motorola in rendering the Services, Customer agrees to reimburse Motorola for those charges and expenses provided that Customer consents, in advance and in writing, to the performance of services involving a helicopter or other unusual access requirements.

## **Section 7 CUSTOMER CONTACT**

Customer's Project Manager, as identified in the System Purchaser Agreement, will be available twenty-four (24) hours per day, seven (7) days per week, and an escalation procedure to enable Customer's personnel to maintain contact, as needed, with Motorola.

## **Section 8 PAYMENT**

Customer's payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. Invoices shall be paid by Customer within thirty (30) days from the date of the Williamson County Auditor's receipt of an invoice. Interest charges for any late payments shall be paid by Customer in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of Customer's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday. In the event that a discrepancy arises in relation to an invoice, such as an incorrect amount on an invoice or a lack of documentation that is required to be attached to an invoice to evidence the amount claimed to be due, Customer shall notify

Motorola of the discrepancy. Following Customer's notification of any discrepancy as to an invoice, Motorola must resolve the discrepancy and resubmit a corrected or revised invoice, which includes all required support documentation, to the Williamson County Auditor. Customer shall pay the invoice within thirty (30) days from the date of the Williamson County Auditor's receipt of the corrected or revised invoice. Customer's payment of an invoice that contains a discrepancy shall not be considered late, nor shall any interest begin to accrue until the thirty-first (31<sup>st</sup>) day following the Williamson County Auditor's receipt of the corrected or revised invoice. Customer will reimburse Motorola for all property taxes, sales and use taxes, excise taxes, and other taxes or assessments that are levied as a result of Services rendered under this Agreement (except income, profit, and franchise taxes of Motorola) by any governmental entity.

## **Section 9      WARRANTY**

Motorola warrants that its Services related to a phase under this Agreement will be free of defects in materials and workmanship for a period of one (1) year from the date of Final Acceptance for such phase. In the event of a breach of this warranty, Customer's sole remedy is to require Motorola to re-perform the non-conforming Service or to refund, on a pro-rata basis, the fees paid for the non-conforming Service. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## **Section 10     DEFAULT/TERMINATION**

10.1. If either party defaults in the performance of this Agreement, the other party will give to the non-performing party a written and detailed notice of the default. The non-performing party will have thirty (30) days thereafter to provide a written plan to cure the default that is acceptable to the other party and begin implementing the cure plan immediately after plan approval. If the non-performing party fails to provide or implement the cure plan, then the injured party, in addition to any other rights available to it under law, may immediately terminate this Agreement effective upon giving a written notice of termination to the defaulting party.

10.2. Any termination of this Agreement will not relieve either party of obligations previously incurred pursuant to this Agreement, including payments which may be due and owing at the time of termination. All sums owed by Customer to Motorola will become due and payable immediately upon termination of this Agreement. Upon the effective date of termination, Motorola will have no further obligation to provide Services.

## **Section 11     LIMITATION OF LIABILITY**

Except for personal injury or death, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of twelve (12) months of Service provided under this Agreement. ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS; INCONVENIENCE; LOSS OF USE, TIME, DATA, GOOD WILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS AGREEMENT OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THIS AGREEMENT. This limitation of liability will survive the expiration or termination of this Agreement and applies notwithstanding any contrary provision.

## **Section 12      EXCLUSIVE TERMS AND CONDITIONS**

12.1. This Agreement supersedes all prior and concurrent agreements and understandings between the parties, whether written or oral, related to the Services, and there are no agreements or representations concerning the subject matter of this Agreement except for those expressed herein. The Agreement may not be amended or modified except by a written agreement signed by authorized representatives of both parties.

12.2. Customer agrees to reference this Agreement on any purchase order issued in furtherance of this Agreement, however, an omission of the reference to this Agreement will not affect its applicability. In no event will either party be bound by any terms contained in a Customer purchase order, acknowledgement, or other writing unless: the purchase order, acknowledgement, or other writing specifically refers to this Agreement; clearly indicate the intention of both parties to override and modify this Agreement; and the purchase order, acknowledgement, or other writing is signed by authorized representatives of both parties.

