



L3HARRIS™

L3Harris Technologies, Inc
PSPC Division
221 Jefferson Ridge Parkway
Lynchburg, VA 24501
FEDERAL ID # 34-0276860

INVOICE

PO#65x2623
Line 16 - final for line

SEND PAYMENT TO:
L3HARRIS TECHNOLOGIES, INC
PO Box 419436
Boston, MA 02241-9436

Bank of America - ABA 111000012 (ACH); 026009593 (FED WIRE)
L3HARRIS ACCOUNT 4451124230
SWIFT CODE: BOFAUS3N
For all inquires, please contact:
Damon Ross
434-455-9318
PAYMENT TERMS
Net 30

ACCOUNT NUMBER 15155	SALES ORDER NUMBER	PURCHASE ORDER NUMBER	INVOICE DATE 2/11/2022	INVOICE NUMBER WASHOE0211202203CM
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BILL TO

Washoe County Comptroller, AP
1001 E. Ninth Street, Room D-200
Reno, NV 89512
(775) 328-2552

APTeam@washoecounty.us

SHIP TO

Washoe County, Technology Services
1001 E. Ninth Street, Room C-220
Reno, NV 89512
(775) 328-2352

ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	EXTENDED AMOUNT
1	Microwave (Change Order 8) - Completion of Frequency Coordination and FCC Licensing	1	\$233,172.74	\$233,172.74
AMENDED INVOICE				
<p><i>The items above are sold for use in the U.S. only. Any export may require prior authorization by the U.S. Government. The purchaser solely is responsible for complying with all U.S. export licensing requirements.</i></p>				SUBTOTAL \$233,172.74
				TAX AMOUNT \$0.00
				TOTAL AMOUNT \$233,172.74

Taylor, Heather (US) - PSPC

From: Alfaqeeh, Riley (US) - PSPC
Sent: Thursday, January 6, 2022 11:42 AM
To: Lawney, Melissa; Byerly, John
Cc: Taylor, Heather (US) - PSPC
Subject: MW Licensing

All,

Just as an FYI, I checked the FCC license applications for the microwave system. Of all the applications that were submitted, everything has been granted. The only licenses left to submit are for the Fox to Yellow modifications.

Hope you all are having a great week and great start to the new year!

RILEY ALFAQEEH
SYSTEMS ENGINEER
COMMUNICATION SYSTEMS | L3HARRIS TECHNOLOGIES
Cell: (503) 508-9291
Riley.Alfaqeeh@L3Harris.com



**CHANGE
ORDER**

1001 E. NINTH STREET
 RENO, NEVADA 89512
 PHONE: (775) 328-23052
 FAX: (775) 328-3699

PROJECT:	Washoe County – Nevada Shared Radio System	CHANGE ORDER NO.:	8
		DATE:	09/22/2020
SELLER:	Harris Corporation Communication Systems Segment	CONTRACT DATE:	September 27, 2018
SELLER ADDRESS:	221 Jefferson Ridge Parkway Lynchburg, VA 24501		

When submitting this Change Order, submit/attach changes including all supporting documentation as required by the System Purchase Agreement between Washoe County and Harris Corporation Communication Systems Segment, dated September 27, 2018, to this form.

Change Summary:

This Change Order No. 8 to the Agreement (this "Change Order") is effective as of September 22, 2020 (the "Change Order Effective Date"), by and between Washoe County ("Washoe") and L3Harris Technologies, Inc., formerly known as Harris Corporation, ("L3Harris"), and supplements that certain System Purchase Agreement, dated 09/27/2018 as amended by Change Orders 1 through 7 (the "Agreement").

Capitalized terms used but not defined herein shall have the meaning assigned thereto in the Agreement.

For and in consideration of the mutual covenants and conditions contained herein, and for other good and valuable consideration, receipt of which each party hereby acknowledges, Washoe and L3Harris agree to modify the Agreement as set forth more fully herein and in the Change Order No. 8 Detailed Description, attached hereto and incorporated herein as Exhibit A, and the Change Order No. 8 Pricing and Scope of Work, attached hereto and incorporated herein as Exhibit B. This Change Order, together with all attachments hereto, is hereby incorporated into and made part of the Agreement as if fully set forth therein.

The terms and conditions of the Agreement, except as amended herein, shall remain in full force and effect.

The parties have caused this Change Order to be executed as of the Change Order Effective Date.

