

WIRELESS NETWORK CONSULTING

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RMT03 Othello– Rocky Mountain Towers

HEIGHT ANALYSIS

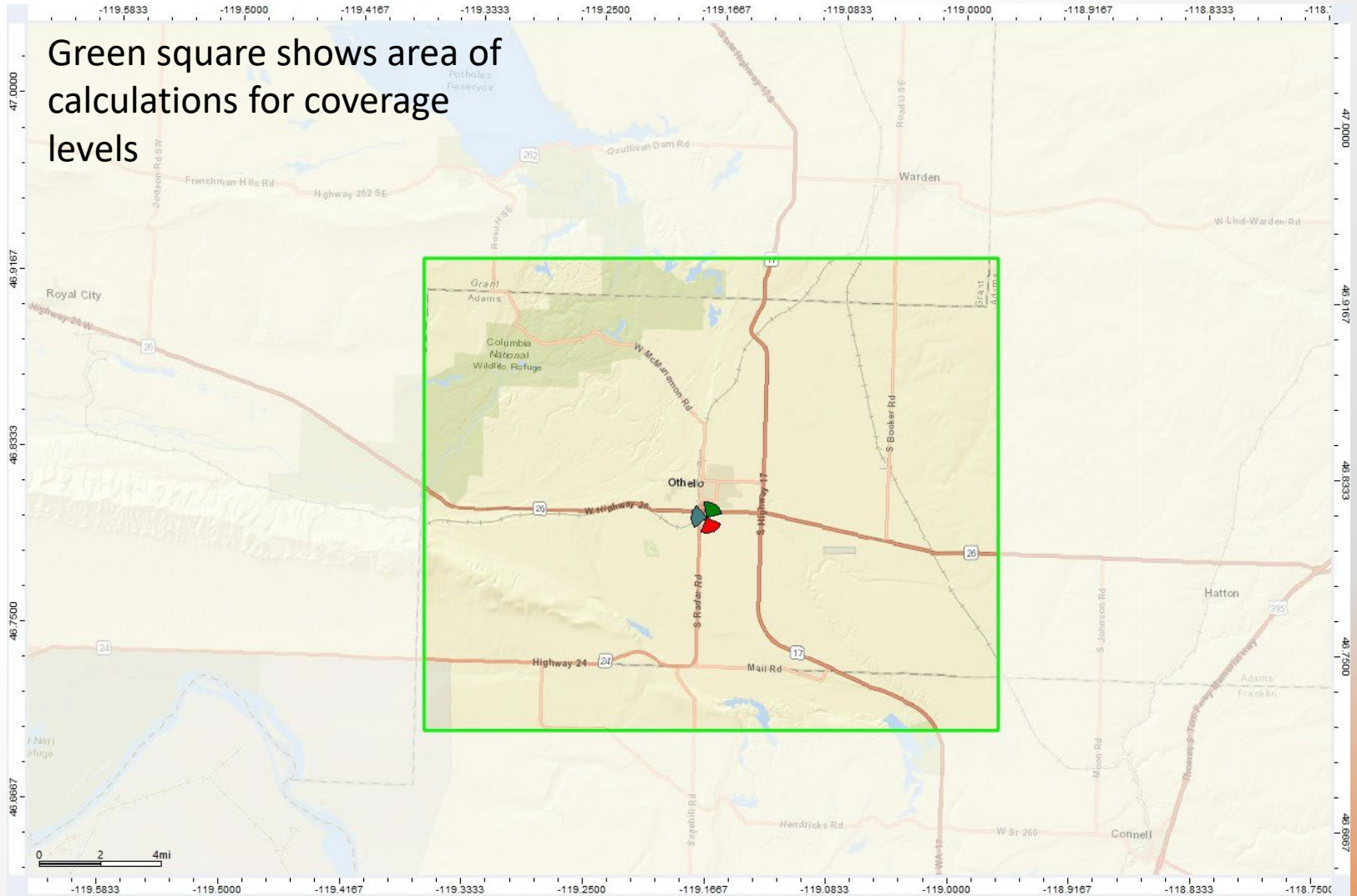
Height Analysis

- † Requested to review reasoning why Maverick is requesting a 150' AGL Tower
- † Review will include top tenant as well as lower tenants due to the lower height will impact them greater
- † To reduce the number of towers constructed the heights need to be tall enough to accommodate multiple tenants