## **Section 13      PROPRIETARY INFORMATION; CONFIDENTIALITY; INTELLECTUAL PROPERTY RIGHTS**

13.1. Any information or data in the form of specifications, drawings, reprints, technical information or otherwise furnished to Customer under this Agreement will remain Motorola's property, will be deemed proprietary, will be kept confidential, and will be promptly returned at Motorola's request. Customer may not disclose, without Motorola's written permission or as required by law, any confidential information or data to any person, or use confidential information or data for any purpose other than performing its obligations under this Agreement. The obligations set forth in this Section survive the expiration or termination of this Agreement.

13.2. Unless otherwise agreed in writing, no commercial, financial or technical information disclosed in any manner or at any time by Customer to Motorola will be deemed secret or confidential. Motorola will have no obligation to provide Customer with access to its confidential and proprietary information, including cost and pricing data.

13.3. This Agreement does not grant directly or by implication, estoppel, or otherwise, any ownership right or license under any Motorola patent, copyright, trade secret, or other intellectual property including any intellectual property created as a result of or related to the Equipment sold or Services performed under this Agreement.

## **Section 14      FCC LICENSES AND OTHER AUTHORIZATIONS**

Customer is solely responsible for obtaining licenses or other authorizations required by the Federal Communications Commission or any other federal, state, or local government agency and for complying with all rules and regulations required by such agencies. Neither Motorola nor any of its employees is an agent or representative of Customer in any governmental matters.

## **Section 15      INTENTIONALLY DELETED**

## **Section 16      MATERIALS, TOOLS AND EQUIPMENT**

All tools, equipment, dies, gauges, models, drawings or other materials paid for or furnished by Motorola for the purpose of this Agreement will be and remain the sole property of Motorola. Customer will safeguard all such property while it is in Customer's custody or control, be liable for any loss or damage to this property, and return it to Motorola upon request. This property will be held by Customer for Motorola's use without charge and may be removed from Customer's premises by Motorola at any time without restriction.



## **Section 17      GENERAL TERMS**

17.1. If any court renders any portion of this Agreement unenforceable, the remaining terms will continue in full force and effect.

17.2. This Agreement and the rights and duties of the parties will be governed and interpreted in accordance with the laws of the State in which the Services are performed.

17.3. Failure to exercise any right will not operate as a waiver of that right, power, or privilege.

17.4. Neither party is liable for delays or lack of performance resulting from any causes that are beyond that party's reasonable control, such as strikes, material shortages, or acts of God.

17.5. Motorola may assign its rights and obligations, and may subcontract any portion of its performance, under this Agreement.

17.6. INTENTIONALLY DELETED.

17.7. If Motorola provides Services after the termination or expiration of this Agreement, the terms and conditions in effect at the time of the termination or expiration will apply to those Services and Customer agrees to pay for those services on a time and materials basis at Motorola's then effective hourly rates.

17.8 Each party to this Agreement, in the performance of this Agreement, shall act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

17.9 Nothing in this Agreement shall be deemed to waive, modify or amend any legal defense available at law or in equity to Purchaser, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. Purchaser does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

17.10 Motorola agrees that Purchaser or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of Motorola which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Motorola agrees that Purchaser shall have access during normal working hours to all necessary Motorola facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Purchaser shall give Motorola reasonable advance notice of intended audits.

17.11 The obligations of the parties under this Agreement do not constitute a general obligation or indebtedness of either party for which such party is obligated to levy, pledge, or collect any form of taxation. It is understood and agreed that Purchaser shall have the right to terminate this Agreement at the end of any Williamson County fiscal year if the governing body of Purchaser does not appropriate sufficient funds as determined by Purchaser's budget for the fiscal year in question. Purchaser may effect such termination by giving written notice of termination at the end of its then-current fiscal year.



## Section 15. Product Literature

Product Literature is included on the following pages.



# ***MCC 7500 IP Dispatch Console***

For ASTRO® 25 Radio Systems



***MCC 7500 Console is specifically designed for Mission Critical***



## The Motorola MCC 7500 Dispatch IP Console

Seamlessly integrated into ASTRO 25 radio networks, the MCC 7500 Console provides interoperability, cost, savings, and security advantages for today's critical communication needs. MCC 7500 consoles connect directly to the IP network without interface boxes, digital voice gateways, or backroom electronics for an integrated mission critical network. Conventional channels link to the IP network and use the same audio transport as trunked audio.