CHANGE ORDER



1001 E. NINTH STREET
 RENO, NEVADA 89512
 PHONE: (775) 328-23052
 FAX: (775) 328-3699

Schedule and contract value changes:

The Contract Time will be (increased) by		0	days.
Original (Contract Sum) was	\$	26537510.68	
Net change by previously authorized Change Orders	\$	18204	
The (Contract Sum) prior to this Change Order was	\$	26555714.68	
The (Contract Sum) will be (increased) by this Change Order in the amount of	\$	0	
The new Contract Sum including this Change Order will be	\$	26555714.68	

Site civils remaining allocation changes:

Total (Original plus Change Orders) Site Civils Allocation was	\$	7033223.40
Net change by previous Civils Change Orders was	\$	4186652.45
The remaining Site Civils Allocation prior to this Change Order was	\$	2846570.95
The total Site Civils expenditure authorized by this Change Order is	\$	2,331,727.35
The new remaining Site Civils Allocation will be	\$	514,843.60

SIGNATURES

SELLER

**Harris Corporation acting through its
 Communication Systems Segment**

BY DocuSigned by:
Robert Post
A006DBE8A634493...
 NAME Robert Post

TITLE Program Manager

DATE 9/28/2020

BY DocuSigned by:
Jeremy S. Roe
655EF1D741C4428...
 NAME Jeremy S. Roe

TITLE Contract Manager

DATE 9/25/2020

BUYER

Washoe County

BY DocuSigned by:
Mark Stewart
6B0346E435F747A...
 NAME Mark Stewart
 TITLE Purchasing and Contract Manager

DATE 9/28/2020

BY DocuSigned by:
Quinn Korbulic
AC55298D139049B...
 NAME Quinn Korbulic
 TITLE Chief Information Officer

DATE 9/28/2020

BY DocuSigned by:
Paul Burr
5154767F2F6E448...
 NAME Paul Burr
 TITLE IT Manager

DATE 9/28/2020

EXHIBIT A

Change Order No. 8 Detailed Description

1. Overview of change order and justification

- (a) The Agreement establishes, within the Total Agreement Price, an option for Washoe to procure from L3Harris certain Project Site Civil Infrastructure (the "Project Site Civils") and Microwave Infrastructure (the "Microwave Infrastructure") (collectively, the "Site Civils and Microwave Option"). The Site Civils and Microwave Option is funded in the Agreement by an allowance of \$7,033,223.40 (collectively, the "Site Civils and Microwave Allowance").
- (b) The Site Civils and Microwave Allowance is comprised of \$4,796,577.70 for the development of new and existing Project Sites (less \$322,048 which was previously set aside for Site Management and Site Surveys and for which Washoe has already received an invoice) at a budget of \$4,474,530.00 (the "Site Civils Allowance"); and \$2,236,645.70 for the supply of the microwave backhaul systems (the "Microwave Allowance").
- (c) Because the detailed scope of work was not fully known at the time of the execution of the Agreement, Washoe and L3Harris contemplated this Change Order after microwave path studies were completed and further site requirements were developed, resulting in refinements to the scope and price needed to meet Washoe's requirements the ("Microwave Design Modifications").
- (d) The Microwave Design Modifications account for an increase of \$95,081.65 over the Microwave Allocation (the "Microwave Design Modifications Price").
- (e) To maintain the project schedule, Washoe and L3Harris believe it is in their best interest now to execute the Microwave Infrastructure portion of the Site Civils and Microwave Option by this Change Order to authorize L3Harris supply the Microwave Infrastructure on the terms and conditions contained herein.
- (f) Unrelated elements of the Site Civils and Microwave Allowance are the subject of separate change orders.
- (g) Accordingly, the scope of this Change Order is to amend the Agreement to modify the Original Microwave Infrastructure Scope of Work (as defined herein below) and to execute that portion of the Site Civils and Microwave Option respecting the Microwave Infrastructure, agreed as follows.

2. Detail change description

- (a) For purposes of this Change Order, the Original Microwave Infrastructure Pricing means the following sections of this Agreement only:
 - (i) Exhibit A, Exhibit 6: Price Schedule, page 1, Table B.1.C – Microwave Equipment, Software, and Licensing; and
 - (ii) The Microwave Equipment, Software, and Licensing pricing on page 3, Table B.8 and page 49, Table B.11.C, in respect of the following sites, each of which is further detailed in the site-specific pricing page contained in Table B.8: NOC (A/K/A Spectrum), Biltmore-Tahoe, Snowflake Lodge-Tahoe, Slide Mountain, Mount Rose, Red Peak-Metro, Peavine Ridge-Metro (NCRN), Virginia Peak, Marble Bluff, Poito WC (Valley), Fox WC, Chimney Peak, 49 Mountain, Yellow

Peak, Red Rock, Truckee Station 18 (A/K/A Cold Springs), Smokey Quartz, and Ophir Peak.