Proposed Site

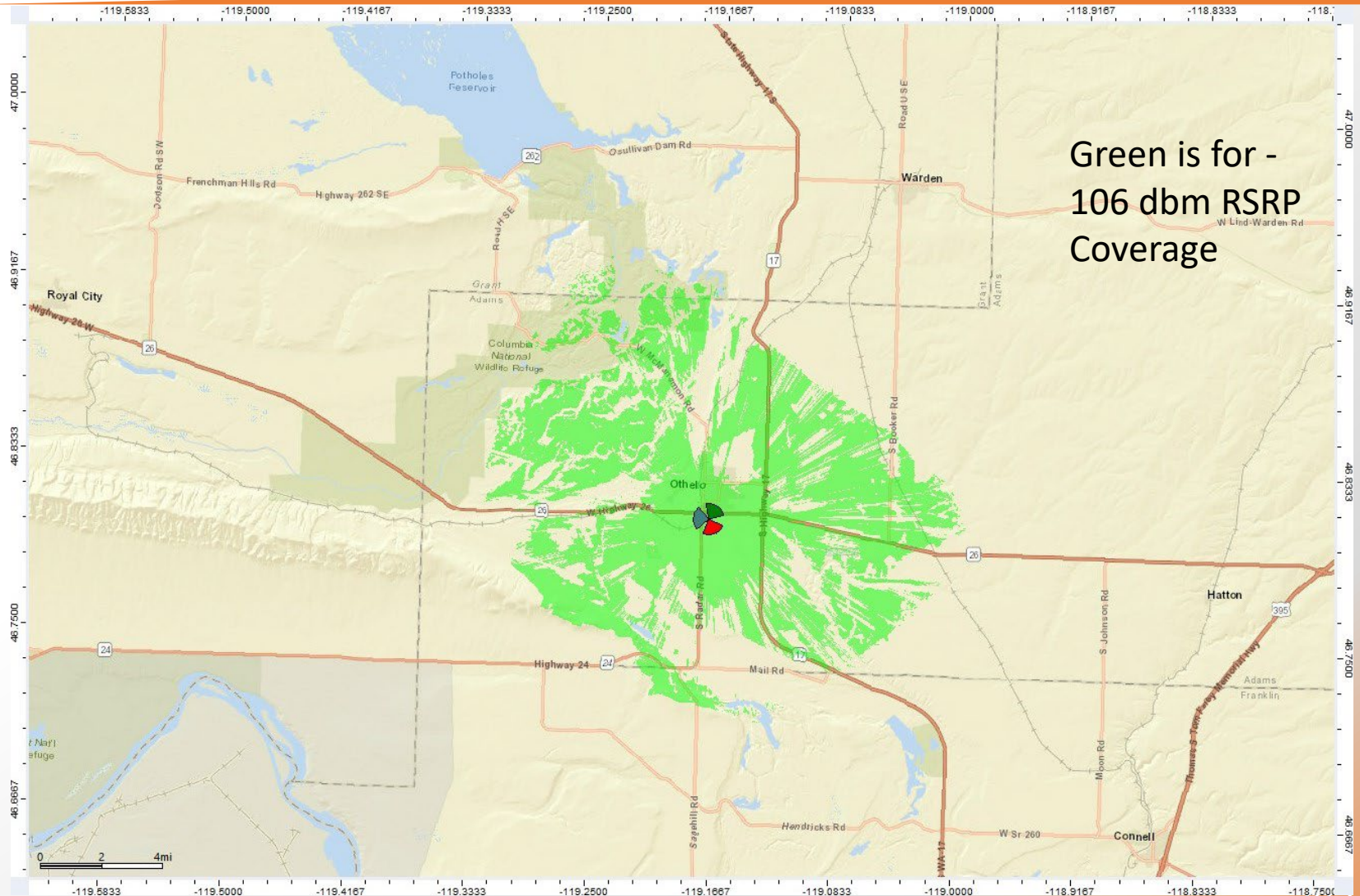
- † 150' SST Proposed Tower Location
 - Latitude: 46.808692 N (NAD83)
 - Longitude: -119.171549 W (NAD83)
- † Tower can have (4) tenants
- † Mounting Heights
 - 146' AGL Antenna Centerline
 - 133' AGL Antenna Centerline
 - 120' AGL Antenna Centerline
 - 107' AGL Antenna Centerline
- † This design has a 5' separation between antennas on different platforms for Radio Frequency interference control

