



Alternatives Analysis

Golden Foothills

4994 Hillside Circle
El Dorado Hills



January 16, 2024

**Summary of Site Evaluations
Conducted by Verizon Wireless**

TABLE OF CONTENTS

I.	Executive Summary	3
II.	Significant Gap.....	3
III.	Methodology	3
	<i>Code Requirements</i>	<i>3</i>
	<i>Coverage Map Explanation.....</i>	<i>4</i>
IV.	Analysis	6
	<i>Summary</i>	<i>6</i>
	<i>Collocation Review.....</i>	<i>6</i>
	<i>Façade- or Roof-Mounted Facilities.....</i>	<i>7</i>
	1. Tomken Building	7
	2. Rippey Building (Sky Park).....	9
	<i>Existing Structures.....</i>	<i>11</i>
	3. EID Water Tanks	11
	<i>New Tower over 500 Feet from Residential Zones.....</i>	<i>13</i>
	4. 4640 Golden Foothill LLC.....	13
	5. Fire Station 87.....	15
	6. EID Cypress.....	16
	7. Palms Commerce Center (Meyer)	17
	8. Goldkey Boathouse.....	19
	9. Avanti Enterprises LLC	20
	10. Recycling & Buy Back Center.....	21
	11. Life Storage.....	22
	12. Broadridge (Wim Core)	23
	13. Slidebelts Inc. (Monson).....	25
	14. El Dorado Investment Co.....	26
	15. Winn Ridge Investments Ca LLC.....	27
	16. Frontier Dental.....	28
	17. Tower Investments Office Building (Vii De).....	29
	18. Investment Plaza (Top Revenue).....	30
	19. Wood.....	31
	20. Lowrey Investment Group	33
	21. Matson.....	34
	22. Youngdahl.....	36
	23. Montoro.....	38
	24. Rjm Property Holdings	40
	25. Peery Foundation	42
	26. CSS Properties	43
	<i>New Tower within 500 Feet of Residential Zones</i>	<i>44</i>
	27. Proposed Facility	44
	28. 5050 Hillsdale Circle (Ewing)	45
	29. Western Water	46
	30. iStorage	47
V.	Conclusion	48

Map of Alternatives

I. Executive Summary

Verizon Wireless must fill and significant gap in service in south El Dorado Hills. Based on the review of 30 alternatives set forth in the following analysis, Verizon Wireless believes that placing antennas on a tower camouflaged as a pine tree (the “Proposed Facility”) constitutes the least intrusive feasible alternative to serve the identified gap in network service based on the values expressed in the El Dorado County Ordinance Code (the “Code”).

The Proposed Facility (Alternative 27) is ideally located at an elevated location near the center of the coverage gap area. It is placed at the rear of a large property with ample space for a wireless facility equipment area large enough to accommodate future collocation of equipment by additional wireless carriers, as required by the Code.

II. Significant Gap

There is a significant gap in Verizon Wireless network service in south El Dorado Hills, stretching from White Rock Road to the north to Wetsel Oviatt Road to the south, and including the Heritage and Blackstone residential neighborhoods and the El Dorado Hills Business Park. Due to the distance from existing Verizon Wireless facilities, there is a lack of reliable in-building service coverage in these areas, with many areas lacking reliable in-vehicle service.

To remedy the Significant Gap, Verizon Wireless must place a new facility to ensure reliable network service. Ideally located near the center of the gap, the Proposed Facility will provide new reliable in-building and in-vehicle coverage to residential and business areas in south El Dorado Hills. A detailed description of the Significant Gap and the improved service to be provided by the Proposed Facility is found in the *Statement of Verizon Wireless Radio Frequency Design Engineer Ericson Malana*.

III. Methodology

Once a significant gap has been determined, Verizon Wireless seeks to identify a location and design that will provide required network service through the “least intrusive means” based upon the values expressed by local regulations. In addition to seeking the least intrusive alternative, sites proposed by Verizon Wireless must be feasible. In this regard, Verizon Wireless reviews the available height, elevation, local terrain, radio frequency propagation, proximity to end users, equipment space, access, and other factors such as a willing landlord in completing its site analysis.

Code Requirements

The Code encourages co-location on an existing site if feasible, or multi-carrier sites that facilitate future co-location. Code § 130.40.130(A)(1)(b).

Permit requirements are specified according to facility type.

An administrative permit may be approved for the following, provided they meet certain standards. Code §§ 130.40.130(B)(2), (3), (5).

- Co-located antennas on existing monopoles or towers
- Facade-mounted antennas in all zones
- Roof-mounted antennas in commercial, industrial and research/development zones, not exceeding 15 feet above the roof or the maximum zone height, whichever less. The building height limit in the R&D—Research & Development zone is 50 feet. Code § 130.23.030.

A minor use permit may be approved by the Zoning Administrator for the following, if they meet certain standards: (Code §§ 130.40.130(B)(4), (6)(a))

- Co-location on existing structures such as signs, water tanks, utility towers and light standards
- New towers in commercial, industrial and research/development zones over 500 feet from a residential zone





A conditional use permit is required for all other facilities, including new towers within 500 feet of a residential zone, and facilities that do not meet the standards to qualify for an administrative or minor use permit. Code § 130.40.130(B)(7).

Facilities must be designed to blend with the surrounding area, either painted or constructed with stealth technology to blend with the architecture or natural features of the site. Code § 130.40.130(D)(1). Where co-location on an existing site is not feasible, new facilities should be designed to facilitate future co-location to reduce the total number of sites countywide. Code § 130.40.130(A)(1)(b).

Coverage Map Explanation





Coverage maps are provided to illustrate why certain alternatives cannot serve the Significant Gap. Coverage maps depict the anticipated level of signal, and therefore the projected LTE coverage provided by a wireless facility at a given location. The coverage maps in this analysis have been prepared using the low-band 700 MHz frequency band, which provides the broadest coverage.

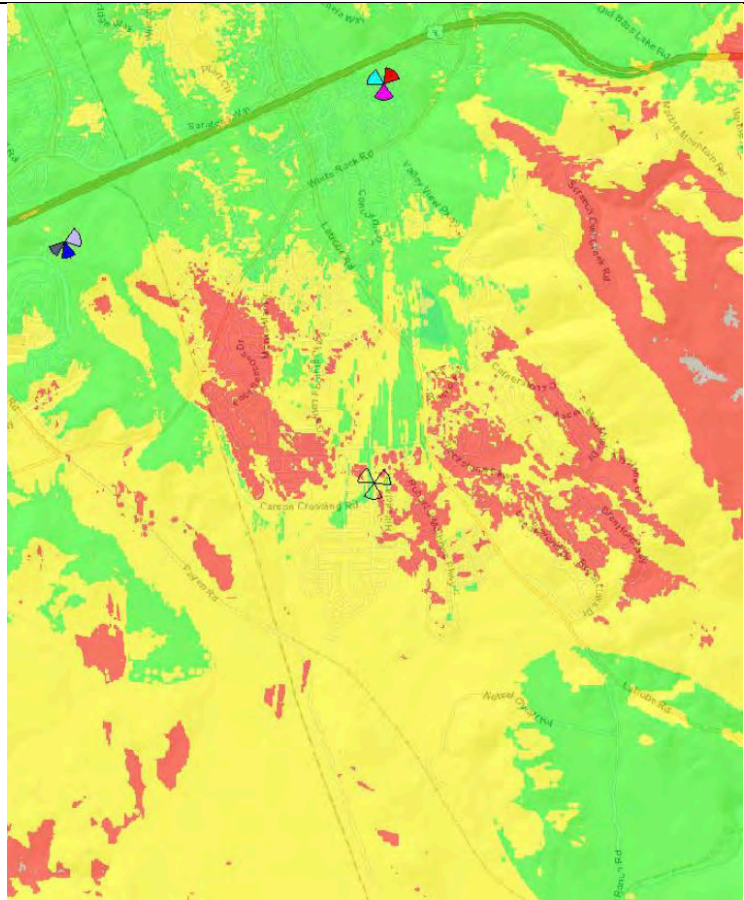
Referenced signal receive power (RSRP) is a measurement of signal level in decibel milliwatts (dBm), which is a negative number that decreases due to distance and other factors. The RSRP coverage thresholds are as follows.