### Integrated With ASTRO®25 Networks

Motorola IP systems are optimized to perform to robust customer specifications for Mission Critical voice and data communications. ASTRO 25 complies with Project 25 interoperability specifications while network interfaces based on standard IP bring additional value to the network. MCC 7500 IP Console provides:

- Emergency calls prioritized to get through no matter how busy the network.
- Voice quality and intelligibility optimized to eliminate clipped or degraded audio.
- High quality audio maintained despite increasing traffic loads.
- Calls set up in a fraction of a second, regardless of the size of the system.
- Voice messages consistently delivered in the shortest possible times.
- Call traffic quickly re-routed in the event of an IP network path failure, minimizing lost audio and any impact on the end user.
- Dispatch performance enhanced and bandwidth efficiency improved by using IP multicast technology.
- Conventional channels link to the IP network using the same audio transport as trunked audio.
- Simplified dispatch operations and optimized operational efficiencies when integrated with PremierOne™ CAD.

**Meets your demand to**



# Mission Critical IP communication.



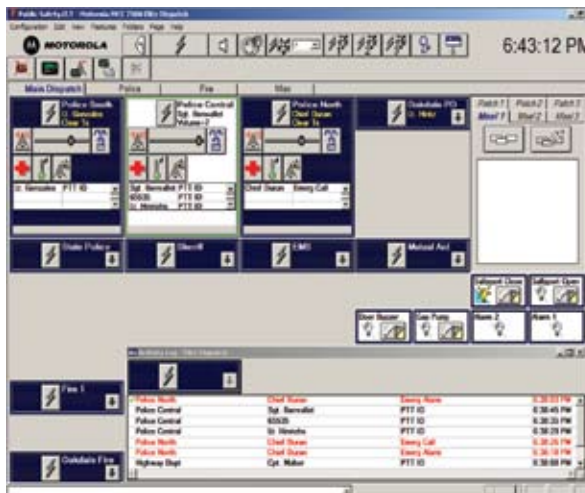
**True End to End Encryption** from the radio all the way through the console position. The MCC 7500 Dispatch Console goes beyond vocoded audio and uses true encryption technology, the only reliable means to keep your critical communication secure. Each MCC 7500 console supports up to 4 encryption algorithms simultaneously.

With **Agency Partitioning**, departments or agencies can share a system for cost savings and interoperability, yet manage and maintain control over their own resources, such as talkgroups, encryption keys, and configuration data.

**Centralized Network Configuration and Fault Management** dispatch positions allow changes to be automatically distributed throughout the system, providing vital efficiency. Access to the network manager from multiple remote locations via standard IP methods means users can still have convenient access while enjoying the benefits of centralized management.

**Enhanced, Integrated Logging Recorder** is available for the MCC 7500 Console providing digital recorded audio at the same high quality level as heard through the dispatch positions. Digital recorders integrated into the radio system reap the benefits of agency partitioning, centralized management and network security, meeting a wide range of ASTRO 25 customer requirements.

**PremierOne™ CAD Integration** further simplifies dispatch operations, improves data accuracy and enhances operational efficiencies by combining the common, intuitive user interface of PremierOne CAD with the reliable field personnel communications capabilities of the MCC 7500. Agencies that choose to integrate the MCC 7500 Console features with the PremierOne CAD common platform will gain the ability to automate common operations and get a real-time, comprehensive view of the personnel and equipment being supported in the field.



## Customer Accepted Interface

Efficient, easy to use and intuitive, having been refined and proven through years of use in public safety dispatch centers around the world.

protect, prevent and respond to Mission Critical operations.

## MCC 7500 Console

### Command and Control Solutions Designed Around You

The MCC 7500 IP Dispatch Console is part of Motorola's extensive portfolio of communications and information solutions designed to address mission-critical public safety and security requirements worldwide. The MCC 7500 dispatch solution meets Motorola's rigorous quality standards to bring you the peace of mind you need in an emergency operation.