Focus Zone

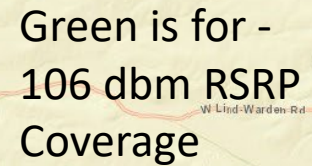


RSRP mid band WISP Coverage 146' C/L

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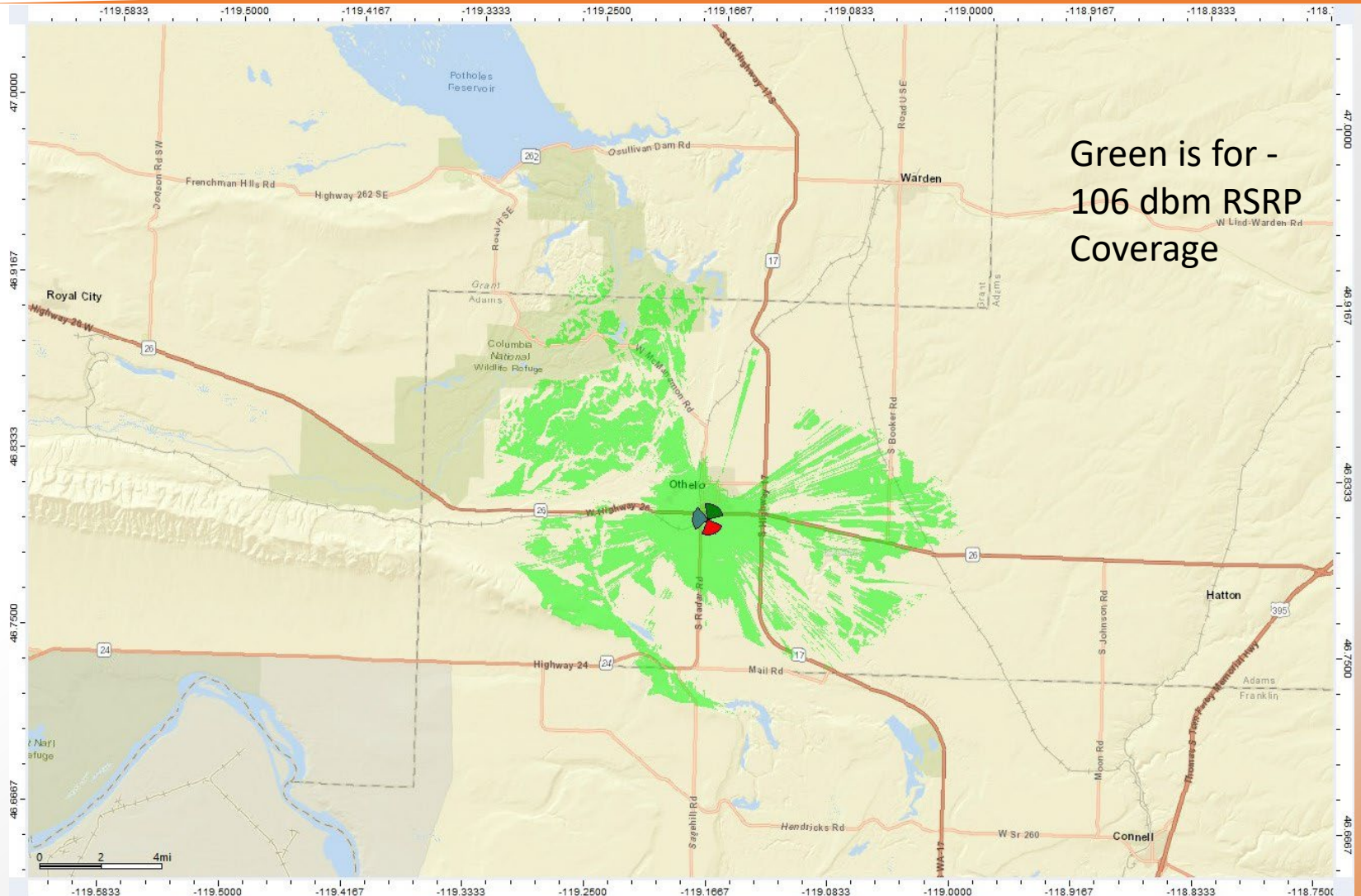


