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**November 3, 2016**

**TO: BOARD OF DIRECTORS**

**THROUGH: PHILLIP A. WASHINGTON** PAW  
**CHIEF EXECUTIVE OFFICER**

**FROM: DAVID C. EDWARDS** DCE  
**CHIEF INFORMATION OFFICER**

**SUBJECT: METRO RAIL SYSTEM CELLULAR AND WI-FI UPDATE**

### ISSUE

In November 2015, Metro staff updated the Board of Directors on the estimated schedule for the three phases of this project (Attachment). This is a progress update.

### DISCUSSION

In February 2013, the Metro Board authorized the CEO to enter into a 20-year contract with InSite Wireless to provide cellular coverage in the Metro underground rail system tunnels and stations, and an option for Wi-Fi in the Metro underground rail stations. The contract was structured to be a revenue generator for Metro.

The cellular portion of the project was divided into three phases:

- Phase 1 – Union Station to 7<sup>th</sup>/Metro Station (Red and Purple Lines)
- Phase 2 – To Wilshire/Western (Purple Line) and to Vermont/Sunset (Red Line)
- Phase 3 – Hollywood/Western to North Hollywood (Red Line),  
Gold Line Soto/Mariachi, and Expo 1 underground portion

### Cellular Infrastructure Status

Cellular service in each of these segments is dependent on completion of the distributed antenna system (DAS) and its related components in the subway stations, tunnels and equipment rooms. Construction has been progressing for the past two years. The DAS is currently completed from Union Station to Wilshire/Western. InSite Wireless and their contractors are about midway through Phase 2 with planned completion in March 2017. Phase 3 completion is forecasted for late 2017.

### Cellular Service Status – Phase 1

As of April 2016, Verizon Wireless initiated their 4G/LTE service with coverage in the Phase 1 segment. Sprint followed suit by activating their services in July. As of October 31, T-Mobile is also on-the-air in this first segment. AT&T Wireless has been in discussions with InSite Wireless but have not signed a contract at this point. Metro is planning a media press release to update the public on this progress.

### Cellular Service Status – Phase 2

T-Mobile service is also currently active in the Purple Line segment of Phase 2 through Wilshire/Western. Verizon and Sprint have not executed their contracts for Phase 2 but are anticipated to do so within the next few weeks. At that point, Verizon and Sprint will need to install additional equipment to provide coverage through Wilshire/Western. Given this assumption, service should be active up to Wilshire/Western before the end of this year. Phase 2 through Vermont/Sunset for Verizon, Sprint and T-Mobile should be active concurrent with DAS completion in March 2017.

### Cellular Service Status – Phase 3

Service for the three carriers; Verizon, Sprint and T-Mobile; should be active concurrent with DAS completion in late 2017 barring any unforeseen obstacles.

### Wi-Fi Status

Negotiations have stalled between InSite Wireless and an Internet Service Provider (ISP) for providing Wi-Fi in the subway stations. There does not appear to be an attractive economic model to entice an ISP to finance the infrastructure and service costs to provide free Wi-Fi in the stations. However, InSite Wireless continues to search the market for opportunities.

### New Rail Line Construction

Metro and InSite Wireless staff have amended the cellular contract to formally include the Crenshaw Project, the Regional Connector Project, and the Purple Line Extension Project. Metro staff and InSite Wireless staff have met the Design-Build Contractors of the Crenshaw Project and the Regional Connector Project to include cell phone coverage within the underground portions of each respective rail line prior to the start of revenue service. Metro Purple Line Project staff is aware of the cellular project and meetings with the Design-Build contractor will occur in the next few weeks.

## **NEXT STEPS**

Metro staff has been working with InSite Wireless staff for increased track access time where optimal to both parties so as to continue on with the project timeline and minimize any disruptions. Metro staff will continue to work with InSite staff to ensure that the cellular system installation process will meet or potentially expedite the current project implementation schedule.

Metro staff and InSite Wireless staff will continue to meet and work with the Design-Build contractors to ensure that cell phone coverage is included in all new-build rail line projects prior to commencement of revenue operations.

**ATTACHMENT**

November 2015 Board Box: Metro Rail System Cellular and Wi-Fi Implementation

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November 18, 2015

**TO: BOARD OF DIRECTORS**

**FROM: PHILLIP A. WASHINGTON** *PAW*  
**CHIEF EXECUTIVE OFFICER**

**SUBJECT: METRO RAIL SYSTEM CELLULAR AND WI-FI UPDATE**

### ISSUE

In May 2015, Metro staff updated the Board of Directors on the estimated schedule for the four phases of this project (Attachment A). This is a progress update.

### DISCUSSION

In February 2013, the Metro Board authorized the CEO to enter into a 20-year contract with InSite Wireless to provide cellular coverage in the Metro underground rail system tunnels and stations, and for Wi-Fi in the Metro underground rail stations. The contract was structured to be a revenue generator for Metro.

At my request, Metro staff convened an onsite meeting of the key players in this project on October 15, 2015. These stakeholders included executive managers from: InSite Wireless, AT&T Wireless, Sprint, T-Mobile, Time-Warner Cable Business Class and Metro's project staff. The primary objective was to provide me with the opportunity to meet these key individuals and personally impress upon them the importance of activating Wi-Fi and cellular service in our stations and tunnels, respectively. I emphasized that these services were not only a helpful amenity for our riders but these services are needed for safety and security reasons. I wanted to ensure everyone knew that Metro is committed to move forward as expeditiously as possible and will assist where necessary. I also shared the importance of implementing as much service as possible prior to the potential ballot measure.

After getting a status briefing from InSite on the current schedule we had a spirited discussion with all regarding perceived challenges still in our way to efficiently progress toward full implementation. To that end, I directed our new Chief Innovation Officer, Dr. Joshua Schank and Chief Information Officer, Dave Edwards to continue an aggressive dialogue to close any remaining gaps to moving forward.

With that said, the updates are as follows:

- Completion of Phase 1 cellular infrastructure (Union Station to 7<sup>th</sup> Metro Center) is slated for December 2015. Individual agreements between InSite Wireless and each of the cellular carriers must still be reached.

- Negotiations with Verizon Wireless are in the final stages. This pending agreement would initially extend Verizon's coverage into the subway from Union Station to 7<sup>th</sup>/Metro Center by approximately Q1 of 2016.
- Negotiations with AT&T, Sprint and T-Mobile for their cellular coverage are ongoing.
- Negotiations are ongoing between InSite Wireless and an Internet Service Provider (ISP) for providing Wi-Fi in the subway stations. The ISP submitted an initial proposal on November 2, 2015. InSite reviewed the proposal and clarified some key points. InSite subsequently asked the ISP to revise their proposal accordingly. A schedule for Wi-Fi in the subway stations will be presented once a tentative agreement has been reached.
- Phase 2 Cellular (7th/Flower to Vermont/Sunset and to Wilshire/Western) infrastructure is slated for completion six months after Phase 1, projected to be Q3 of 2016.
- Phase 3 / Phase 4 Cellular (Hollywood/Western to North Hollywood, Gold Line Soto/Mariachi and Expo 1 underground portion) infrastructure is slated for completion one year after completion of Phase 2, projected to be Q3 of 2017.

### **NEXT STEPS**

Address all potential barriers that may be hindering progress on the project. In particular InSite has expressed a desire for increased track access time in order to accelerate the project timeline. We are working with InSite and our Operations group to determine what might be possible along these lines.

Convene follow up meetings as needed with stakeholders of this project with the imperative of meeting or reducing the current schedule.

**Attachments:**

**A: May 2015 Board Box: Metro Rail System Cellular and Wi-Fi Implementation**