	In-building ≥ -75 dBm. Green depicts good coverage that meets or exceeds thresholds for reliable network coverage in homes and vehicles.
	In-vehicle ≥ -85 dBm. Yellow depicts reliable in-vehicle coverage only.
	Outdoor ≥ -95 dBm. Red depicts reliable outdoor service only.
	Unreliable ≥ -105 dBm. Gray depicts unreliable service levels.

*Existing
Low-Band 700 MHz Coverage*





RSRP Coverage

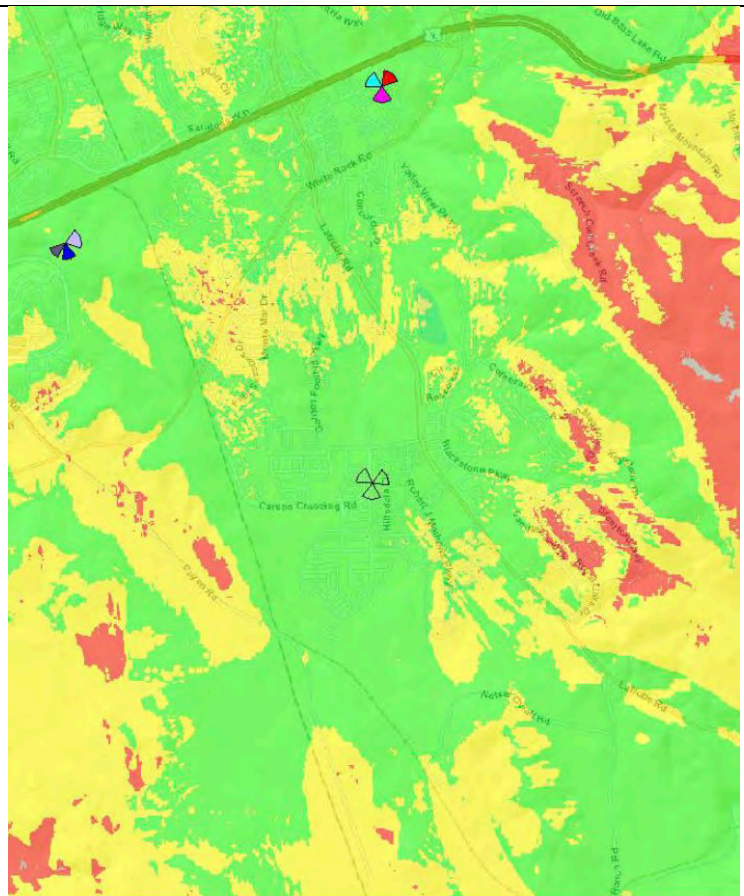
	In-building ≥ -75 dBm
	In-vehicle ≥ -85 dBm
	Outdoor ≥ -95 dBm
	Unreliable ≥ -105 dBm



*Proposed Facility
Low-Band 700 MHz Coverage*

RSRP Coverage

	In-building ≥ -75 dBm
	In-vehicle ≥ -85 dBm
	Outdoor ≥ -95 dBm
	Unreliable ≥ -105 dBm



IV. Analysis

Summary

Verizon Wireless first sought opportunities to collocate with existing towers in the vicinity of the Significant Gap, but identified none nearby.

Next, Verizon Wireless investigated buildings in the gap area on which to place façade- or roof-mounted antennas, examining two buildings at the most elevated locations in both the northern and southern areas of the Significant Gap. However, neither alternative could serve the Significant Gap. (Alternatives 1-2)

Verizon Wireless then reviewed the gap area for existing utility structures, and found none that could sufficiently elevate antennas, but examined a water tank property east of the gap area, where a facility could not serve the Significant Gap. (Alternative 3)

Next, Verizon Wireless considered placement of a new tower in areas over 500 feet from residential zones. Alternatives to the north and south in the El Dorado Business Park are too distant and/or at low elevations, and could not serve the Significant Gap. In the central El Dorado Hills Business Park around Hillsdale Circle, most properties are fully developed with buildings, landscaping, and required parking, with insufficient space for a wireless facility lease area. Verizon Wireless examined several larger properties with adequate space, but either the property owners did not reply to letters of interest, or a facility on those properties could not serve the Significant Gap. (Alternatives 4-26)

Verizon Wireless next reviewed placement of a new tower in the central El Dorado Business Park in areas within 500 feet of residential zones, readily identifying the Proposed Facility location (Alternative 27) in an elevated area near the center of the Significant Gap, and considering several other locations where there was a lack of landlord interest. (Alternatives 28-30)

Collocation Review

Verizon Wireless first investigated the area of the Significant Gap for existing monopoles or towers on which to collocate its antennas, but identified none. The closest existing towers, which already support antennas of Verizon Wireless and other carriers, are Verizon Wireless's Folsom Ranch facility 2.0 miles northwest of the Proposed Facility, and the Silva Valley Parkway facility 2.0 miles north. As described in the RF Engineer's Statement, these facilities are too distant to serve the Significant Gap.

Façade- or Roof-Mounted Facilities

With no feasible collocation opportunity, Verizon Wireless next considered placement of a facility on existing buildings in the area of the Significant Gap, where a facility could be allowed with an administrative permit. Most buildings are one or two stories, and of insufficient height to elevate antennas to the height required for service, even with the additional 15 feet allowed above a rooftop, up to the building height limit of 50 feet in the R&D zone.

Verizon Wireless examined the following buildings at the highest-elevated areas in both the northern and southern areas of the Significant Gap.

1. Tomken Building

Address: 4944 Windplay Drive

Zoning: R&D–Research and Development





Elevation: 590 feet




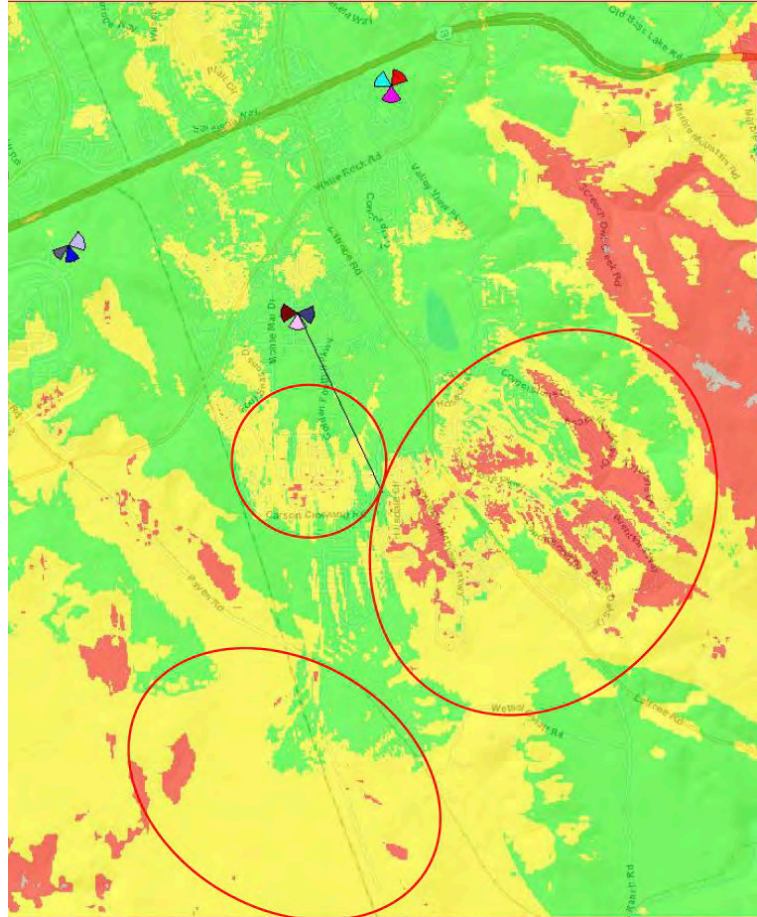
Verizon Wireless examined this three-story building with an equipment penthouse, 1.0 mile northwest of the proposed facility and 55 feet greater in elevation. Verizon Wireless engineers determined that a facility on this building a 50-foot antenna centerline cannot serve the Significant Gap due to distance. As shown on the following coverage map, in-building coverage would be lacking in much of the southern and eastern portions of the gap area, as shown in the red ovals, including the Heritage neighborhood north of Carson Crossing Drive, the southern El Dorado Business Park area, and much of the Blackstone neighborhood. This is not a feasible alternative.