- Compatible with existing ASTRO 25 radio systems with forward migration to protect and leverage your investment.
- Software-based upgrades ease system and feature expansion. Re-use of the Elite Graphical User Interface (GUI) helps minimize dispatcher training.
- Works together with CENTRACOM® Elite console providing robust feature interaction.
- Installation is simplified and site costs are reduced since the console operator position functions without backroom electronics.
- Console configuration is performed at a centralized Network Manager client, with changes distributed automatically, saving valuable technician and administrator time.
- More robust service logs, containing real-time information, facilitate maintenance activities.
- Integration into the system's central fault standard event monitoring protocols, means fewer site visits.
- Flexible bandwidth requirements minimize operating costs for all remote console locations.
- Conventional audio is transported by the same IP network, eliminating the need for channel banks or a separate circuit switch network.

### MOTOA4 Portfolio

The MCC 7500 IP Dispatch console operates within an ASTRO 25 network and is part of the MOTOA4 Mission Critical portfolio of products — offering seamless connectivity between the officer in the field and the dispatcher. The MCC 7500 puts real-time information in the hands of public safety personnel providing better information for better decisions. It's Technology That's Second Nature™.



**MOTOROLA**

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# MCC 7500

## IP Dispatch Console



The Motorola MCC 7500 IP Dispatch Console is designed to ease the complex job of a mission critical radio system dispatcher.

### **Easy to Use, Flexible, and Customizable User Interface**

Features the Elite Graphical User Interface (GUI) that has been refined and proven through years of use in mission critical dispatch operations. This

eases migration and minimizes user training requirements.

Intuitive and familiar GUI is based on Microsoft Windows® and uses easily recognized icons and aliases.

Flexible and customizable GUI provides multiple screen layouts (folders) to organize resources by agency, shift, or any criteria that meets the needs of the console user(s).

Trunked and conventional radio channels are customizable with various controls, such as patch status, frequency select, coded/clear select, and individual volume control, based on user preferences. Per-channel controls can be fully or partially shown, or hidden to save space on the screen.

Busy dispatchers can respond to a missed call by simply clicking on an entry in the Activity Log.

The number of calls and call information displayed in the Activity Log is customizable to suit the needs of the user(s).

The status of auxiliary inputs and outputs is conveniently interpreted from the GUI with the use of familiar graphical icons, such as a door shown open or closed.

The MCC 7500 Dispatch Console is a Mission Critical IP command and control solution designed to ensure optimal quality audio and reliable communication. Console positions are connected directly to the IP network which supports communication with both trunked and conventional radios and all other dispatch

activity. Integration of the MCC 7500 positions with the radio system enables full participation in end-to-end voice encryption for secure communication, priority handling of emergency calls, and Agency Partitioning. Each console is centrally configured and managed from the network manager, providing vital efficiency.

## SPECIFICATION SHEET

MCC 7500  
IP Dispatch Console

### Operator Position Components



Voice Processor Module



Gooseneck Microphone



**Recommended Plantronics SupraPlus headset pictured. Two headsets are accommodated by the MCC 7500 Headset Jack box (not shown), which is useful for supervisory applications.**



**Standalone Speakers provide ample flexibility.**

**Optional Footswitch not pictured**

### Key Interoperability Features

**Works with CENTRACOM Gold Elite™:** The MCC 7500 console can be combined in the same dispatch center with CENTRACOM Gold Elite, with robust feature interaction.

**Agency Partitioning:** Allows multiple agencies to share a system to gain interoperability and cost savings benefits, while still maintaining control of their own channels, encryption keys, console configuration, etc.

**Priority for Emergencies:** Transmit Priority Levels provide an orderly and consistent method for ensuring higher priority

transmissions are able to take over resources from lower priority transmissions.

**Optimized Patch Functionality:** MCC 7500 console users can patch communication between trunked and/or conventional radios that are normally unable to communicate with each other.

Patched radio users see the ID or alias of the other patched radio(s), as opposed to that of the console. This minimizes confusion and the need for the dispatcher to intervene in the call.

Patches are automatically re-established if interrupted so the MCC 7500 user can concentrate on

continuing operations.

