



TUOLUMNE HERITAGE TRAIL

Phase 3 – Existing Conditions Report

————— May 29, 2026 —————



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1 Tuolumne Heritage Trail Phase 3 Overview

The Tuolumne Heritage Trail (previously known as the Gold Rush Path) is envisioned to be a nearly 15-mile path that connects Tuolumne County's historic gold rush towns of Columbia, Sonora, Jamestown and the Chicken Ranch Tribal Lands. The multi-use facility corridor is envisioned to be delivered over six phases. Phase 1 extends along State Road (SR) 49 from the southwestern boundary of Sonora through downtown and north to Sonora High School. Phases 2 and 3 of the Tuolumne Heritage Trail will further extend the facility along SR 49 to the southern boundary of Columbia (Phase 2), and then north along Parrotts Ferry Road to the Columbia State Historic Park (Phase 3).

This Tuolumne Heritage Trail Phase 3 Existing Conditions Report provides an overview relevant plans and policies, the communities, and the existing built and natural environment along the Phase 3 portion of the corridor into Columbia. The extents of the Phase 3 corridor are identified by the dark blue segment shown below in **Figure 1**.

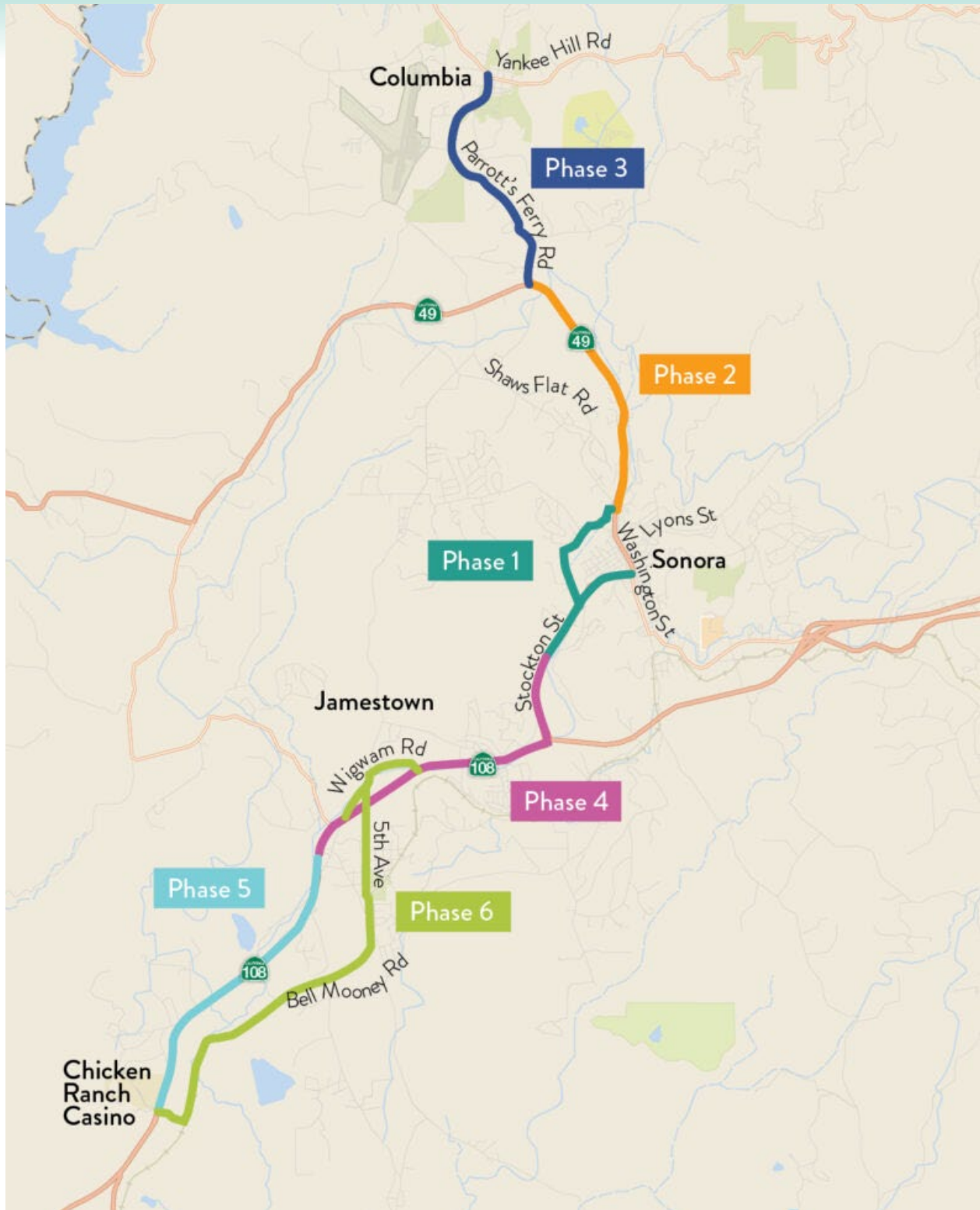


Figure 1. Tuolumne Heritage Trail Map

2 Existing Plans & Policies

This section establishes the groundwork for developing multi-modal corridor solutions by presenting a review of previous and current plans which inform the existing conditions report by adding context for the current conditions and future transportation projects and long-reaching goals for the area. The following documents were reviewed to maintain consistency among various policies and programs.

2.1 Vision Sonora Plan (2013)

Vision Sonora is a vision plan for the study limits of SR 49 from SR 108 to Preston Place and S. Washington Street from SR 108 to SR 49. The Plan describes a community vision for the future character of Sonora that boosts economic vitality along main transportation corridors. Main components of the Plan describe design guidelines for corridor landscaping, multimodal circulation, wayfinding, and economic development. Design guidelines from