Tomken Building
Low-Band 700 MHz Coverage
50-Foot Antenna Centerline

RSRP Coverage

	In-building	≥ -75 dBm
	In-vehicle	≥ -85 dBm
	Outdoor	≥ -95 dBm
	Unreliable	≥ -105 dBm

 Areas of deficient coverage



2. Rippey Building (Sky Park)

Address: 5000 Hillsdale Court

Zoning: R&D—Research and Development





Elevation: 545 feet




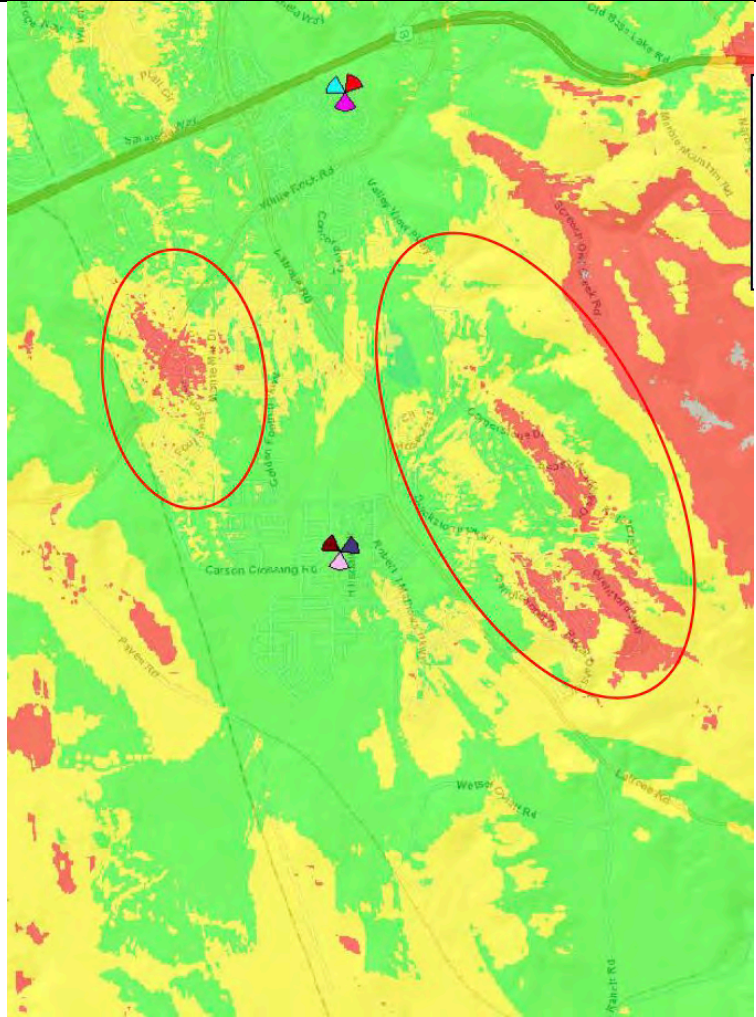
Verizon Wireless examined this three-story building with an equipment penthouse, due south of the Proposed Facility property and 10 feet greater in elevation. Verizon Wireless sent a letter of interest to the property owner, inquiring about a lease for a facility on this property, but received no reply. Verizon Wireless engineers determined that a facility on this building with a 50-foot antenna centerline cannot serve the Significant Gap due to inadequate height. As shown on the following coverage map, coverage would be lacking in the northern and eastern portions of the gap area, as shown in the red ovals, with a lack of in-vehicle coverage remaining on a stretch of White Rock Road, and less in-building and in-vehicle coverage in the Blackstone neighborhood than provided by the Proposed Facility. This is not a feasible alternative.

*Rippey Building (Sky Park)
Low-Band 700 MHz Coverage
50-Foot Antenna Centerline*

RSRP Coverage

	In-building	≥ -75 dBm
	In-vehicle	≥ -85 dBm
	Outdoor	≥ -95 dBm
	Unreliable	≥ -105 dBm

 Areas of deficient coverage



Existing Structures

Verizon Wireless next considered placement of a facility on an existing utility structure, which could be allowed with a minor use permit, but did not identify any suitable elevated structures within the Significant Gap area. Verizon Wireless did consider the following location east of the gap.

3. EID Water Tanks

Address: Seacrest Court
Zoning: VV-SP (Specific Plan)
Elevation: 780-945 feet




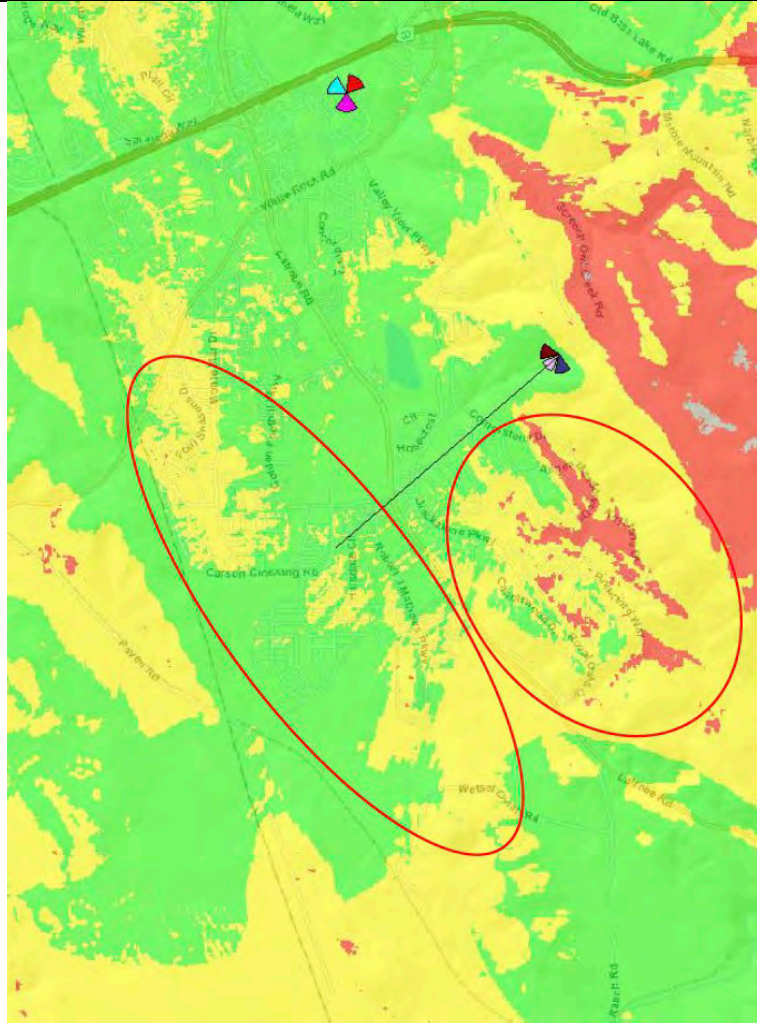
Verizon Wireless examined the four water tanks on this El Dorado Irrigation District Property, 1.3 miles northeast of the Proposed Facility and up to 410 feet greater in elevation. Verizon Wireless RF engineers determined that antennas mounted to the most elevated tank cannot serve the Significant Gap. As shown on the following coverage map, in-building coverage would be lacking in the central and eastern portions of the gap area, as shown in the red ovals, including a portion of the Heritage neighborhood north of Carson Crossing Drive and business areas around Hillsdale Court, with less in-building and in-vehicle coverage in the Blackstone neighborhood than provided by the Proposed Facility. This is not a feasible alternative.