**Enhanced Secure Operation:** Encryption and decryption services within each dispatch operation position enable dispatchers to fully participate in secure communications while keeping the sensitive, vital information completely encrypted between the dispatcher and the radio users.

Dispatchers can interface with agencies that have different encryption configurations without any manual intervention or delay. Up to 60 calls using up to four different algorithms and multiple secure keys can be supported simultaneously.

To help reduce dispatcher stress and potential errors when managing encrypted audio situations, indicators and alerts are provided when the console mode does not match that of a received call; or when a patch or multi-select group is being set up between a mix of clear and secure channels.

**Integrates with Motorola PremierOne™ CAD:** The MCC 7500 can be integrated with the Motorola PremierOne CAD common platform and intuitive user interface to simplify dispatch operations, improve data accuracy and enhance operational efficiencies.

### *The MCC 7500 dispatch solution consists of the following:*

#### **MCC 7500 Dispatch Console Operator Position**

MCC 7500 operator positions connect directly to the radio system's IP transport network without gateways or interface boxes. Audio processing, encryption, and switching intelligence for dispatch is performed within each software-based operator position, without additional centralized electronics. Consoles function as integrated components of the total radio system, enabling full participation in system level features such as end-to-end encryption and agency partitioning.

Operator position hardware consists of a monitor, personal computer, keyboard and mouse/trackball/touchscreen, speakers, audio accessories, and a Voice Processor Module (VPM). The VPM provides connections for analog devices to be connected to the digital console. The low-profile VPM can be rack mounted, furniture mounted, or placed on the desktop.

The MCC 7500 console system does not require separate configuration or performance management equipment. The MCC 7500 console system is configured and managed by the radio system's configuration manager, fault manager and performance reporting applications. This provides the customer with a single point for configuring

and managing the entire radio system. Changes are automatically distributed throughout the system. This centralized approach saves valuable time and efforts for system administrators and technicians.

#### **Conventional Channel Gateway (CCGW)**

The CCGW enables trunked system users to incorporate analog conventional channels into their dispatch operations without a separate hardware network and channel banks. Conventional audio is transported between the dispatch consoles and the CCGWs by the same IP network that is used for the trunked audio. The CCGW provides E&M and tone remote station control and supports the 4-wire analog connections for conventional. Each CCGW in a system can support up to four analog channels.

#### **Digital CCGW (DCCGW)**

The DCCGW enables trunked system users to incorporate ASTRO 25 conventional channels into their dispatch operations without a separate hardware network and channel banks. ASTRO 25 conventional audio is transported by the same IP network used for the trunked radio. The DCCGW provides digital control of the station via a V.24 connection. Each DCCGW can support up to two ASTRO 25 conventional channels.



## SPECIFICATION SHEET

MCC 7500  
IP Dispatch Console

### Auxiliary Input/Output Server

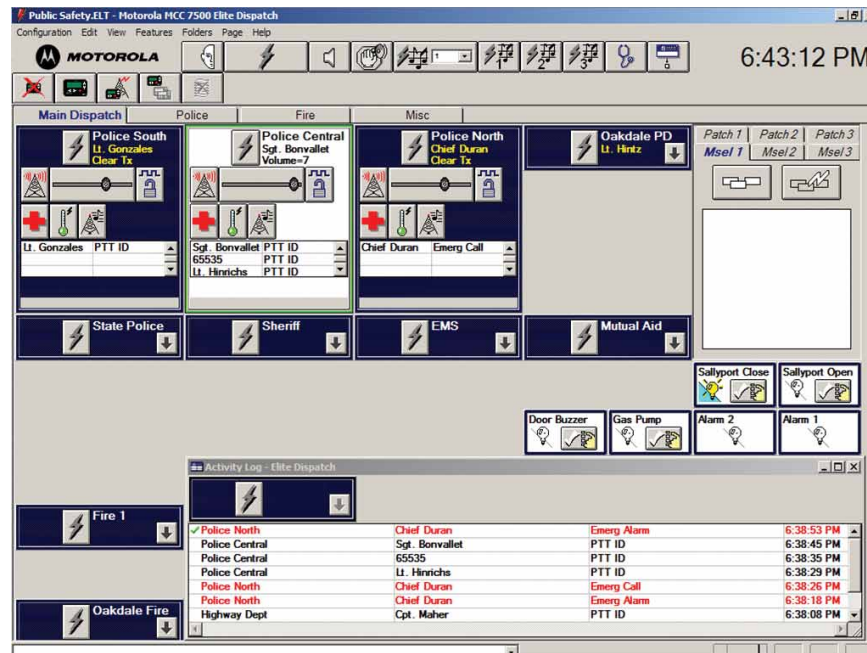
The Auxiliary Input/Output server enables console operators to control and monitor external devices, such as doors and lights, from the console user interface. Since the MCC 7500 Dispatch Console does not rely on centralized electronics, contact closures and input buffers required to interface to these devices are housed in Remote Terminal Units (RTUs). These RTUs can be physically located close to where they are needed, at any console site or RF site. The dispatch consoles and RTUs communicate with each other across the radio system's IP transport network.