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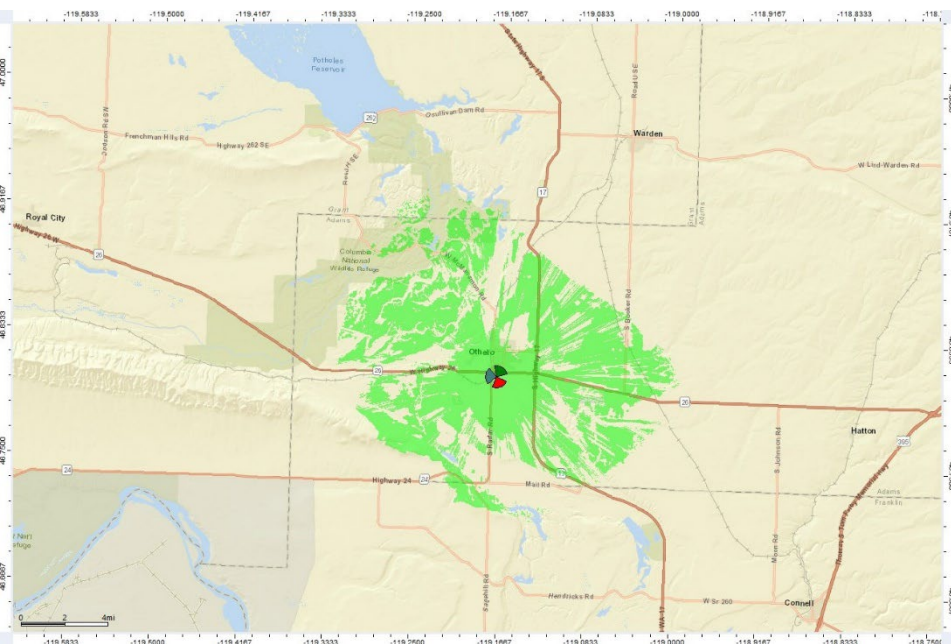
RSRP mid band WISP Coverage 96' C/L