EID Water Tanks
Low-Band 700 MHz Coverage
20-Foot Antenna Centerline

RSRP Coverage

In-building	≥ -75 dBm
In-vehicle	≥ -85 dBm
Outdoor	≥ -95 dBm
Unreliable	≥ -105 dBm

 Areas of deficient coverage



New Tower over 500 Feet from Residential Zones

Verizon Wireless next considered placement of a new tower in commercial, industrial or research and development zones at locations over 500 feet from residential zones, which could be allowed with a minor use permit.

4. 4640 Golden Foothill LLC

Address: 4640-4650 Golden Foothill Parkway

Zoning: R&D—Research & Development





Elevation: 505 feet




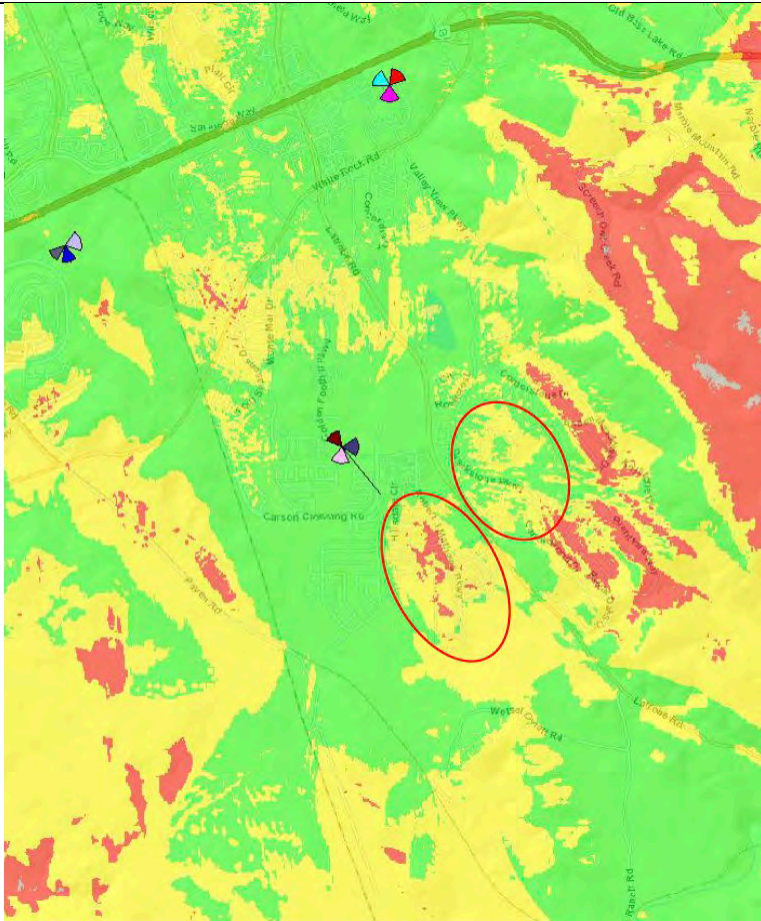
Verizon Wireless examined this property 0.3 miles northwest of the Proposed Facility and 30 feet lower in elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to low elevation and distance. As shown on the following coverage map, in-building coverage would be lacking in much of the southern and eastern portions of the gap area, as shown in the red ovals, including business areas around Hillsdale Circle and Robert J. Mathews Parkway, with less in-building coverage in the Blackstone neighborhood. This is not a feasible alternative.

4640 Golden Foothill Parkway
Low-Band 700 MHz Coverage
92-Foot Antenna Centerline

RSRP Coverage

	In-building ≥ -75 dBm
	In-vehicle ≥ -85 dBm
	Outdoor ≥ -95 dBm
	Unreliable ≥ -105 dBm

 Areas of deficient coverage



5. Fire Station 87

Address: 4680 Golden Foothill Parkway
Zoning: R&D—Research & Development
Elevation: 510 feet



Verizon Wireless examined this property 0.35 miles northwest of the Proposed Facility and 25 feet lower in elevation. Verizon Wireless sent a letter of interest to the El Dorado Hills Fire Department regarding a lease on this property, but received no reply. This location is even farther north than Alternative 5 (4640 Golden Foothill LLC) and also at a low elevation, so would provide the same inadequate coverage as that alternative. This is not a feasible alternative.

6. EID Cypress

Address: 3800 Cypress Point Court
Zoning: R&D–Research & Development
Elevation: 520 feet



Verizon Wireless examined this property 0.5 miles northwest of the Proposed Facility and at least 15 feet lower in elevation. Verizon Wireless sent a letter of interest to the property owner, El Dorado Irrigation District, but the District was uncertain of its future plans for the property and could not commit. This location is even farther north than Alternative 5 (4640 Golden Foothill LLC) and also at a low elevation, so would provide the same inadequate coverage as that alternative. This is not a feasible alternative.

7. Palms Commerce Center (Meyer)

Address: 4810 Golden Foothill Parkway
Zoning: R&D—Research & Development
Elevation: 535 feet




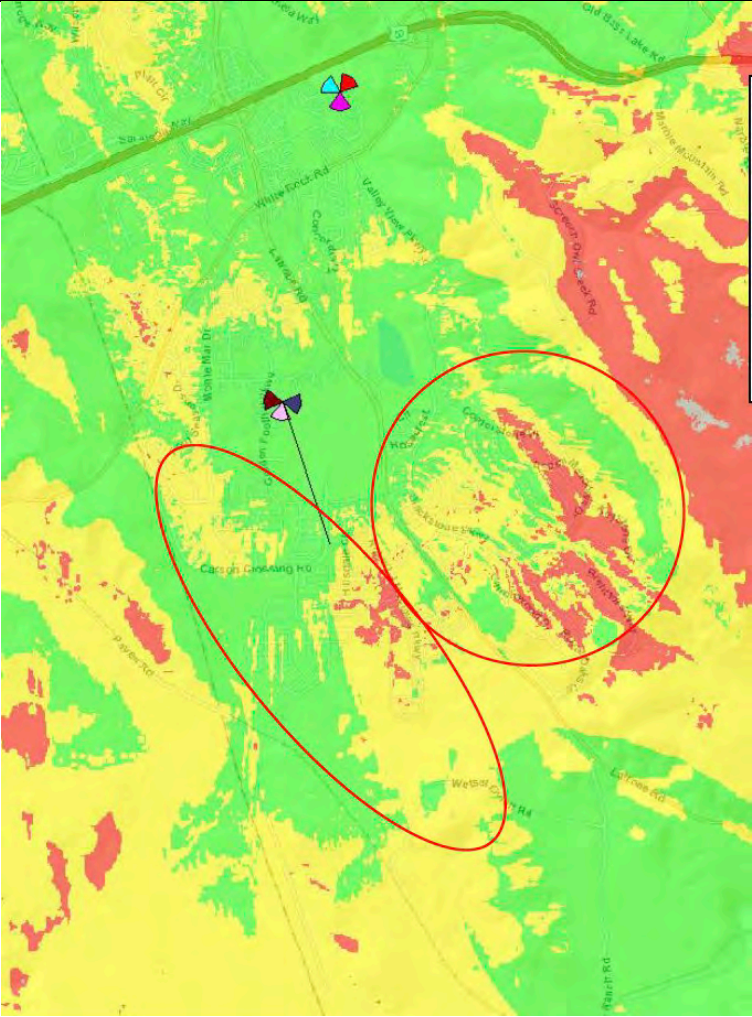
Verizon Wireless examined this property 0.6 miles northwest of the Proposed Facility at a similar elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance. As shown on the following coverage map, in-building coverage would be lacking in much of the southern and eastern portions of the gap area, as shown in the red ovals, including a portion of the Heritage neighborhood north of Carson Crossing Drive, business areas around Hillsdale Circle and Robert J. Mathews Parkway, and portions of the Blackstone neighborhood. This is not a feasible alternative.

