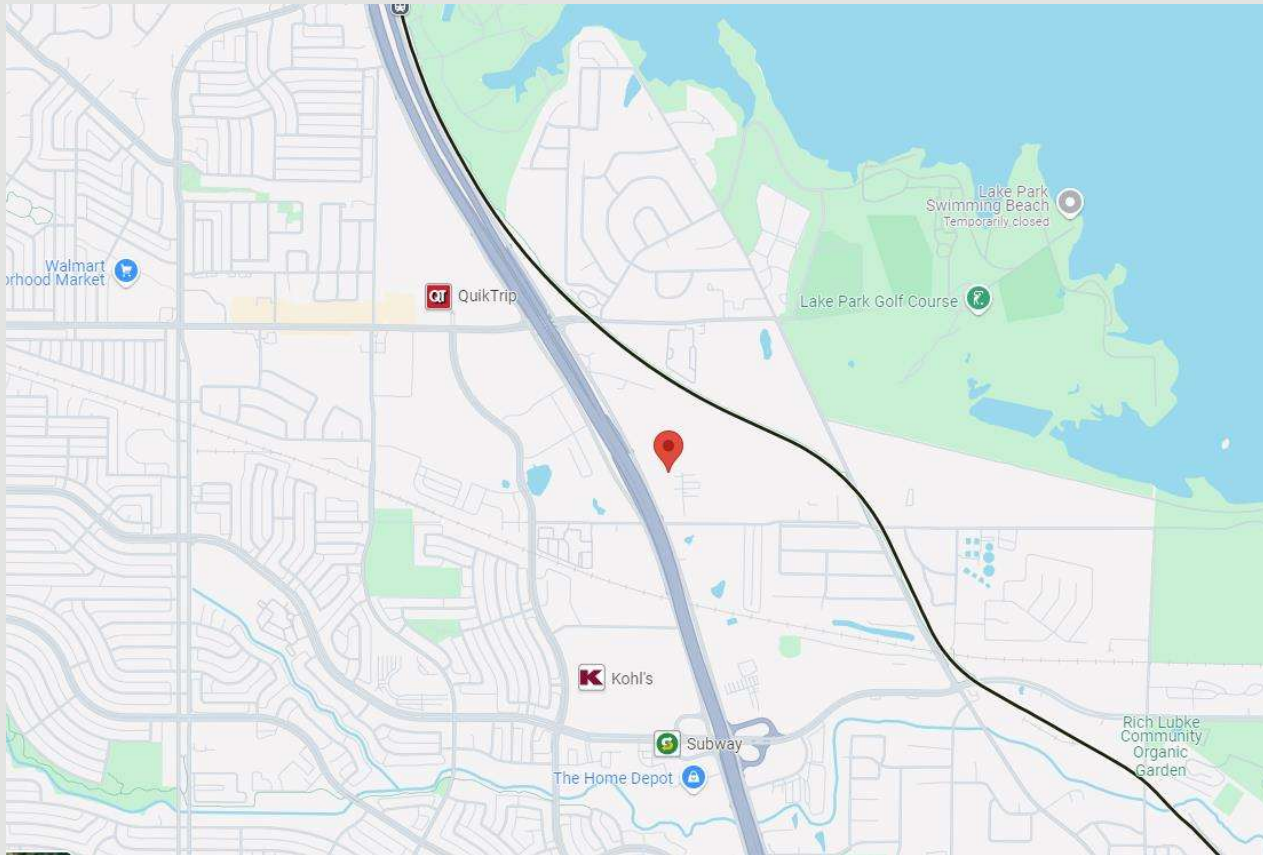


Verizon Wireless Communications Facility

Engineering Necessity Case – Proposed Verizon Site (JONES_ST)