this Plan are applicable to segment 2 of the Project Area. The Plan describes Washington Street, including a portion of the Project Area, as a gateway to downtown Sonora. Improvements would include new transit stops, drought-tolerant landscaping, entry-sign monument, and re-configuration of the Shaws Flat / School Street intersection to accommodate pedestrians from the Sonora High School.

2.2 Tuolumne Tomorrow: Tuolumne County Regional Blueprint Project Report (2012) and GHG Study (2012)

Tuolumne Tomorrow is a long-range plan providing a vision for future development in land use, transportation, housing, economic development, and ecological conservation, and is a joint effort between the City of Sonora, Tuolumne County, and Tuolumne County Transportation Council. As a regional effort, the report and GHG study considers the emissions for future growth scenarios that informs the Blueprint Program. The Program provides a framework for agencies to promote mobility, increased housing and transportation choices, job accessibility, healthy communities, and economic development in the future.

2.3 General Plans

2.3.1 Vision Sonora Plan (2013)

Vision Sonora is a vision plan for the study limits of SR 49 from SR 108 to Preston Place and S. Washington Street from SR 108 to SR 49. The Plan describes a community vision for the

future character of Sonora that boosts economic vitality along main transportation corridors. Main components of the Plan describe design guidelines for corridor landscaping, multimodal circulation, wayfinding, and economic development. Design guidelines from this Plan is applicable to segment 3 of the Project Area. The plan mentions that the Yosemite Area Regional transportation System (YARTS) is considering potential changes to transit service concurrently with the development of the plan, and in particular Route 2 which connects Sonora to Sierra Village and Columbia and Columbia College is reevaluating service changes. Since this plan was published, the YARTS Sonora Highway 120 service and the seasonal Adventure Trolley service have filled the need gap for an East-West running service to connect through Columbia via Parrotts Ferry Road.