- (b) For purposes of this Change Order, the Original Microwave Infrastructure Scope of Work means the following sections of the Agreement only:
- (i) Exhibit A, Exhibit 1: Statement of Work, System Description, page 2, first paragraph, beginning with the words “Microwave System” in bold type; and
 - (ii) Exhibit A, Exhibit 1: Statement of Work, System Description, pages 32-35, beginning at the section heading “Microwave System” and ending at the conclusion of the last full paragraph before the section heading “Dispatch Console System”.
- (c) Except as set forth above in this change order, to the extent other sections of the Agreement which refer to microwave-related tasks or pricing, including but not limited to the General and Site Development Matrices appearing in Exhibit A, Exhibit 3: Responsibility Matrix, pages 5-30, such references are not modified by this Change Order.
- (a) The Original Microwave Infrastructure Pricing is hereby deleted in its entirety and replaced with the Microwave Infrastructure Pricing, Revision 1, attached and incorporated herein as Exhibit B, Schedule 1.
- (b) The Original Microwave Infrastructure Scope of Work is hereby deleted in its entirety and replaced with the Microwave Infrastructure Scope of Work, Revision 1, attached hereto and incorporated herein as Exhibit B, Schedule 2.
- (c) Washoe hereby authorizes L3Harris to supply the Microwave Infrastructure to Washoe County in accordance with the Microwave Infrastructure Pricing, Revision 1, not to exceed \$2,331,727.35 (such price, the “Microwave Infrastructure Purchase Price”) which is the sum of the Microwave Allocation and the Microwave Design Modifications Price.
- (d) In consideration of the Microwave Infrastructure Purchase Price, L3Harris shall supply the Microwave Infrastructure in accordance with the Microwave Infrastructure Scope of Work, Revision 1, as set forth herein.
- (e) Notwithstanding Section 9(A)(2) of the Agreement, which establishes monthly invoicing for the payment of the Microwave Infrastructure, Washoe shall pay and L3Harris shall invoice in accordance with the Microwave Infrastructure Milestone Payment Schedule attached hereto as Exhibit B, Schedule 3.
- (f) Recognizing that the scope and pricing contained in this Change Order result from the Microwave Design Modifications not known at the time of the execution of the Agreement, to the extent the scope of work or the price set forth in this Change Order differs from the scope of work or the price contained in the Agreement, the scope of work and price set forth in this Change Order shall govern and have precedence.
- (g) Though the Microwave Infrastructure Purchase Price establishes a not-to-exceed amount, the final price to be paid by Washoe will be the sum of the actual costs of L3Harris to perform such Services plus markup of 25% on Third-Party Materials and 32% on Third-Party Labor in accordance with Section 6(B)(4) of the Agreement; provided, however, that the final price shall not exceed the Microwave Infrastructure Purchase Price unless such allowance is increased by mutually agreed change order.

- (h) Notwithstanding the reasonable efforts of L3Harris and Washoe to develop a detailed scope of work for the supply of the Microwave Infrastructure, changes to that scope may arise in the course of performing under this Change Order that impact upon price or schedule, and shall be handled in accordance with the change order procedures of the Agreement.
- (i) This Change Order does not have any effect on the Total Agreement Price as set forth in the Agreement.
- (j) The schedule governing this Change Order will be in accordance with the Project Schedule as amended.

EXHIBIT B

Change Order No. 8 Pricing and Scope of Work

Schedule 1:	Microwave Infrastructure Pricing, Revision 1
Schedule 2:	Microwave Infrastructure Scope of Work, Revision 1
Schedule 3:	Microwave Infrastructure Milestone Payment Schedule

EXHIBIT B

Schedule 1: Microwave Infrastructure Pricing, Revision 1

Microwave System Radio Equipment	\$683,619.43
Microwave System Antenna Equipment	\$452,987.96
Microwave System Design Services	\$285,665.16
Microwave System Radio and Antenna Installation Services	\$909,454.80
Years 1 - 3 Warranty	\$0.00
Microwave System Upgrade Total	\$2,331,727.35

EXHIBIT B

Schedule 2: Microwave Infrastructure Scope of Work, Revision 1

Exhibit A, Exhibit 1: Statement of Work, System Description, page 2, first paragraph

- **Microwave System:** Harris will provide a new 20 link microwave solution that interconnects 20 site locations consisting of the core sites, RF sites and the existing PSAP locations within Washoe County. Harris will implement the Nokia 7705 SAR-8 MPLS router at each microwave site for the routing of packets throughout the new microwave network and will setup the routers to interface with the NDOT microwave network. Harris will coordinate with NDOT to configure the 7705 SAR-8 to properly route packets between NDOT and Washoe County microwave networks.