Palms Commerce Center
Low-Band 700 MHz Coverage
92-Foot Antenna Centerline

RSRP Coverage

In-building	≥ -75 dBm
In-vehicle	≥ -85 dBm
Outdoor	≥ -95 dBm
Unreliable	≥ -105 dBm

 Areas of deficient coverage



8. Goldkey Boathouse

Address: 1120 Suncast Lane

Zoning: R&D—Research & Development

Elevation: 525 feet



Verizon Wireless examined this property 0.6 miles northwest of the Proposed Facility and 10 feet less in elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance. This location is even farther north than Alternative 8 (Palms Commerce Center), so would provide even less coverage to southern portions of the gap area than that alternative. This is not a feasible alternative.

9. Avanti Enterprises LLC

Address: 1264 Hawks Flight Court

Zoning: R&D—Research & Development

Elevation: 545 feet



Verizon Wireless examined this property 0.85 miles north of the Proposed Facility and up to 10 feet greater in elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance. This location is even farther north than Alternative 8 (Palms Commerce Center), so would provide even less coverage to southern portions of the gap area than that alternative. This is not a feasible alternative.

10. Recycling & Buy Back Center

Address: 4421 Latrobe Road

Zoning: CC–Community Commercial

Elevation: 575 feet



Verizon Wireless examined this property 1.1 miles north of the Proposed Facility and 40 feet greater in elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance. This location is even farther north than Alternative 8 (Palms Commerce Center), so would provide even less coverage to southern portions of the gap area than that alternative. This is not a feasible alternative.

11. Life Storage

Address: 4501 Latrobe Road

Zoning: R&D–Research & Development

Elevation: 600 feet



Verizon Wireless examined this property 1.1 miles north of the Proposed Facility and up to 65 feet greater in elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance. This location is even farther north than Alternative 8 (Palms Commerce Center), so would provide even less coverage to southern portions of the gap area than that alternative. This is not a feasible alternative.

12. Broadridge (Wim Core)

Address: 5261 Robert J. Mathews Parkway

Zoning: R&D—Research & Development





Elevation: 505 feet




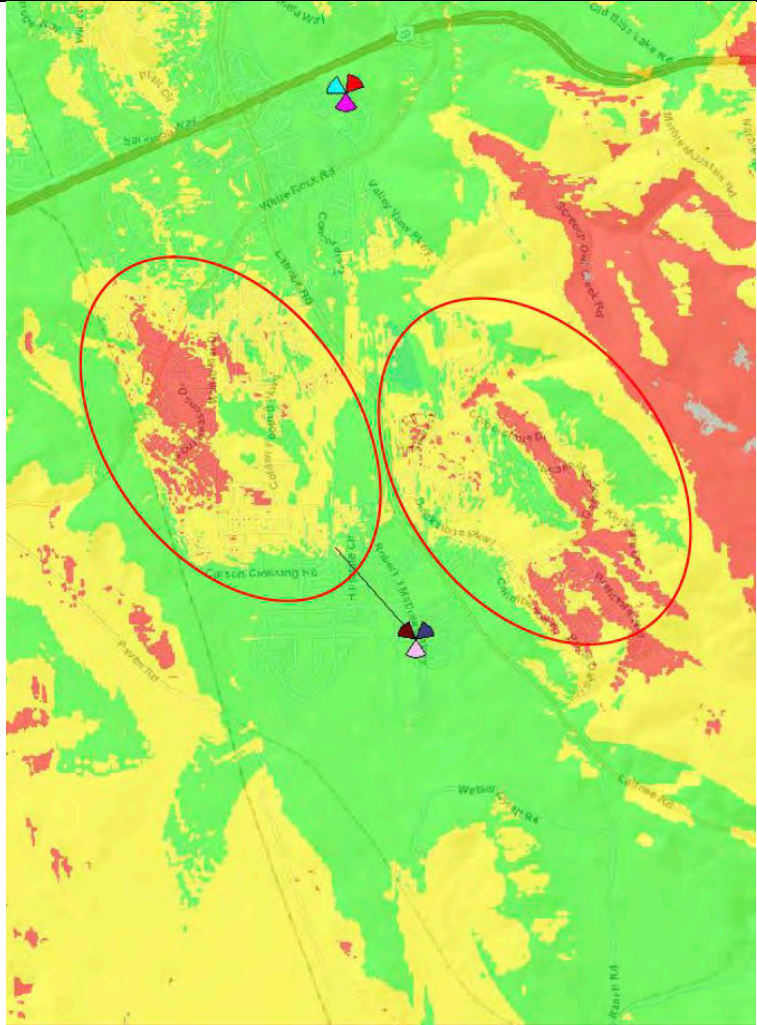
Verizon Wireless examined this large property 0.5 miles southeast of the Proposed Facility and 30 feet lower in elevation. Verizon Wireless engineers determined that a facility at the north end of this property with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance. As shown on the following coverage map, in-building coverage would be lacking in much of the northern and eastern portions of the gap area, with a lack of in-building coverage in the Heritage neighborhood north of Carson Crossing Drive, a lack of in-vehicle coverage on a stretch of White Rock Road, and less in-building and in-vehicle coverage in the Blackstone neighborhood than provided by the Proposed Facility. This is not a feasible alternative.

Broadridge (Wim Core)
Low-Band 700 MHz Coverage
92-Foot Antenna Centerline

RSRP Coverage

	In-building ≥ -75 dBm
	In-vehicle ≥ -85 dBm
	Outdoor ≥ -95 dBm
	Unreliable ≥ -105 dBm

 Areas of deficient coverage



13. Slidebelts Inc. (Monson)

Address: 5272 Robert J. Mathews Parkway

Zoning: CC-SP (Specific Plan)

Elevation: 525 feet



Verizon Wireless examined this property 0.75 miles southeast of the Proposed Facility and 10 feet lower in elevation. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance. This location is even farther south than Alternative 13 (Broadridge), so would provide even less coverage to northern portions of the gap area than that alternative. This is not a feasible alternative.

14. El Dorado Investment Co.

Address: Wetsel Oviatt Road, APN 117-020-026

Zoning: IL-Light Industrial

Elevation: 515 feet



Verizon Wireless examined this property 1.4 miles southeast of the Proposed Facility and at least 20 feet lower in elevation. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance. This location is much farther south than Alternative 13 (Broadridge), so would provide even less coverage to northern portions of the gap area than that alternative. This is not a feasible alternative.