2.3.2 Tuolumne Tomorrow: Tuolumne County Regional Blueprint Project Report (2012) and GHG Study (2012)

In 2007 the County of Tuolumne began a Regional Blueprint Planning process for directing future growth and raise the quality of life in county over the sequential decades. This coordinated effort has included the City of Sonora, Tuolumne County, the Tuolumne County Transportation Council, and community members, who collaborated on the development of guiding Principles for growth and development and studied the potential effects of the likely land use development, possible alternative growth scenarios, the transportation system, housing, local economy, quality of life, natural resources, and the environment for the entire area with the effects of greenhouse emissions. In 2012, this plan update was updated and adopted by the Board of Supervisors as the preferred growth scenario for Tuolumne County through the year 2040. This plan mentions the support of an inter-county bus transfer stop in Columbia near State Route 49 to support multimodal connections in the county.

2.4 General Plans

2.4.1 Tuolumne County General Plan (2018)

The County general plan provides a vision and guidance for development within unincorporated County area. Standards from the County's general plan and zoning code apply to segment 3 and 4 of the project area.

2.4.2 City of Sonora General Plan (2020)

The City's general plan provides guidance for future development within the City's limits. Development standards are codified in Titles 10, 12, 15, and 17 of the municipal code

(https://library.municode.com/ca/sonora/codes/municipal_code). Standards from the City's general plan and zoning code apply to segment 2 of the project area.

2.5 Transportation Plans

2.5.1 Tuolumne County Active Transportation Plan (2020)

The County's Active Transportation Plan (ATP) is a strategic plan for prioritizing proposed pedestrian and bicycle networks that promote mobility and access equity. The ATP describes projects that meet the needs of local residents while accommodating regional growth. The ATP notes that 81% of residents drive alone in a personal vehicle to access resident-serving goods and services and analyzed needs based on anecdotal and computer data. The ATP further recommends infrastructure projects that are anticipated to meet the needs of the community.

2.5.2 Tuolumne County Airport Land Use Compatibility Plan (2025)

The County's Airport Land Use Compatibility Plan (ALUCP) describes allowable land uses that are compatible with federal aviation regulations surrounding the Columbia and Pine Mountain Lake airports. The Columbia airport is located approximately one mile northwest of the northern SR 49 segment. A portion of the Project Area lies within the airport influence zone which is described as areas that are routinely affected by aircraft operations at an airport and within which certain land use actions are subject to airport land use compatibility review.

2.5.3 Final Draft of 2024 Regional Transportation Plan

The 2022 Regional Transportation Plan is a 20-year plan prepared by TCTC and focuses on the facilitation of the movement of people and goods for work, shopping, education, recreation, and other purposes, utilizing a variety of transportation modes such as automobiles, trucks, buses, trains, planes, bicycles, and pedestrian pathways. The Plan describes the County's existing conditions, regional vision and goals, actions to achieve transportation measures, and financial feasibility.

2.5.4 2013 General Plan and Regional Transportation Plan Evaluation and Analysis

The 2013 General Plan and RTP Analysis Report provides an evaluation and analysis of the Tuolumne County Transportation Council's and the County's planning and policy documents to determine which General Plan and Regional Transportation Plan (RTP) goals, policies, and/or programs should be amended or added to align with the Distinctive Communities growth scenario. The growth scenario is described in the *Tuolumne Tomorrow* plan as the preferred growth scenario within the region.

2.5.5 State Route 108/49 Multimodal Congested Corridor Plan (2021)

The multimodal study identifies transportation needs and opportunities to improve the state highway corridor. The Plan documented the existing and projected future multimodal conditions and assets of the SR 108/49 corridor. The study conducted performance assessments of facilities and traffic behavior, and presented and analyzed strategies' abilities to enhance safety, reduce congestion, reduce GHG emissions, and enhance multimodal opportunities. The outcome was to identify analyzed strategies eligible for funding that could address corridor deficiencies. Existing conditions data from this Plan is incorporated into the findings below

2.5.6 Columbia Circulation Improvement Plan (2010)

The improvement plan provides guidance on the implementation of new land use and transportation coordinated strategies for growth and capital improvements. The CCIP supplements the Columbia Community Plan and identifies and evaluates various improvement projects for existing roadways, bike pathways, and trails that will help create a network of safe, comfortable, historically sensitive, pedestrian and bicycle-friendly routes. The improvement projects identified in this plan are considered in the segment analysis below.