Exhibit A, Exhibit 1: Statement of Work, System Description, pages 32-35**Microwave System**

Harris will design and implement the new Washoe County microwave network that will provide high-speed wireless Ethernet transmission via the Nokia 7705 SAR-8 MPLS router installed at each Washoe County site. The new Washoe County microwave network will interconnect with the NDOT microwave network to form the NSRS backhaul. Harris will perform all services to implement all new equipment that includes microwave dishes, waveguide, radios, dehydrators, Network Management System and MPLS routers to provide network connectivity between the RF sites, cores, and existing PSAPs in Washoe County. Harris has reviewed the existing Comsearch Microwave Path Data Sheet provided by Washoe County and have used this data along with the selected RF sites in Washoe County to provide a microwave backhaul network solution that will interconnect to the NDOT microwave network which forms the NSRS. The new Washoe County microwave network solution comprises of 20 links which is a combination of loop-protected microwave links and monitor hot standby (MHSB) links. These links will interconnect the cores, RF sites and PSAPs to the NSRS. Each link will be designed with a path availability of 99.999% based on the receive threshold to provide the required link bandwidth.

Included in Nokia Quote	Designation	Site A Name	Site B Name	Bandwidth Proposed	Bandwidth New Request
No	E(1)	Spectrum (EOC_DISP)	Peavine Mtn	Existing	Existing
No	E(2)	Peavine Mtn	Chimney Peak	Existing	Existing
No	E(3)	Spectrum (EOC_DISP)	Chimney Peak	Existing	Existing
No	E(4)	Spectrum (EOC_DISP)	Slide Mtn	Existing	Existing
No	E(5)	Airport (DispCnt)	Spectrum (EOC_DISP)	Existing	Existing
No	E(6)	Edison Way	Airport (DispCnt)	Existing	Existing
No	E(7)	Slide Mtn	Duck Hill	Existing	Existing

Included in Nokia Quote	Designation	Site A Name	Site B Name	Bandwidth Proposed	Bandwidth New Request
Yes	N1+0L(1)	Poito	Fox Mtn	25	163
Yes	N1+0L(2)	Virginia Peak	Fox Mtn	25	163
Yes	N1+0L(3)	Poito	Marble Bluff	25	163
Yes	N1+0L(4)	Virginia Peak	Marble Bluff	25	163
Yes	N1+0L(5)	Peavine Mtn	Virginia Peak	166	163
Yes	N1+0L(6)	Virginia Peak	Red Peak	166	163
Yes	N1+0L(7)	Spectrum	Red Peak	166	163
Yes	N1+1S-A(1)	49 Mtn	Yellow Peak	25	52
Yes	N1+1S-A(2)	Fox Mtn	49 Mtn	25	52
Yes	N1+1S-A(3)	Red Rock	Peavine Mtn	Not proposed	52
Yes	N1+1S-A(4)	Peavine Mtn	Cold Springs	25	52
Yes	N1+1S-A(5)	Red Peak	Smokey Quartz	52	163
Yes	N1+1S-A(6)	Mt Rose	Slide Mtn	25	52
Yes	N1+1S-A(7)	Snowflake	Incline	25	52
Yes	N1+1S-B(1)	Spectrum	Ophir Peak	Not proposed	163
Yes	N1+1S-B(1)	Peavine Mtn	Sparks Dispatch	25	163
Yes	N1+1S-B(2)	Edison Way	Spectrum (EOC_DISP)	Not proposed	163
Yes	N1+1S-B(4)	Slide Mtn	Ophir Peak	166	163
Yes	N1+1S-B(5)	Biltmore	Slide Mtn	25	163
Yes	N1+1S-B(6)	Snowflake	Biltmore	25	163

The new Washoe County microwave network will include the Nokia 7705 SAR-8 MPLS routers for routing all packets between microwave sites, core locations and between NDOT and Washoe County microwave networks. In the event of a microwave path failure within a microwave loop, the 7705 SAR-8 will automatically reroute traffic to the opposite direction of the network. For RF sites that are connected by microwave spurs, a 1+1 MHSB radio will be installed to increase the reliability of the link. Harris has designed the microwave network based on the topology provided in Figure 23 below. The main microwave loop for interconnecting the two core sites in Washoe County consists of a 163 Mbps 1+1MHSB link with 7705 SAR08 MPLS backup loop protection using available bandwidth of existing links. The two cores are located at the EOC Dispatch and Edison Way locations. The northern loop and all spur sites will have links that support 52 Mbps radios. The Washoe County microwave network will interconnect with the NDOT microwave solution which share network nodes at Peavine Mtn and Virginia Peak site locations. Harris will coordinate with NDOT to support the routing of packets between the cores, RF sites and PSAPs located on the Washoe County side and the NDOT side of the NSRS.