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RSRP Coverage – mid band

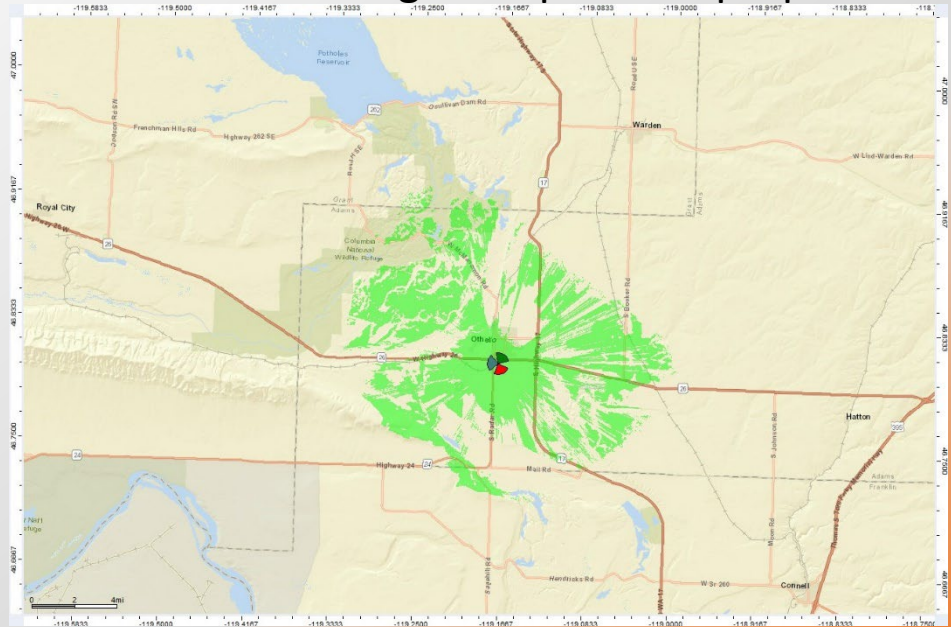
146' AGL vs 116' AGL



Zone	Prediction	Legend	Zone Surface (km ²)	Surface (km ²)	% of Covered Area	% Focus Zone
Focus Zone	LTE_NW-Mobility_RSRP-dBm (0)	RSRP Level (DL) (dBm) >=-106	748.898732	181.930496	100	24.3
				181.930496	100	24.3

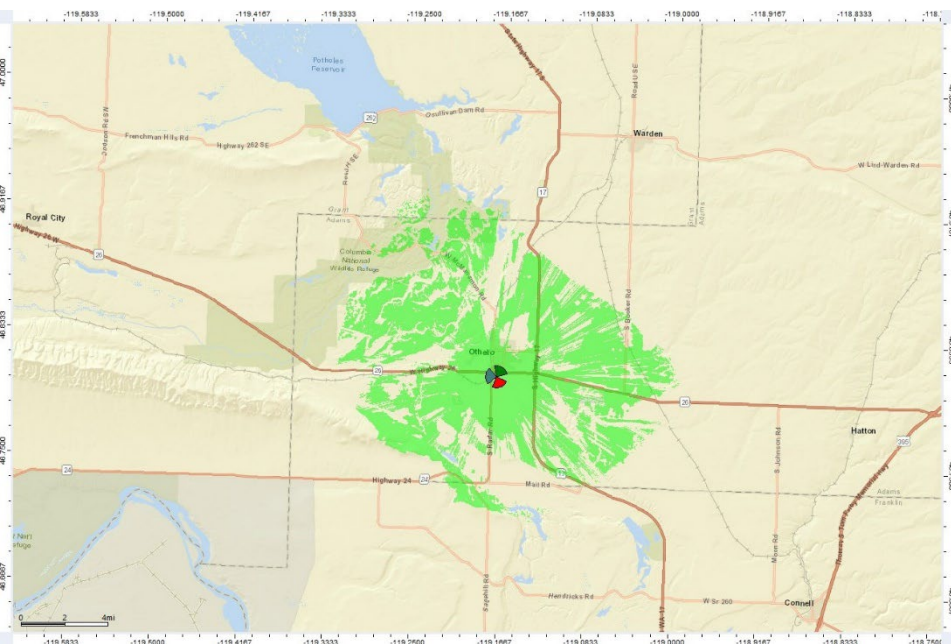
Zone	Prediction	Legend	Zone Surface (km ²)	Surface (km ²)	% of Covered Area	% Focus Zone
Focus Zone	LTE_NW-Mobility_RSRP-dBm (0)	RSRP Level (DL) (dBm) >=-106	748.898732	215.347488	100	28.8
				215.347488	100	28.8

Left Picture and upper table Proposed data showing 216.3 square kilometers are covered with service vs lower picture, lower left table showing data showing 181.93 square kilometers covered with indoor service a 16% reduction in coverage compared to proposed.