3 Equity Analysis

3.1 Demographic Profile

The Central Sierra Me-Wuk people are the original inhabitants of the Sierra Nevada foothill region, with a presence in the area dating back thousands of years. ¹. Descendants of the Central Sierra Me-Wuk people currently still live in the region. The Tuolumne Band of Me Wuk Indians, a federally recognized sovereign tribe, currently has 485 members and roughly 200 of them reside in the Tuolumne Rancheria, east of City of Sonora. The Chicken Ranch Rancheria of Me-Wuk Indians of California is also a federally recognized sovereign tribe, occupying a 2.85-acre rancheria near Jamestown. Despite their small land base, the tribe has established a significant economic presence in the region through tribally owned businesses, most notably the Chicken Ranch Casino Resort. Prior to European colonial settlement, the Me-Wuk people population in the California region totaled roughly 11,000 to 20,000 people in the mid-18th century.². . . . The Me-Wuk people maintained their presence in the region through the arrival of European colonial settlers beginning in the

¹ 2018 Tuolumne County General Plan

² <https://www.cagenweb.org/tuolumne/his.htm>

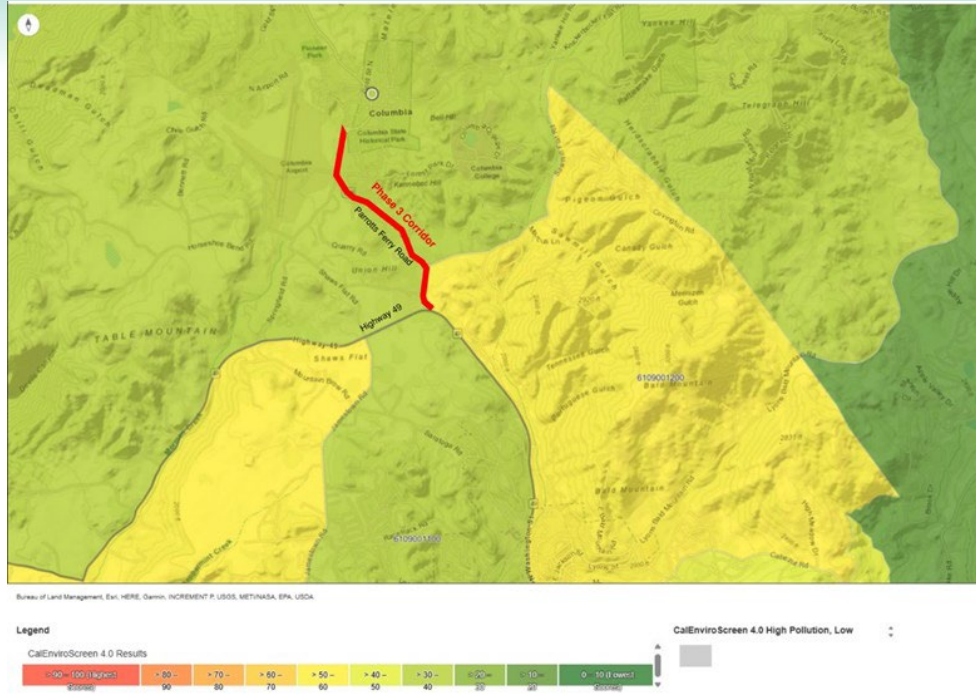


Figure 2. CalEnviroScreen 4.0 Results, Phase 3 Corridor

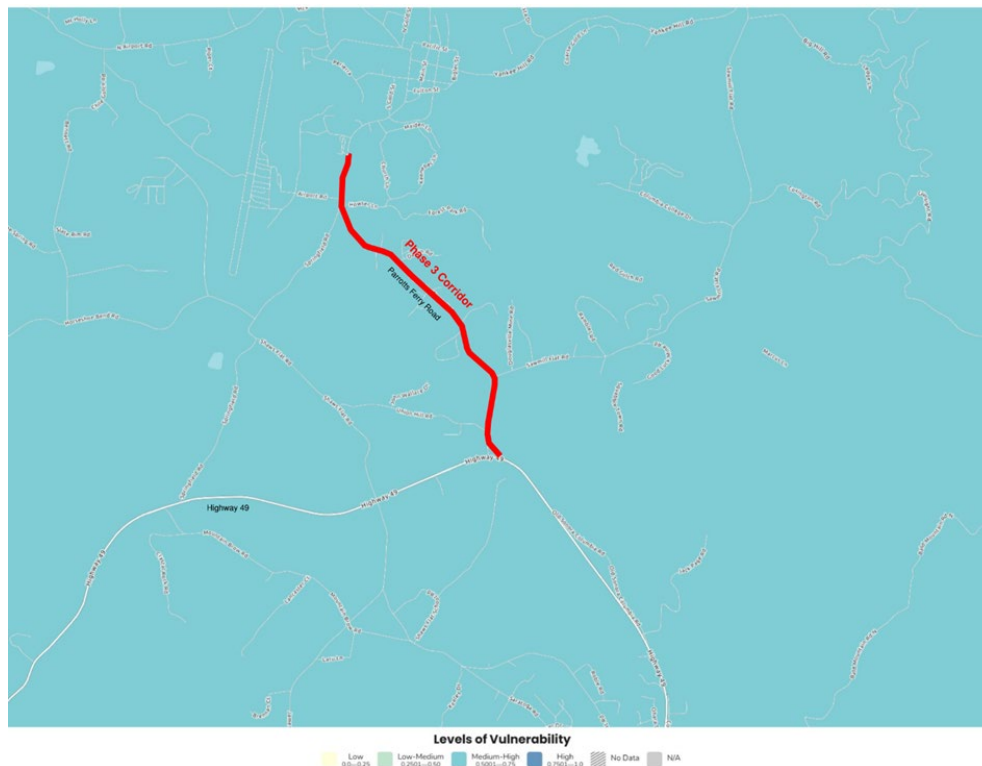


Figure 3. Overall Social Vulnerability Index per Census Tract

4 Circulation & Mobility

4.1 Key Corridors and Intersections