15. Winn Ridge Investments Ca LLC

Address: Latrobe Road, APN 117-720-012

Zoning: R&D—Research & Development

Elevation: 550 feet



Verizon Wireless examined this property 0.75 miles southeast of the Proposed Facility and 15 feet greater in elevation. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance. This location is as far south as Alternative 13 (Broadridge), so would provide even less coverage to northern portions of the gap area than that alternative. This is not a feasible alternative.

16. Frontier Dental

Address: 1108 Investment Boulevard

Zoning: R&D—Research & Development

Elevation: 535 feet



Verizon Wireless examined this property 0.7 miles southeast of the Proposed Facility at a similar elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but received no reply. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance. This location is as far south as Alternative 13 (Broadridge), so would provide the same inadequate coverage to northern portions of the gap area as that alternative. This is not a feasible alternative.

17. Tower Investments Office Building (Vii De)

Address: 1104 Investment Boulevard

Zoning: R&D—Research & Development

Elevation: 540 feet



Verizon Wireless examined this property 0.65 miles southeast of the Proposed Facility and 5 feet greater in elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but received no reply. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance. This location is almost as far south as Alternative 13 (Broadridge), so would provide the same inadequate coverage to northern portions of the gap area as that alternative. This is not a feasible alternative.

18. Investment Plaza (Top Revenue)

Address: 1101-1107 Investment Boulevard

Zoning: R&D—Research & Development

Elevation: 545 feet



Verizon Wireless examined this property 0.5 miles southeast of the Proposed Facility and up to 10 feet greater in elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but received no reply. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance. This location is as almost as far south as Alternative 13 (Broadridge), so would provide the same inadequate coverage to northern portions of the gap area as that alternative. This is not a feasible alternative.

19. Wood





Address: Robert J. Mathews Parkway, APNs 117-088-022, 117-088-023
Zoning: R&D—Research & Development
Elevation: 530 feet




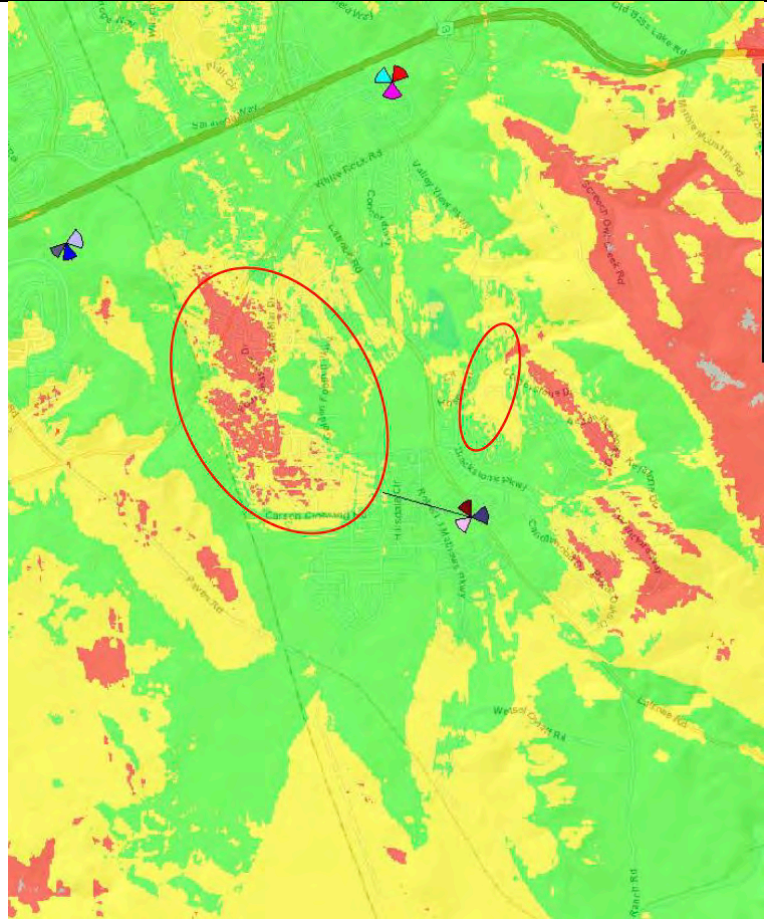
Verizon Wireless examined this property 0.45 miles southeast of the Proposed Facility and five feet lower in elevation. The property was recently acquired from Tebo12 LLC. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance. As shown on the following coverage map, coverage would be lacking in northern portions of the gap area, with a lack of in-vehicle coverage along White Rock Road and surrounding residential areas, and a lack of in-building coverage in the Heritage neighborhood north of Carson Crossing Drive, with less in-building coverage in the Blackstone neighborhood than provided by the Proposed Facility. This is not a feasible alternative.

Wood
Low-Band 700 MHz Coverage
92-Foot Antenna Centerline

RSRP Coverage

	In-building	≥ -75 dBm
	In-vehicle	≥ -85 dBm
	Outdoor	≥ -95 dBm
	Unreliable	≥ -105 dBm

 Areas of deficient coverage



20. Lowrey Investment Group

Address: 1103-1105 Investment Boulevard, APNs 117-088-017, 117-088-020

Zoning: R&D—Research & Development

Elevation: 530 feet



Verizon Wireless examined this property 0.5 miles southeast of the Proposed Facility at a similar, slightly lower elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but received no reply. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance. This location is even farther southeast than Alternative 20 (Wood), so would provide even less coverage to northern portions of the gap area as that alternative. This is not a feasible alternative.

21. Matson





Address: 5151 Hillsdale Circle
Zoning: R&D—Research & Development
Elevation: 515 feet




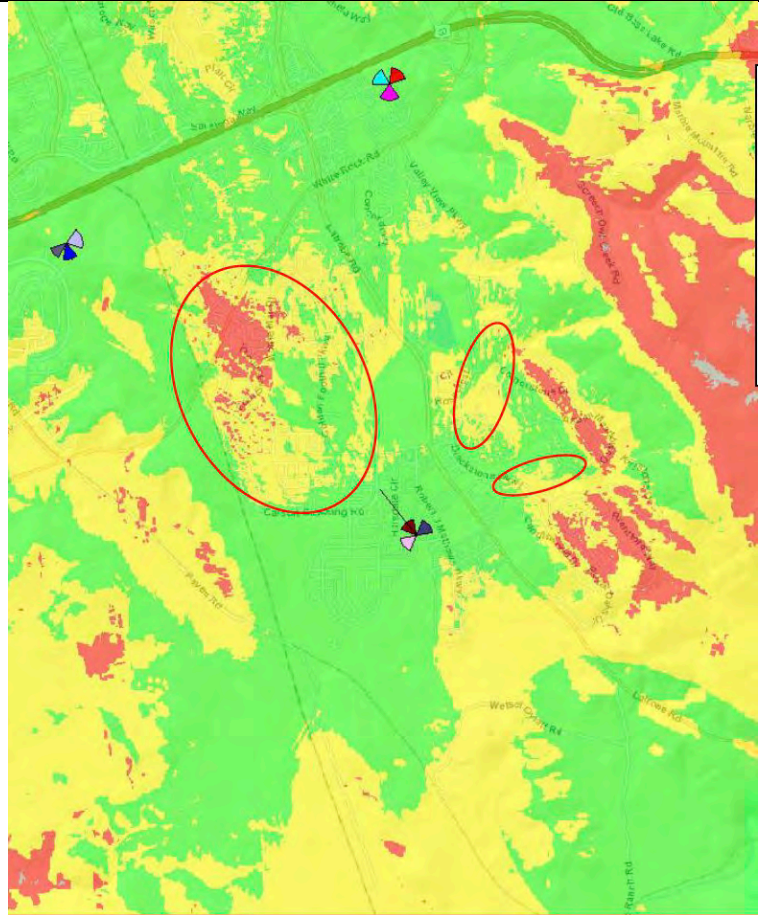
Verizon Wireless examined this property 0.3 miles southeast of the Proposed Facility and at least 20 feet lower in elevation. The property was recently acquired from UF Trucking. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance and low elevation. As shown on the following coverage map, coverage would be lacking in northern portions of the gap area, with a lack of in-vehicle coverage along White Rock Road and surrounding residential areas, and a lack of in-building coverage in the Heritage neighborhood north of Carson Crossing Drive, with less in-building coverage in the Blackstone neighborhood than provided by the Proposed Facility. This is not a feasible alternative.