Prepared by: RF Engineering

September 12, 2024



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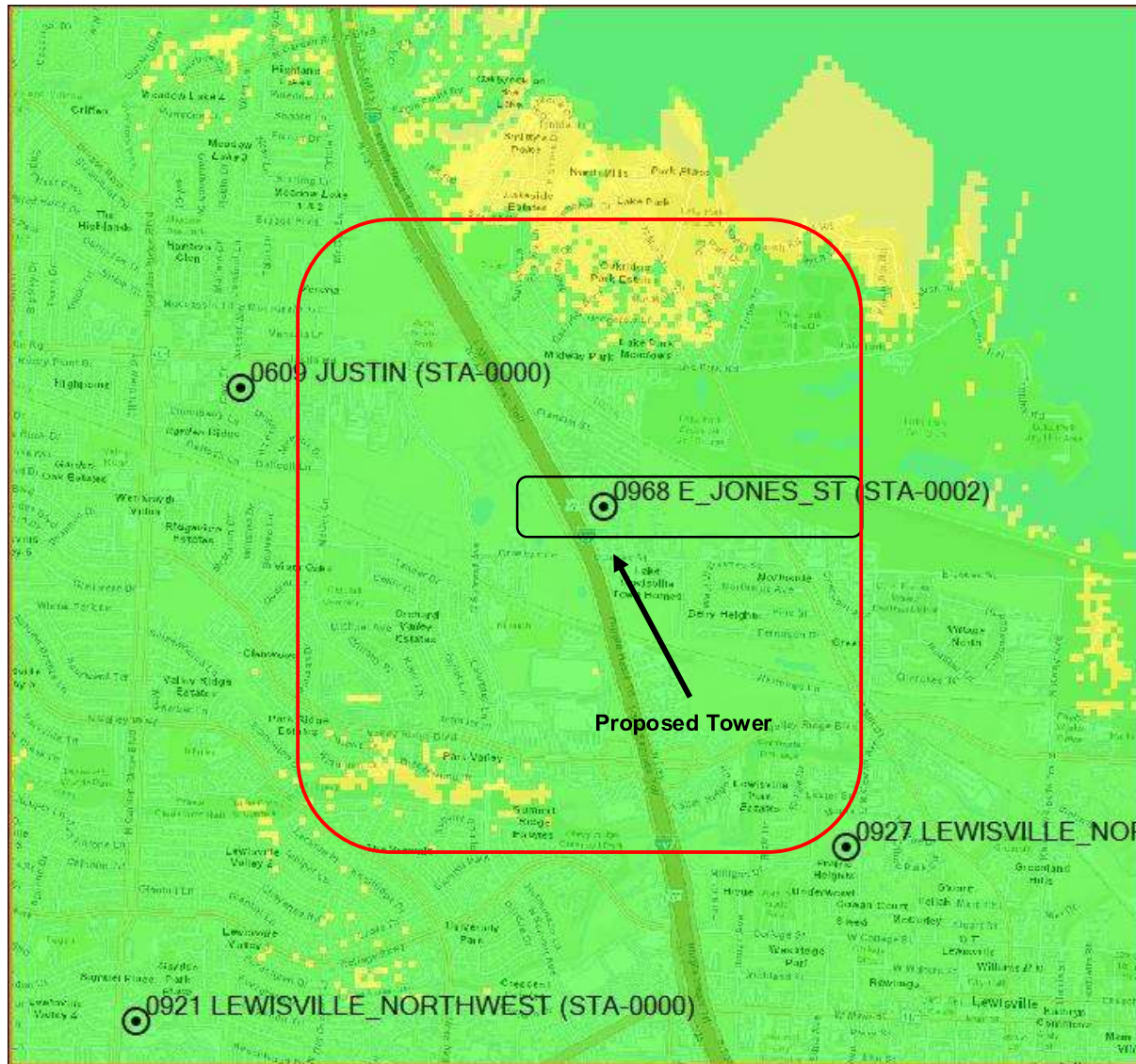
Objectives

By placing the new site at the proposed location, Verizon is able to meet its engineering requirements, which will provide the following benefits to its customers in the area:


- Improve indoor and outdoor coverage and increase capacity demand to meet engineering requirements for 911 and emergency services.
Offload usage from the Trigger sector and reducing the congestion and also help surrounding sites as well.
- Sufficient capacity to meet engineering requirements along Hwy 35, Lewisville Lake, and other commercial & residential locations.
- Provide sufficient network reliability by increasing the amount of time our customers operate on 5G instead of 4G.
- Proposed Tower at will provides a dominant server for the desired area to resolve the issues of capacity, throughput and improve coverage in the area.