Parrotts Ferry Road is named for Parrotts Ferry which is a historic ferry crossing established in 1860 by Thomas H. Parrott that connected the mining towns of Tuttletown and Vallecito. In 1903, the first bridge across the New Melones Lake reservoir, and the ferry service became obsolete as a result after 40 years of operational service. The Columbia-Vallecito bridge that present-day Parrotts Ferry Road runs overtop of was built in 1979 and is one of the 17 commemorative markers on the Mark Twain Bret Harte Trail through the Gold Country which attracts visitors and cyclists annually. Parrotts Ferry Road is a 12 mile paved stretch of road that runs between Calaveras County and Tuolumne County over New Melones Lake via the Columbia-Vallecito bridge. Parrotts Ferry Road consists of a north-south, two-lane arterial, running from it's intersection with SR 49 between Shaws Flat and Browns Flat communities, and runs north through Columbia and west into Vallecito over the New Melones Lake. Key intersections include the Parrotts Ferry/SR 49 signalized intersection with one turning lane. Airport road is an important connecting road that connects the greater Sonora area to the Columbia Airport. The intersection between adjacent road entrances for the Gold Rush Mobile Home Park and the Columbia Mobile Park, near the Columbia Mobile Home park bus stop along the Columbia College Shuttle route may benefit from signalized crossing safety measures. The Springfield Road/ Parrotts Ferry Road/ Howser Lane three-way intersection is another key intersection.

