

**ITEM #62<sub>(5)</sub>**

**ADDITIONAL MATERIAL**  
**Public Hearing**

**MAY 7, 2019**

**SUBMITTED AT THE REQUEST OF**  
**COUNTY ADMINISTRATION**



BERTHA W. HENRY, County Administrator

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## MEMORANDUM

**DATE:** May 6, 2019

**TO:** Board of County Commissioners

**FROM:** Bertha Henry, County Administrator 

**SUBJECT:** Letter Received from GM Selby re Radio Tower Sites

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Please allow this memorandum to offer a response to the letter received from GM Selby (Selby) dated April 29, 2019.

To place Selby's communication in context, the County requested a copy of the City's report presented at the County Commission's Workshop on April 9, 2019. As you may recall, the City's presentation contained excerpts attributed to Selby in response to the report prepared by MCP and KCI, the County's engineering and structural consultants, respectively. Instead of a report, the County received the letter addressed to Mr. DeZayas, leaving the County to assume no report was forthcoming or even prepared, since Selby admittedly had not physically inspected the site at the time of making commentary.

We continue to assert that the County's proposed solution is the best of those studied for this area. It offers better coverage; is less expensive; and can be done more expeditiously. As a reminder, this a redundant system, linked together requiring all installations to be completed before the system can function as designed. Compromising stability and performance for any site, much less a backup site, due to an install at a substandard location (as is suggested of the West Lake site by Selby) would never be in the County's best interest. The financial and operational risks are borne by the County. While no solution is foolproof, the County's experience in managing these sites through multiple hurricanes and, more importantly, the day to day challenges in maintaining radio system availability makes the County more of an expert for purposes of this discussion.

More specific to Selby's comments, we offer the following:

Unlike other TDMA or other commercial technologies, a firm or individual directly involved in P25 Public Safety Communication installations must demonstrate an understanding of simulcast performance, channelization by antenna, transmission networks, receive networks, propagation models, and subscriber performance requirements. These criteria are unique to the design of P25 systems and are not consistent with other TDMA or commercial technologies. For example, Selby expressed a lack of understanding of certain nuances regarding P25 systems by suggesting an "additional down tilt antenna" be utilized, which is not reasonable for a channelized system with multiple transmit and receive antennas.

Selby's reference to 'biases' between Motorola and KCI suggest a lack of understanding of the County's vendor relationships and their respective roles. For the record, KCI is a structural engineering firm that works with all wireless vendors in the public safety and commercial arenas. They have no affiliation with Motorola. Mission Critical Partners (MCP) is an independent public safety consulting firm with no vendor affiliation.

Selby's concerns regarding generator siting at West lake are unfounded. The County's design requires buried AC power service to the location and utilizes a platform solution supporting the shelter, generator, and fuel tank. The site, raised nine feet above sea level, is designed to operate without commercial power via a generator until commercial power is restored and the County has numerous resources available for refueling purposes in flooded areas.

The radio tower, antenna, coax, and shelter are all designed to survive sustained category five hurricane winds, with 180 mph 3-second gusts. The structural integrity is designed to support the antennas and associated mounting systems for this windstorm level. The antennas at a tower in West Lake Park would be equally exposed to the effects of wind as antennas mounted on the rooftop at the Circ. In the event of an antenna falling off during a wind event, the prospect of antennas falling from a building rooftop is extremely concerning given the highly populated areas surrounding the Circ, as opposed to the West Lake Park site.

The County has extensive experience maintaining a county wide radio system during hurricanes and understands what is required to restore service and replace antennas after these events. This includes locations other than traditional tower sites, which can present greater access challenges. However, the Circ would present additional access challenges for replacing antennas due to the higher density of people and buildings in the area and the requirement for using a specialized crane or helicopter for roof top access.

Selby's comments suggest that to make the CIRC work, the County could study an alternate location for the DC plant or a redesign to potentially use *'battery strings located on a lower floor capable of supporting the weight.'* Relocating the DC plant farther from the equipment will increase line losses, require larger conductors, and present additional logistical challenges for equipment access and maintenance. Additionally, the DC plant identified is being utilized at all Broward County locations. It is critical that all locations utilize the same equipment for commonality of support and spares. Even more disconcerting was the suggestion that spare items could be stored onsite. Had Selby visited the site, a greater understanding would have been evident that certain of its recommendations would not be feasible.

In closing, recommendations that require additional studies and time delays for a project that is seriously behind schedule is not acceptable. Further, the tone of the opinions expressed by Selby do not lend themselves to interpretation as a dispassionate, professional stance. Instead, the focus was directed at assessing the motives of the paid professionals who produced the feasibility study. As stated previously, no system is foolproof, but the County's experience and that of its consultants who have implemented many of these systems suggests moving forward with the installation at the West Lake Park is a better alternative than any other expressed.

cc: Wazir Ishmael, City Manager, City of Hollywood  
Alphonso Jefferson, Assistant County Administrator  
Tracy Jackson, Director, Office or Regional Emergency Services & Communications