Existing 700 LTE Coverage in the Area



Legend: RSRP levels(dbm)

 (-85 dbm)

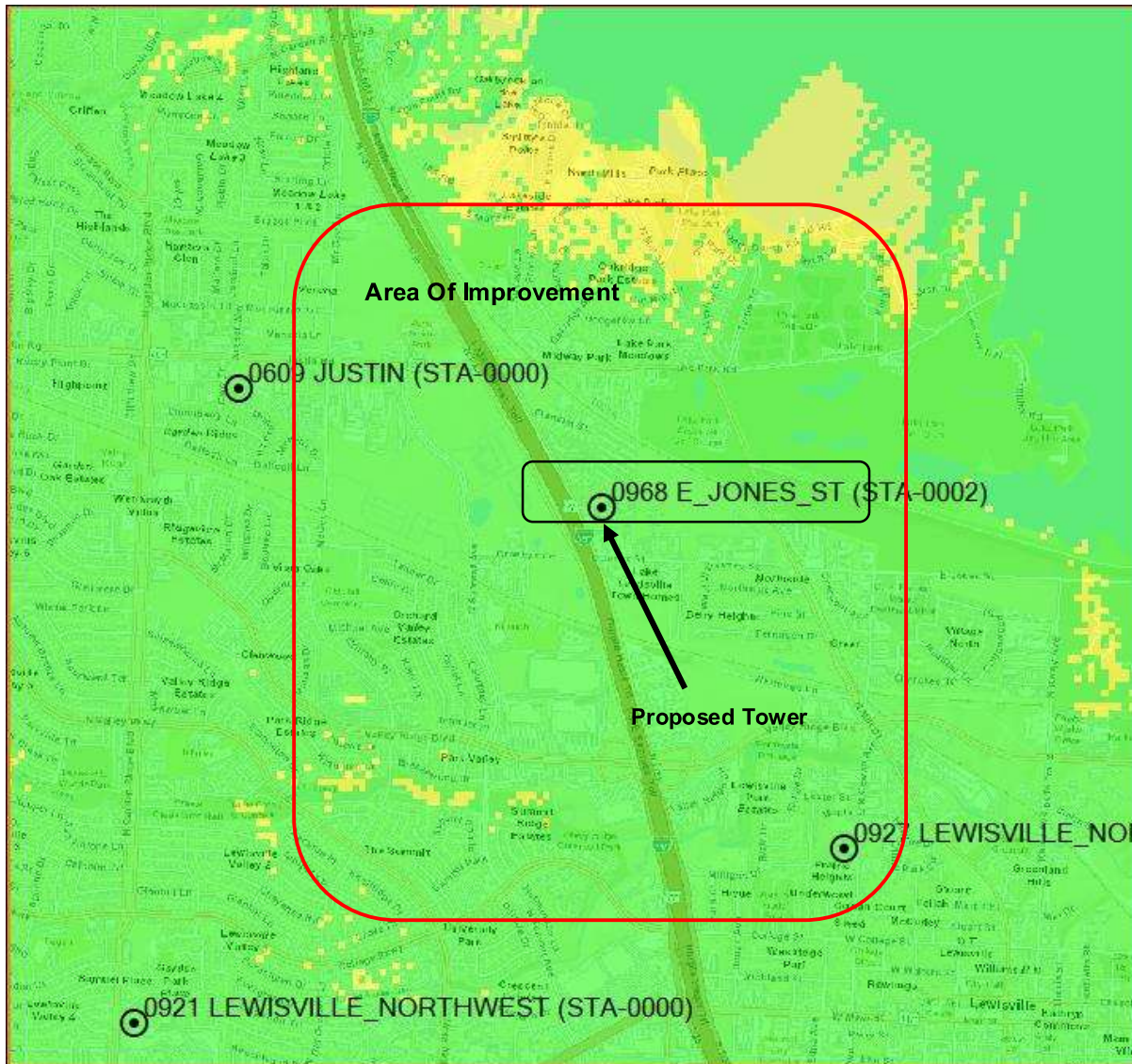
 (-110 dbm)

 (-120 dbm)


700MHz Service





Proposed 700 LTE Coverage Using VERIZON Tower (JONES_ST) at 90'



Legend: RSRP levels(dbm)

 (-85 dbm)

 (-110 dbm)