Local arterials that connect surrounding rural residences and businesses to the Parrotts Ferry Road corridor include:

- Union Hill Road
- Sawmill Flat Road
- Columbia Village Drive
- Covered Wagon Drive
- Quarry Roads
- Becky River Lane
- McKellar Drive
- Bull Pine Lane
- Loop Road
- Damin Road
- Springfield Road
- Howser Lane
- Airport Road
- Church Street
- Valparaiso Street / Gold Springs Drive / Porcina Way
- Iron Canyon Cove

4.2 Origins and Destination Analysis

Origin and destination data is typically measured in trips based on a mode of travel i.e., vehicle, bicycle, transit, and/or walking. According to Replica data from Fall 2021, 2406 total trips were made on a typical weekday that followed the trend of beginning in

Calaveras 54%, Stanislaus 18%, San Joaquin 7%, Mariposa 6%, Amador 4% (excluding Tuolumne County) and ended within Tuolumne County. For trips to Tuolumne County for recreational purposes, 40% originated in Calaveras, 30% originated in Stanislaus, 10% originated in San Joaquin, and 7% originated in Fresno (30 trips). During the weekend, total trips to the Phase 3 Corridor decreases (2020), while the total number of recreational trips on the weekend increases (53 trips). Commute patterns show that 97% of adult residents near the Project Area drive themselves, walk or carpool with others, with a majority traveling alone. Commute patterns show that about 10% of adult residents near the Phase 3 Corridor work outside of the County and take about 30 minutes to get to work. Approximately 30% of residents who don't work from home begin their work commute between 7 AM and 9 AM. There is no data available for commuters originating from outside California.

Table 1. Origin and Destination for Commuters along Parrotts Ferry Rd Phase 3 Corridor

	Census tract 11	Census tract 12	Census tract 21.01
Works in County of residence	80.20%	86.40%	89.60%
Works outside County of residence	19.80%	13.60%	10.40%
Work from Home	32.30%	29.20%	32.90%
<i>Source: US Census Bureau ACS 5-Year Estimates, S080, Replica HQ</i>			

Parrotts Ferry Road features various attractions around the Phase 3 Corridor Project Corridor that include nature trails, Columbia State Historic Park, local restaurants, wineries and breweries, Columbia Airport, and various hotels and campgrounds. Columbia State Historic Park stands as a distinct historic resource and tourism magnet, attracting approximately 497,000 visitors annually¹³, and sits in close relative proximity to other Gold Rush-era communities of Sonora, Jamestown, Big Oak Flat, and Groveland along the way¹⁴ which generate a significant amount of traffic in the area. Columbia College is a significant

¹³ [California State Parks Seek Input Regarding Columbia Retail Concessions in Tuolumne County](#)

¹⁴ 2020 TUOLUMNE COUNTY ACTIVE TRANSPORTATION PLAN.

regional destination for education and employment. Additionally, the area also attracts outdoor tourists due to its connection to Yosemite National Park and the High Sierras broadly, and Don Pedro Reservoir, Tuttletown Recreation Area/New Melones Lake, and Pine Mountain Lake more locally.

4.2.1 Peak visitor times

Peak traffic times represent a greater number of vehicles passing through roadway intersections at certain times of the day and year. The Phase 3 Corridor extends from the intersection at SR 49 and Parrotts Ferry Road northbound to the intersection of Parrotts Ferry Road and Columbia Elementary School Road. Data on the annual average daily traffic volume are shown in .

Table 2. Average Annual Peak Hour at Key Intersections	
	Golden Chain Highway (SR 49) / Parrotts Ferry Road
BACK_PEAK_HOUR	1,350
BACK_AADT	13,300
AHEAD_PEAK_HOUR	570
AHEAD_AADT	4,800
Note: Ahead and Back indicates approaching vehicular traffic and departing traffic, respectively, from a stationary object.	
Sources: Caltrans 2022 (AADT)	

4.2.2 Potential queuing issues

Intersections have the greatest potential queuing issues, especially along SR 49 from Downtown Sonora into Columbia. LOS analyses regarding AM and PM peak hours were conducted at high-volume intersections in the project area. The analyses were forecasted for the years 2030 and 2040. In the 2021 Tuolumne County Local Roadway Safety Plan, this intersection is noted as an emphasis area on the high injury network as an intersection with crashes where injuries were reported.