RSRP Coverage – mid band

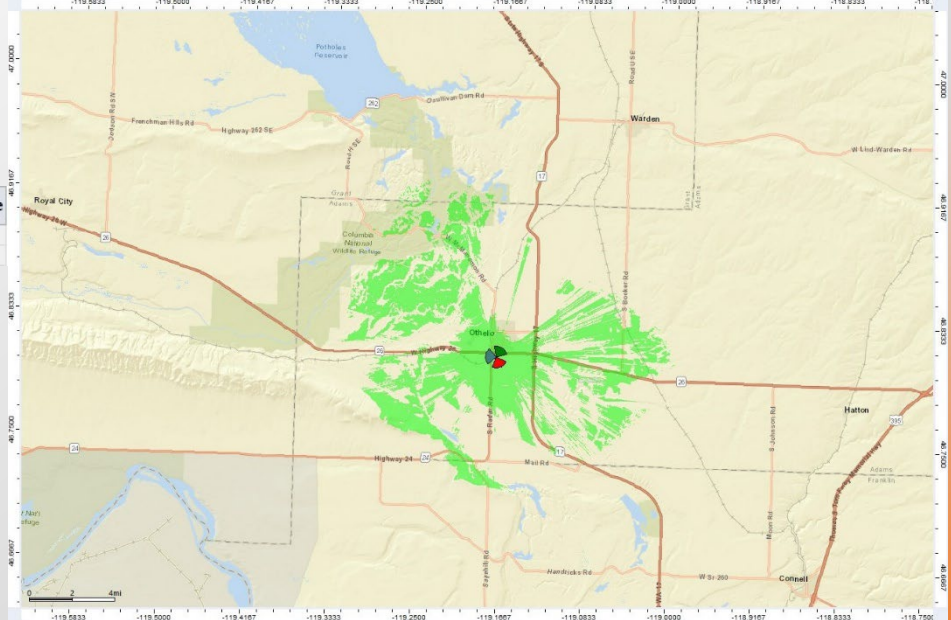
146' AGL vs 96' AGL



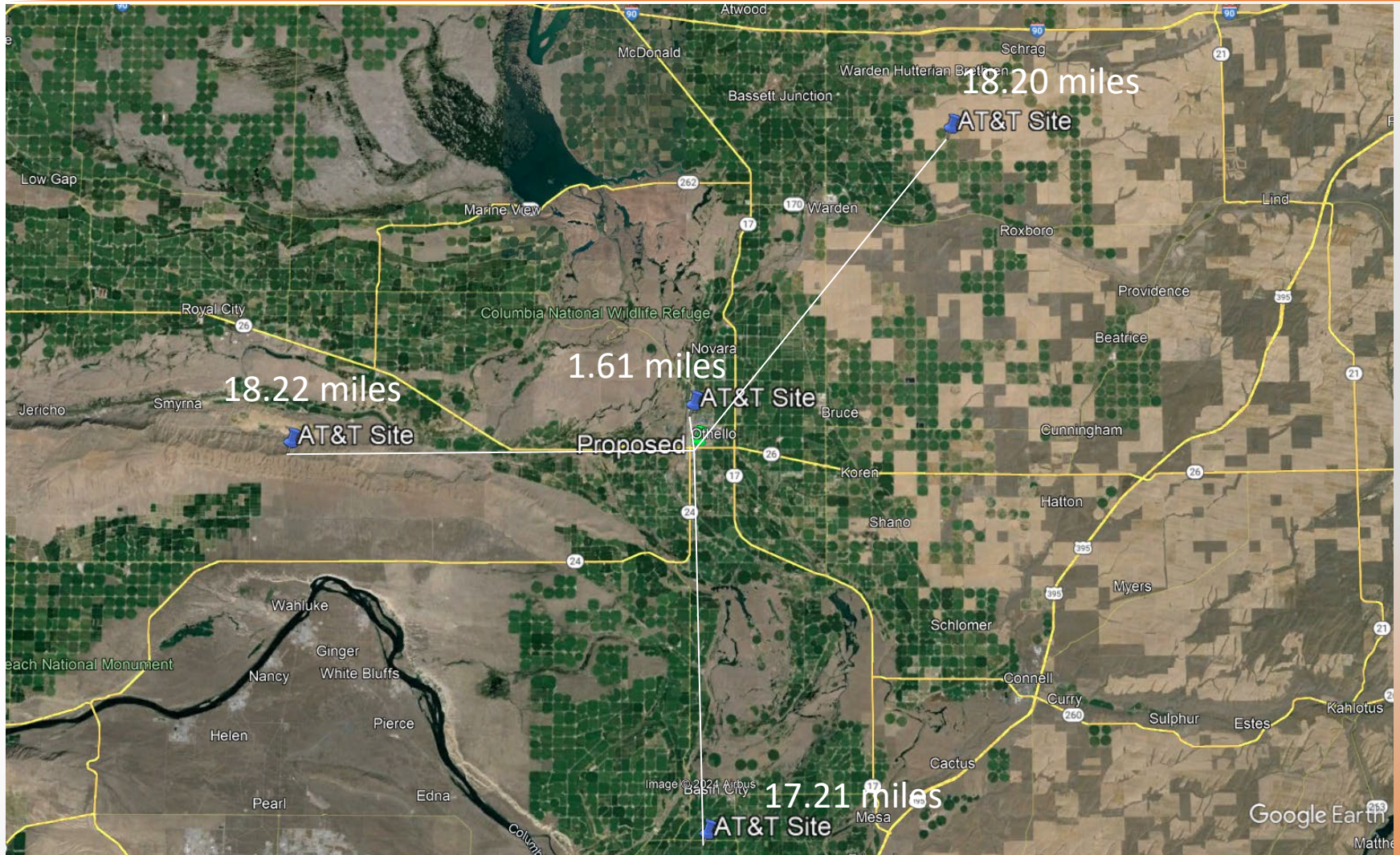
Zone	Prediction	Legend	Zone Surface (km ²)	Surface (km ²)	% of Covered Area	% Focus Zone
Focus Zone	LTE_NW-Mobility_RSRP-dBm (0)		748.898732	149.960693	100	20
		RSRP Level (DL) (dBm) >=-106		149.960693	100	20

Zone	Prediction	Legend	Zone Surface (km ²)	Surface (km ²)	% of Covered Area	% Focus Zone
Focus Zone	LTE_NW-Mobility_RSRP-dBm (0)		748.898732	215.347488	100	28.8
		RSRP Level (DL) (dBm) >=-106		215.347488	100	28.8

Left Picture and upper table Proposed data showing **216.3** square kilometers are covered with service vs lower picture, lower left table showing data showing **149.96** square kilometers covered with service **31%** reduction in coverage compared to proposed.