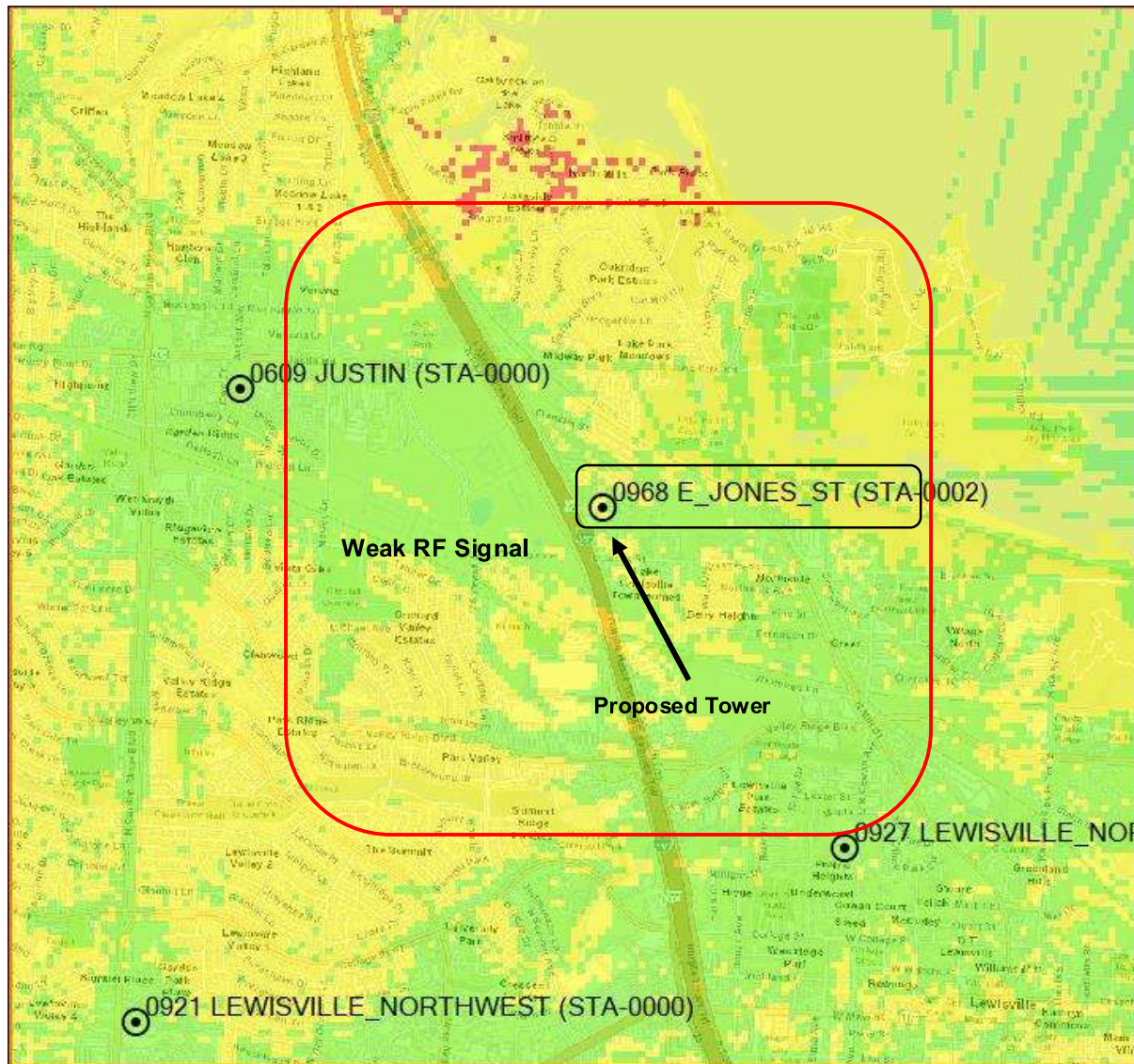
 (-120 dbm)

700MHz Service


Note: RSRP plots in slides 2-5 are generated Using Forsk's Atoll tool





Existing AWS Coverage in the Area



Legend: RSRP levels(dbm)

 (-85 dbm)