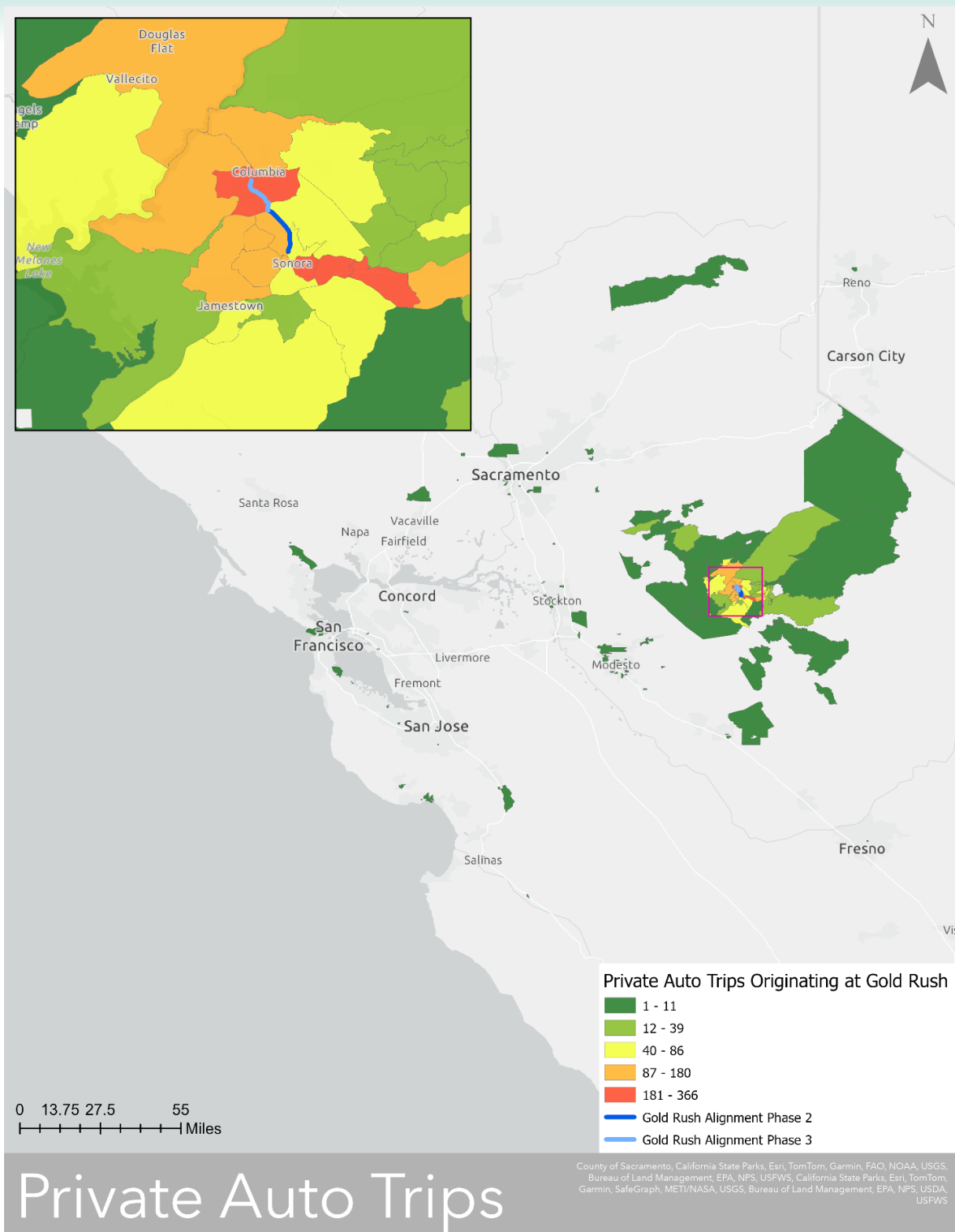


Figure 4. Vehicular Origins by Census Block Group at Phase 3 Corridor

