MARIN EMERGENCY RADIO AUTHORITY

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DATE: December 12, 2018

TO: MERA Governing Board

FROM: Dave Jeffries, Deputy Executive Officer for the Next Gen Project

SUBJECT: AGENDA ITEM D-2: Motorola Contract Change Order #7 – AES/DES Encryption, Radio Management, WiFi, OTAP

Recommended Action: Review, discuss and consider approval of Motorola Contract Change Order #7.

Introduction:

At the 03/19/18 meeting of the Project Oversight Committee, we discussed staff report #C that addressed the possibility of ordering mobile radios early in conjunction with Radio Management, Over the Air Programming and Wi-Fi programming. At that time, the committee recommended that MERA pass on delivery during the summer of 2018 and revisit the issue later. This was reported to the Governing Board at their meeting on 04/25/18 in Staff Report #B-1.

This revised proposal was discussed at a joint meeting of the Next Gen Project Oversight Committee and Finance Committee on 09/12/18, followed by a verbal report to the Executive Board later the same day. This matter was also discussed at the Governing Board Meeting on 09/26/18 as an information item for potential action on 10/24/18. At the 10/24/18 Governing Board Meeting, this item was continued for further consideration at the Governing Board's Meeting on 11/28/18. On 11/14/18, the pending change orders were discussed with the MERA Finance Committee. They recommended that decisions on the pending change orders be postponed to the 12/12/18 Governing Board meeting allowing further review by that committee. A verbal update from the 12/06/18 MERA Finance Committee meeting will be provided.

Change Order Details:

Change Order #7 is focused on supporting the ability to manage and remotely reprogram field user radios. Currently, every reprogramming requires that the radio technicians travel to users and physically tough each radio needing updating or for those users to travel to the Radio Shop to have this service performed. With nearly 3,000 radio in our system, this can be a daunting and expensive task.

Radio Management is a database that tracks each radio in the MERA system, including software and code plug versions and can be used to push updates to all of the radios by using Wi-Fi connections and/or Over The Air Programming (OTAP). The Wi-Fi connection would utilize Wi-Fi hotspots at MERA agencies that will allow the MERA system to push program changes to the fleet of radios wirelessly. The OTAP connection uses a slower, yet existing MERA data backbone to push programming out to radio that will not have Wi-Fi access. Both methods eliminate the need for

technicians to directly touch each radio needing updating, which has been estimated at $75,000 to $130,000 in communications technician time per round of reprogramming. This reduction in major reprogramming efforts in combination with minor reprogramming and increased staff efficiencies provides a potential to reduce DPW technician costs to MERA under the System Maintenance Agreement. The Wi-Fi capability is available on all the portable radios expected for the Next Gen system as well as the dual band capable mobile radios. Wi-Fi connectivity is not available for the single band mobile radios.

The second part of this change order is for 200 instances of AES/DES encryption. Those MERA agencies using encryption in Gen I utilize an encryption technology called AES. In the Next Gen System, a newer technology, DES, will be used. These two technologies are not compatible. These instances of both AES and DES encryption are designated for those radios that currently use encryption to maintain their encryption capability while operating on the Gen I System and then continue to function after cutover on the Next Gen System.

Relation to other Contract Change Orders:

This Contract Change Order has an impact on Contract Change Order #11 – Early Order Mobiles in addition to its stand-alone value. If CCO#11 is approved with the intent of shortening the cutover period, the Radio Management/Wi-Fi/OTAP and encryption aspects of this Change Order will aid in shortening that process.

Change Order Cost:

The cost for this Contract Change Order, after discounts, is $579,268.95. With estimated sales tax, the total cost is $631,403.15

Payment Schedule:

Note – The following payment schedule is based on the current draft project schedule. This schedule will be reviewed and finalized following completion of the Subsequent EIR process as part of the Customer Design Review process. Dates are subject to change and therefore it is recommended that the payment schedules be reviewed in May/June 2019 and again in November 2019.

This Change Order is anticipated to be invoiced as a single item in Q2, 2022.

ATTACHMENT:

           D-2a   Motorola Contract Change Order #7, dated 09/17/2018