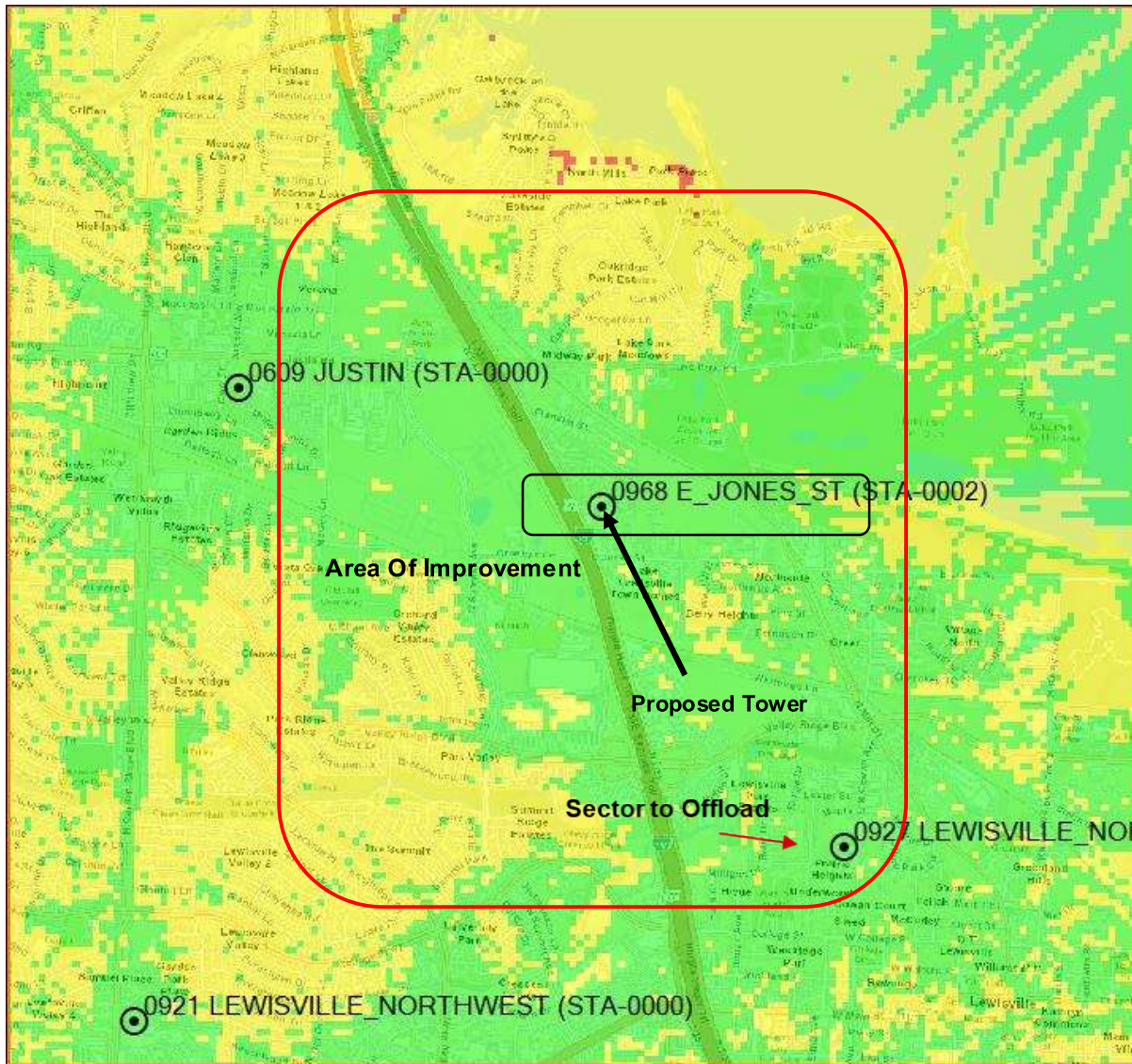
 (-110 dbm)

 (-120 dbm)


700MHz Service





Proposed AWS Coverage Using VERIZON Tower (JONES_ST) at 90'



Legend: RSRP levels(dbm)

 (-85 dbm)

 (-110 dbm)

 (-120 dbm)

700MHz Service

Note: RSRP plots in slides 2-5 are generated Using Forsk's Atoll tool



Thank You



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