### Archiving Interface Server (AIS)

The AIS is a digital logging interface, comprised of a personal computer and a VPM. Each AIS works with an IP-based logging recorder. Audio and call control information is sent across the IP network between

the AIS and recorder. Highly configurable, the MCC 7500 logging solution includes:

- Recorded audio quality equivalent to audio heard at console position
- Information associated with radio calls recorded in addition to the call audio.
- Dispatcher and radio initiated events on radio channels (such as changing the frequency, sending an alarm) are recorded.
- Recorder capacity based on the number of radio transmissions it will need to record simultaneously, not on the number of channels it may record.
- Supports Agency Partitioning, enhancing control over which resources are recorded by which agency or department.
- Security and fault management centralized at the radio system's network manager.



The MCC 7500 Dispatch Console connects directly to the IP network without interface boxes, digital voice gateways, or backroom electronics, providing your organization with important interoperability and cost savings for today's Mission Critical operations.

## SPECIFICATION SHEET

MCC 7500  
IP Dispatch Console

### SPECIFICATIONS

System Compatibility	ASTRO® 25 System and PremierOne™ CAD Application	
Vocoder Algorithms supported	AMBE, IMBE, ACELP, G.728 (for Analog Conventional)	
Encryption Algorithms supported	AES (256 bit), DES-OFB, DVI-XL, ADP (Advanced Digital Privacy)	
Monitor requirements		
With Mouse or Trackball	17" minimum, 20" recommended	
Touchscreen	20" minimum	
Voice Processor Module (VPM) connections	Device	Connector type
	One desktop microphone	RJ45
	Two headset jacks connectors	DB15
	Four desktop speakers	RJ45
	One local logging recorder	RJ45
	One radio instant recall recorder	RJ45
	One external telephone set	RJ45
	One external paging encoder	RJ45
	One footswitch	RJ45
VPM mounting options	EIA 19" rack mount, console furniture mount, Desktop – supports monitor up to 80 lbs	
VPM audio inputs and outputs	600 Ohm, balanced and transformer coupled (except for microphone which is 2000 Ohm, balanced, and does not use a transformer)	
Speaker Mounting Options	Desktop, furniture mount, or wall mount (with bracket accessory)	
Dispatch Console Cable Lengths	VPM to Speaker cable	10.1 feet (3.09 meters) standard
	VPM to Headset Jack cable	6 feet (1.8 meters) standard
	Headset Jack Extension cable	6 feet (1.8 meters) standard
	VPM to Microphone cable	10 feet (3.05 meters) standard
	VPM to Footswitch cable	10 feet (3.05 meters) standard
Supported Console Site Link types	Fractional T1/E1, Single T1/E1, Multiple T1/E1s Redundant and non-redundant versions are supported IP site links	
MCC 7500 Dispatch Console Capacities	Up to 60 simultaneous audio sessions per console Up to 60 simultaneous encryption/decryption sessions per secure capable console Up to 3 Multi-Select groups per dispatch console (with up to 20 members per Multi-Select group) Up to 16 Patch groups per dispatch console (with up to 20 members per Patch group) 160 resources per operator position	
Conventional Channel Gateway (CCGW)	Rack mountable, 1 rack unit high T1R1, T2R2, T4R4, T8R8, T12R12, T14R14 channels Each CCGW provides four RJ45 connector ports for interfacing to analog conventional base stations. Each port contains the following inputs and outputs: <ul style="list-style-type: none"> <li>• 600 Ohm, balanced analog audio input – To accept radio audio from the station</li> <li>• 600 Ohm, balanced analog audio output – To send console transmit audio to the station</li> <li>• Input buffer – To detect Carrier Operated Relay (COR) closure in the station</li> <li>• 1 Amp, 24 VDC relay output – For relay keying of the station</li> </ul> Can be configured to support AGC, DLM, or no input conditioning	
Digital Conventional Channel Gateway (DCCGW)	Rack mountable, 1 rack unit high T1R1, T2R2, T4R4, T8R8, T12R12, T14R14 Each DCCGW provides two RJ45 connector ports for interfacing to ASTRO 25 conventional base stations V.24 to station or comparator. No Digital Interface Unit (DIU) required	