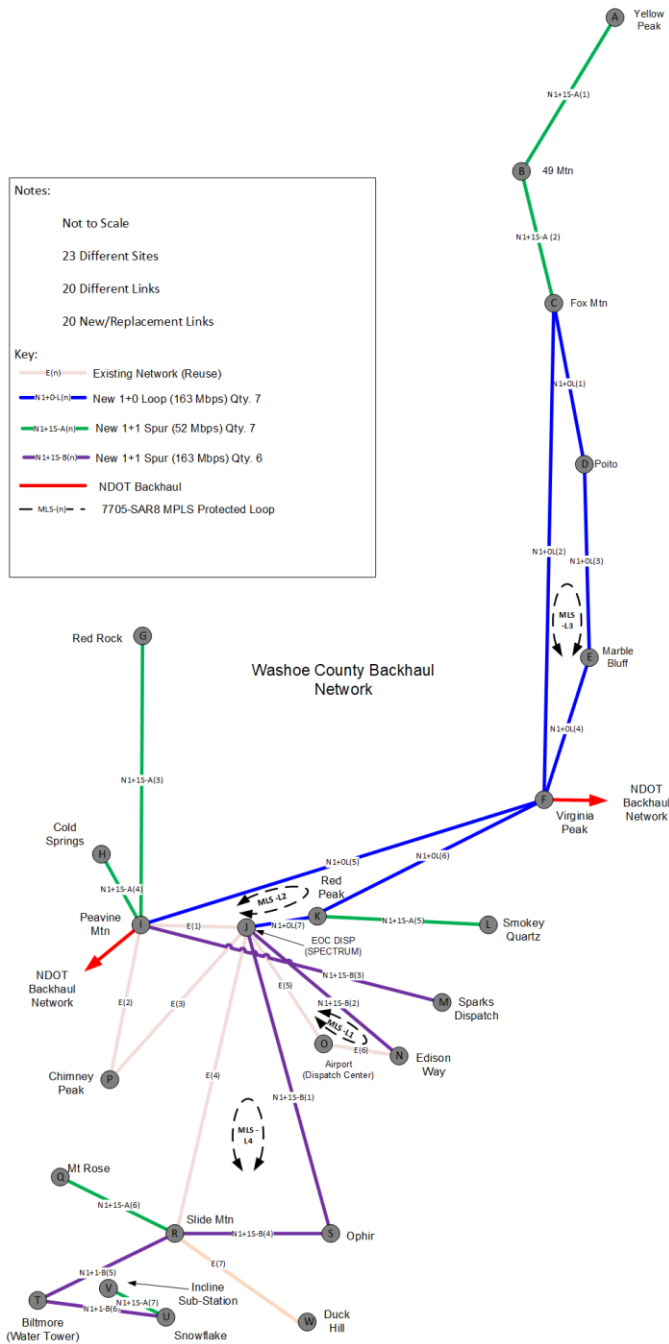


Figure 23: Overall Microwave Topology

The existing microwave links in Washoe County were considered and are based mainly on Nokia (formerly Alcatel) DS1 microwave circuits. Analysis of the existing microwave paths that will be reused are limited in bandwidth due to the nature of the existing DS1 signaling and will need to be replaced with all new Ethernet based radios to meet the NSRS bandwidth requirements. The existing DS1 links will remain operational until full cutover to the new NSRS. At that point, the equipment for ten existing links that are being replaced will be removed only.

EXHIBIT B

Schedule 3: Microwave Infrastructure Milestone Payment Schedule

Milestone	Percent	Amount
Execution of Change Order	5.00%	\$116,586.37
Completion of Field Path Surveys	7.50%	\$174,879.55
Completion of Approved System Design	5.00%	\$116,586.37
Completion of Frequency Coordination and FCC Licensing	10.00%	\$233,172.74
Start of Equipment Manufacturing	15.00%	\$349,759.10
Completion of Factory Staging and Testing	5.00%	\$116,586.37
Delivery to Storage Location	5.00%	\$116,586.37
Substantial Completion of Sites 1-5	7.50%	\$174,879.55
Substantial Completion of Sites 6-10	7.50%	\$174,879.55
Substantial Completion of Sites 11-15	7.50%	\$174,879.55
Substantial Completion of Sites 16-20	7.50%	\$174,879.55
Completion of Field Acceptance Testing	12.50%	\$291,465.92
Completion of Punch List	5.00%	\$116,586.37
Total	100.00%	\$2,331,727.35