Matson
Low-Band 700 MHz Coverage
92-Foot Antenna Centerline

RSRP Coverage

	In-building	≥ -75 dBm
	In-vehicle	≥ -85 dBm
	Outdoor	≥ -95 dBm
	Unreliable	≥ -105 dBm

 Areas of deficient coverage



22. Youngdahl

Address: 1234 Glenhaven Court

Zoning: R&D—Research & Development





Elevation: 520 feet




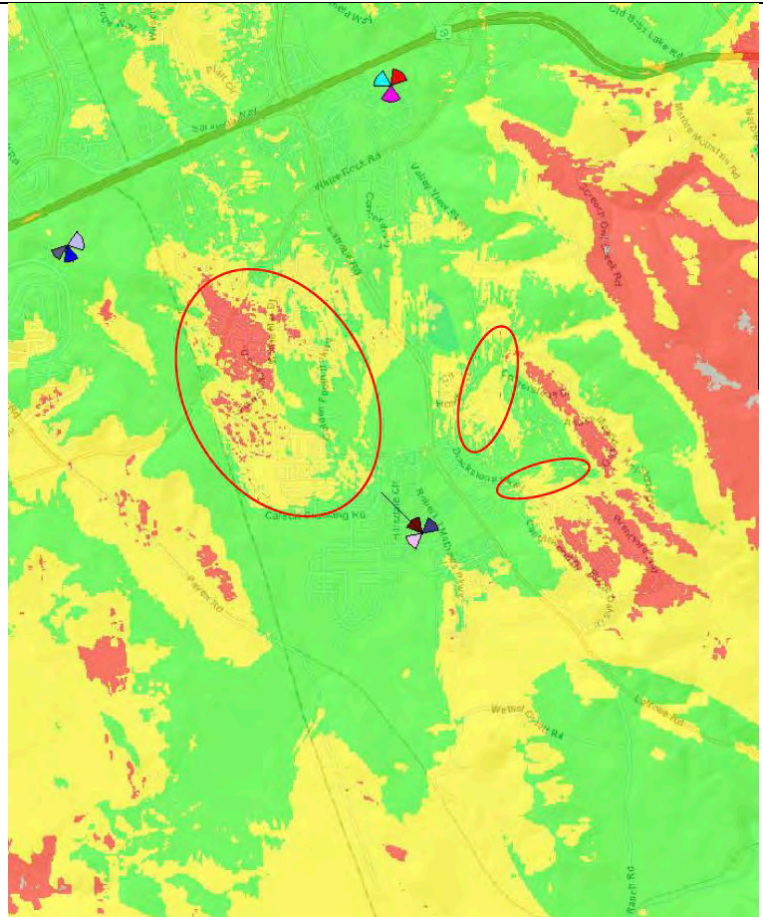
Verizon Wireless examined this property 0.3 miles southeast of the Proposed Facility and 15 feet lower in elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance and low elevation. As shown on the following coverage map, coverage would be lacking in northern portions of the gap area, with a lack of in-vehicle coverage along White Rock Road and surrounding residential areas, and a lack of in-building coverage in the Heritage neighborhood north of Carson Crossing Drive, with less in-building coverage in the Blackstone neighborhood than provided by the Proposed Facility. This is not a feasible alternative.

Youngdahl
Low-Band 700 MHz Coverage
92-Foot Antenna Centerline

RSRP Coverage

	In-building ≥ -75 dBm
	In-vehicle ≥ -85 dBm
	Outdoor ≥ -95 dBm
	Unreliable ≥ -105 dBm

 Areas of deficient coverage



23. Montoro

Address: 1235 Glenhaven Court

Zoning: R&D—Research & Development





Elevation: 520 feet




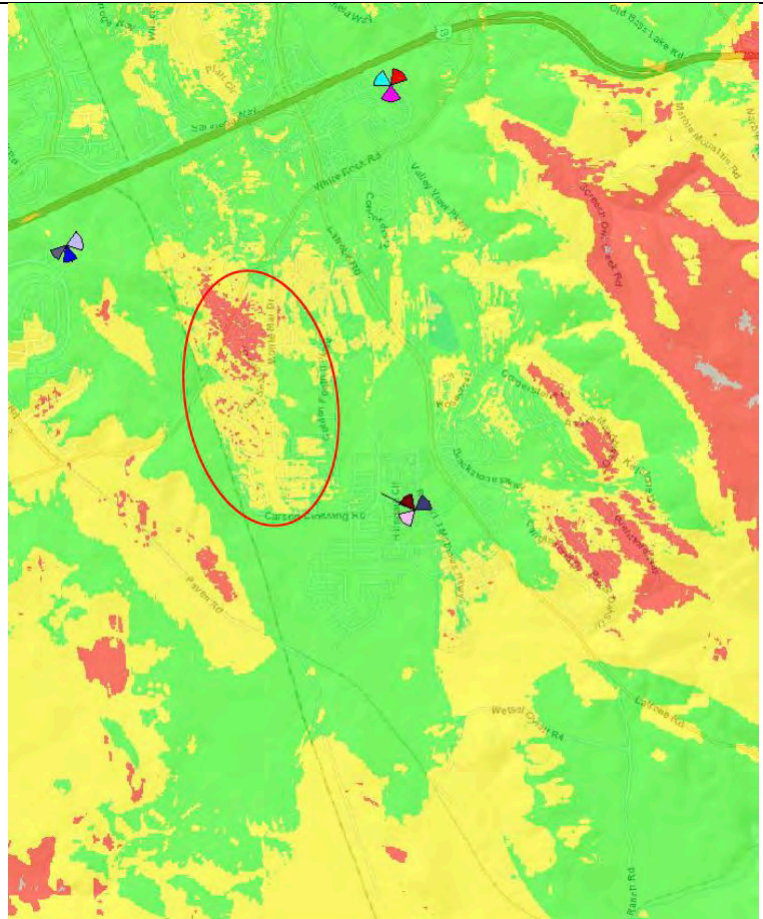
Verizon Wireless examined this property 0.2 miles southeast of the Proposed Facility and 15 feet lower in elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance and low elevation. As shown on the following coverage map, coverage would be lacking in northern portions of the gap area, with a lack of in-vehicle coverage along White Rock Road and surrounding residential areas, and a lack of in-building coverage in the Heritage neighborhood north of Carson Crossing Drive. This is not a feasible alternative.