## SPECIFICATION SHEET

MCC 7500  
IP Dispatch Console

### SPECIFICATIONS *(cont'd)*

#### Auxiliary Input/Output

##### Server Hardware

A simplified, user-friendly version of the MOSCAD SDM 3000 RTU is used to support most MCC 7500 dispatch console Aux I/O needs.

The output relays are capable of switching 1A @ 24VDC or 1A @ 24VAC.

Input buffers are capable of sensing a dry closure through 1000 feet or less (round trip) of 24 AWG wire.

The RTU provides single pole Form A relay outputs. (Double pole, Form B or Form C relays must be implemented using external relays which are controlled by the RTU relays.)

Auxiliary Input/Output Capacities	Number of Output Relays	Number of Input Buffers
Single SDM 3000 RTU	16	48
Single SDM 3000 RTU with 1 expansion chassis	32	96
Single SDM 3000 RTU with 2 expansion chassis	48	144

#### Auxiliary Input/Output Mounting

Each SDM 3000 RTU and each SDM 3000 RTU Expansion Chassis is rack mountable in a standard 19 inch rack and is one rack unit high.

SIZE AND WEIGHT	DEVICE	HEIGHT	WIDTH	DEPTH	WEIGHT
	VPM	1.75 inches 44.5 millimeters	16.9 inches 430 millimeters	12.3 inches 312 millimeters	3.6 lbs 1.6 kg
	Speaker	4.9 inches 124 millimeters	4 inches 102 millimeters	Without bracket: 3.5 inches 89 millimeters With bracket: 5.8 inches 146 millimeters	0.7 lbs 0.3 kg
	Headset Jack	1.6 inches 41 millimeters	5 inches 127 millimeters	6 inches 152 millimeters	1.2 lbs 0.5 kg
	Microphone	Gooseneck at 90°: 4.5 inches 114 millimeters Gooseneck at 180°: 21.8 inches 552 millimeters	4.8 inches 121 millimeters	6.6 inches 168 millimeters	2.4 lbs 1.1 kg

### POWER CONSUMPTION AND THERMAL

Device	Power Input	Thermal Output
VPM	0.4 Amps at 120VAC 0.2 Amps at 240VAC	171 BTUs/hour
Speaker	Add 0.05 Amps per speaker to VPM power Input at 120VAC (0.025 Amps at 240VAC)	Add 15 BTUs/hour per speaker to VPM thermal output
Headset Jack	negligible	negligible
Microphone	negligible	negligible

## SPECIFICATION SHEET

MCC 7500  
IP Dispatch Console

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### CERTIFICATIONS

	The various hardware elements of the Motorola MCC 7500 dispatch console product line are certified to meet the requirements for UL, CSA and CE.
Safety	CSA 60950-1-03 / UL 60950-1 EN60950-1 2001
EMC Emissions & Immunity	FCC part 15 Class A ICES-003 EN55022 1998 + A1: 2001 + A2:2003 (CISPR-22 Class A) EN55024 + A1:2001 + A2:2003 EN61000-3-2 2000 EN61000-3-3 1995 + A1:2001



**MOTOROLA**

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