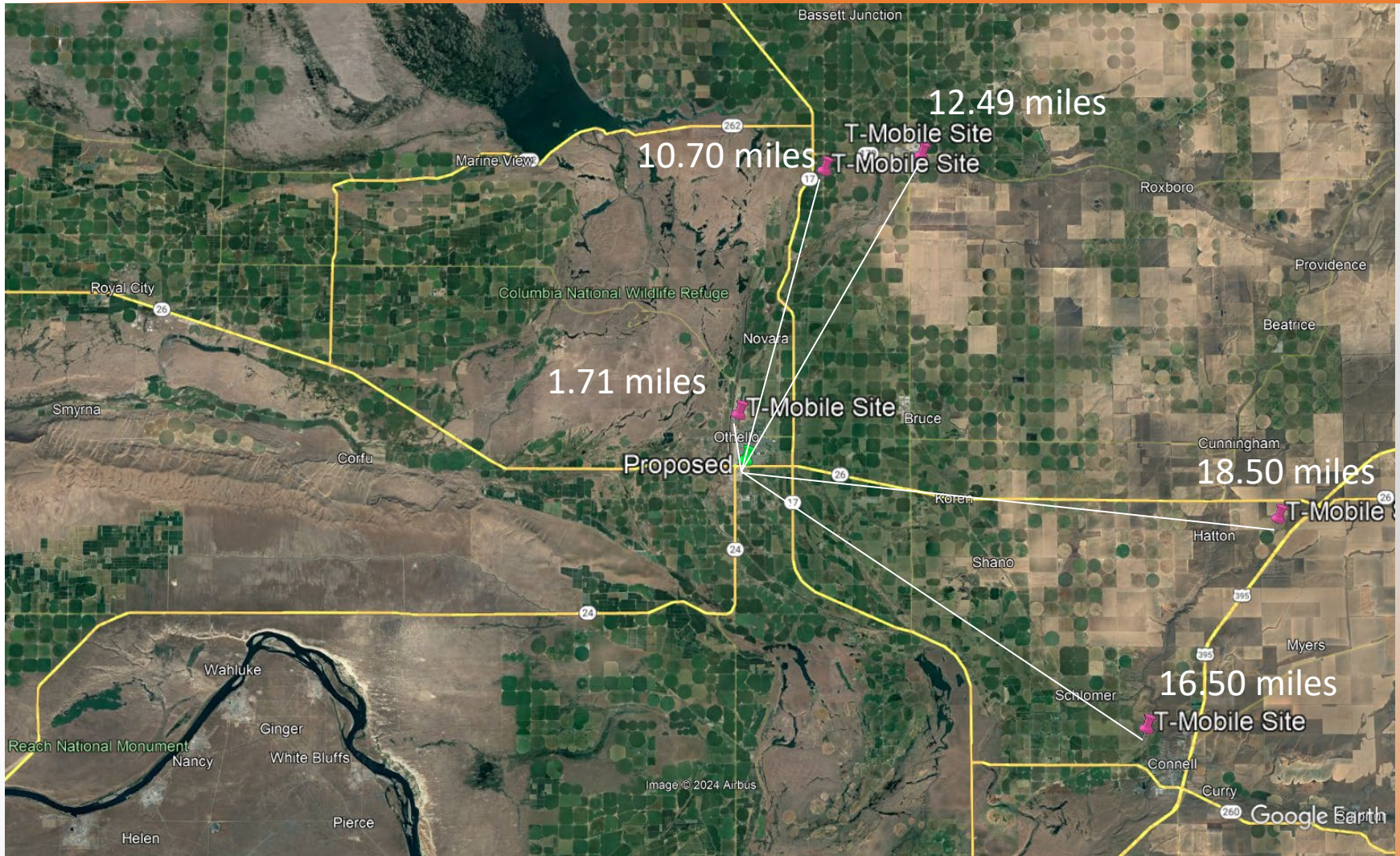
AT&T Neighboring Sites



Average distance to neighbor sites: 13.81 miles

2024

T-Mobile Neighboring Sites



Average distance to neighbor sites: 11.98 miles

2024

Verizon Neighboring Sites



Average distance to neighbor sites: 11.98 miles

2024

Conclusions

- † Restrictions on height limit the coverage area of a site
- † Antenna centerlines were ran at 146', 116' and, 96'
- † This was done assuming a 150', 120' and, 100' tower height
- † Worst case shows a 31% reduction in coverage for the WISP provider and will limit how many other tenants can collocate on the structure

Recommendations

- † Recommend approval of the proposed at the height requested to allow for multiple tenants to locate on the tower