Montoro
Low-Band 700 MHz Coverage
92-Foot Antenna Centerline

RSRP Coverage

	In-building	≥ -75 dBm
	In-vehicle	≥ -85 dBm
	Outdoor	≥ -95 dBm
	Unreliable	≥ -105 dBm

 Areas of deficient coverage



24. Rjm Property Holdings

Address: 5000 Robert J. Mathews Parkway

Zoning: R&D—Research & Development





Elevation: 520 feet




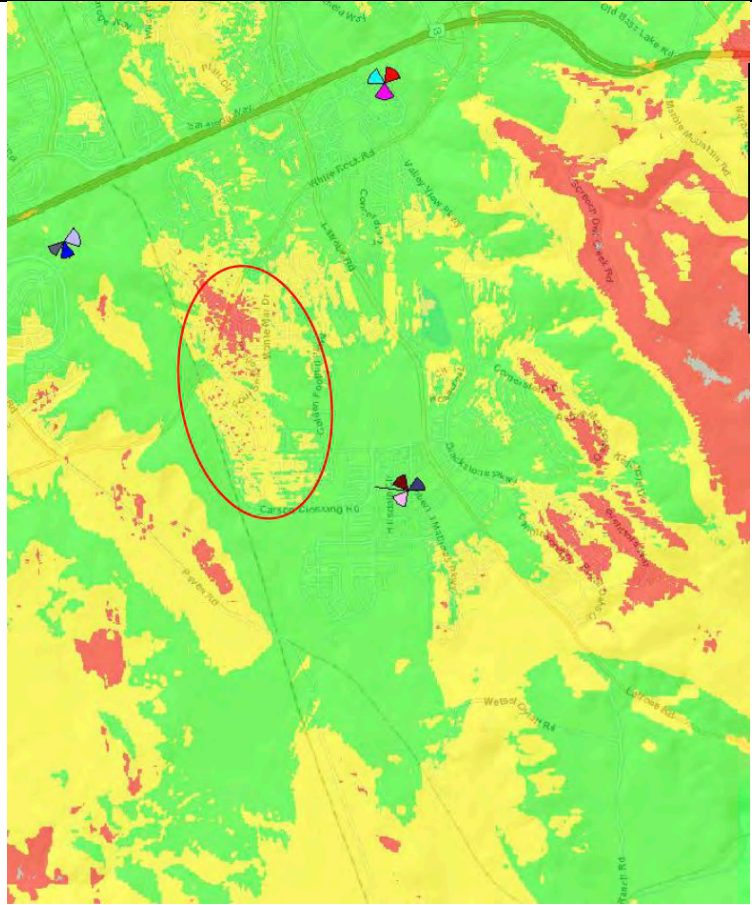
Verizon Wireless examined this property 0.15 miles east of the Proposed Facility and 15 feet lower in elevation. Verizon Wireless engineers determined that a facility at this location with the same 92-foot centerline as the Proposed Facility cannot serve the Significant Gap due to distance. As shown on the following coverage map, coverage would be lacking in northern portions of the gap area, with a lack of in-vehicle coverage along White Rock Road and surrounding residential areas, and a lack of in-building coverage in the Heritage neighborhood north of Carson Crossing Drive. This is not a feasible alternative.

Rjm Property Holdings
Low-Band 700 MHz Coverage
92-Foot Antenna Centerline

RSRP Coverage

	In-building	≥ -75 dBm
	In-vehicle	≥ -85 dBm
	Outdoor	≥ -95 dBm
	Unreliable	≥ -105 dBm

 Areas of deficient coverage



25. Peery Foundation

Address: Robert J. Mathews Parkway, APN 117-088-007

Zoning: R&D—Research & Development

Elevation: 520 feet



Verizon Wireless examined this property 0.2 miles northeast of the Proposed Facility and 15 feet lower in elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but the property owner declined. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance and low elevation. This location is even farther east than Alternative 25 (Rjm Property Holdings), so would provide the same inadequate coverage to the west as that alternative. This is not a feasible alternative.

26. CSS Properties

Address: 4925 Robert J. Mathews Parkway

Zoning: R&D—Research & Development

Elevation: 520 feet



Verizon Wireless examined this property 0.2 miles northeast of the Proposed Facility and 15 feet lower in elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but received no reply. Verizon Wireless engineers determined that a facility on this property cannot serve the Significant Gap due to distance and low elevation. This location is even farther east than Alternative 25 (Rjm Property Holdings), so would provide the same inadequate coverage to the west as that alternative. This is not a feasible alternative.

New Tower within 500 Feet of Residential Zones

Verizon Wireless next considered placement of a new tower within 500 feet of residential zones, which would require a conditional use permit.

27. Proposed Facility

Address: 4994 Hillsdale Circle
Zoning: R&D–Research & Development
Elevation: 535 Feet



The Proposed Facility has been thoughtfully designed to minimize any impact on the surrounding area. Verizon Wireless proposes to conceal its antennas within a 100-foot tower facility camouflaged as a pine tree. The antennas will be concealed within faux foliage and branches, and branches will extend beyond and above the antennas, providing a realistic tapered crown. The treepole will be placed within a 1,305-square foot lease area, surrounded by an eight-foot chain link fence with slats. The equipment area will also contain radio cabinets and a diesel generator to provide continued service during power outages and emergencies. Verizon Wireless will plant new landscaping on the west side of the equipment area facing Carson Crossing Drive.

There will be space on the tower and in the equipment area for future collocation of antennas and equipment by additional wireless carriers, minimizing the need for future towers in the vicinity, as required by the Code.

There is ample room for a wireless facility at the rear of this property because the existing building is set back 125 feet from the rear property line, a larger rear setback than any other property west of Hillsdale Circle.

With panel antennas elevated at a 92-foot centerline at this optimal location near the center of the Significant Gap, the Proposed Facility will provide new, reliable Verizon Wireless service to the south El Dorado Hills area, as shown on the coverage maps on Page 5. This is Verizon Wireless’s preferred location and design for the Proposed Facility.

28. 5050 Hillsdale Circle (Ewing)

Address: 5050 Hillsdale Circle

Zoning: R&D—Research & Development

Elevation: 535 feet



Verizon Wireless examined this property 0.15 miles south of the Proposed Facility at the same elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but received no reply. Lacking landlord interest, this is not a feasible alternative.

29. Western Water

Address: 5088 Hillsdale Circle

Zoning: R&D—Research & Development

Elevation: 500 feet



Verizon Wireless examined this property 0.2 miles south of the Proposed Facility and 35 feet lower in elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but received no reply. Lacking landlord interest, this is not a feasible alternative.

30. iStorage

Address: 5110 Hillsdale Circle

Zoning: R&D—Research & Development

Elevation: 495 feet



Verizon Wireless examined this property 0.3 miles south of the Proposed Facility and 40 feet lower in elevation. Verizon Wireless sent a letter of interest to the property owner regarding a lease on this property, but received no reply. Lacking landlord interest, this is not a feasible alternative.

V. Conclusion

Verizon Wireless has considered 30 specific alternatives to fill the Significant Gap in service in south El Dorado Hills. Based upon the values expressed in the El Dorado County Ordinance Code, the Proposed Facility clearly constitutes the least intrusive feasible location for Verizon Wireless's new facility.



- 11 Life Storage
- 10 Recycling Center
- 3 EID Tanks
- 1 Tomken
- 9 Avanti
- 8 Goldkey
- 7 Palms Commerce Center
- 6 EID Cypress
- 5 Fire Station 87
- 4 4640 Golden Foothill
- 26 CSS
- 25 Peery
- 27 Proposed Rippey
- 2 Rippey
- 24 Rjm
- 23 Montoro
- 19 Wood
- 28 5050 Hillside
- 22 Youngdahl
- 20 Lowrey
- 29 Western Water
- 21 Matson
- 18 Investment Plaza
- 17 Tower Investments
- 16 Frontier Dental
- 15 Winn Ridge
- 30 iStorage
- 12 Broadridge
- 13 Slidebelts
- 14 El Dorado Investment