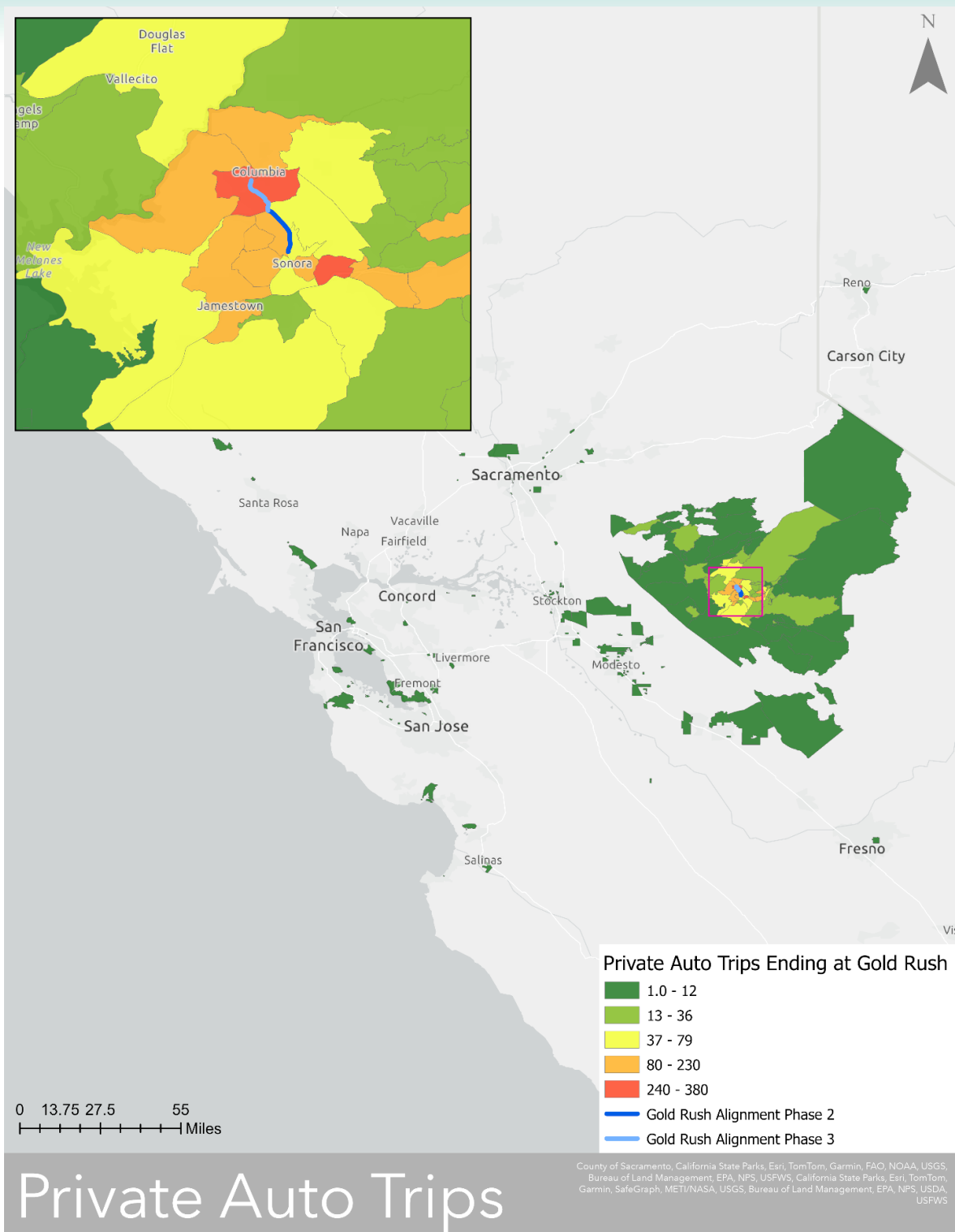


Figure 5. Vehicular Destinations by Census Block Group at Phase 3 Corridor

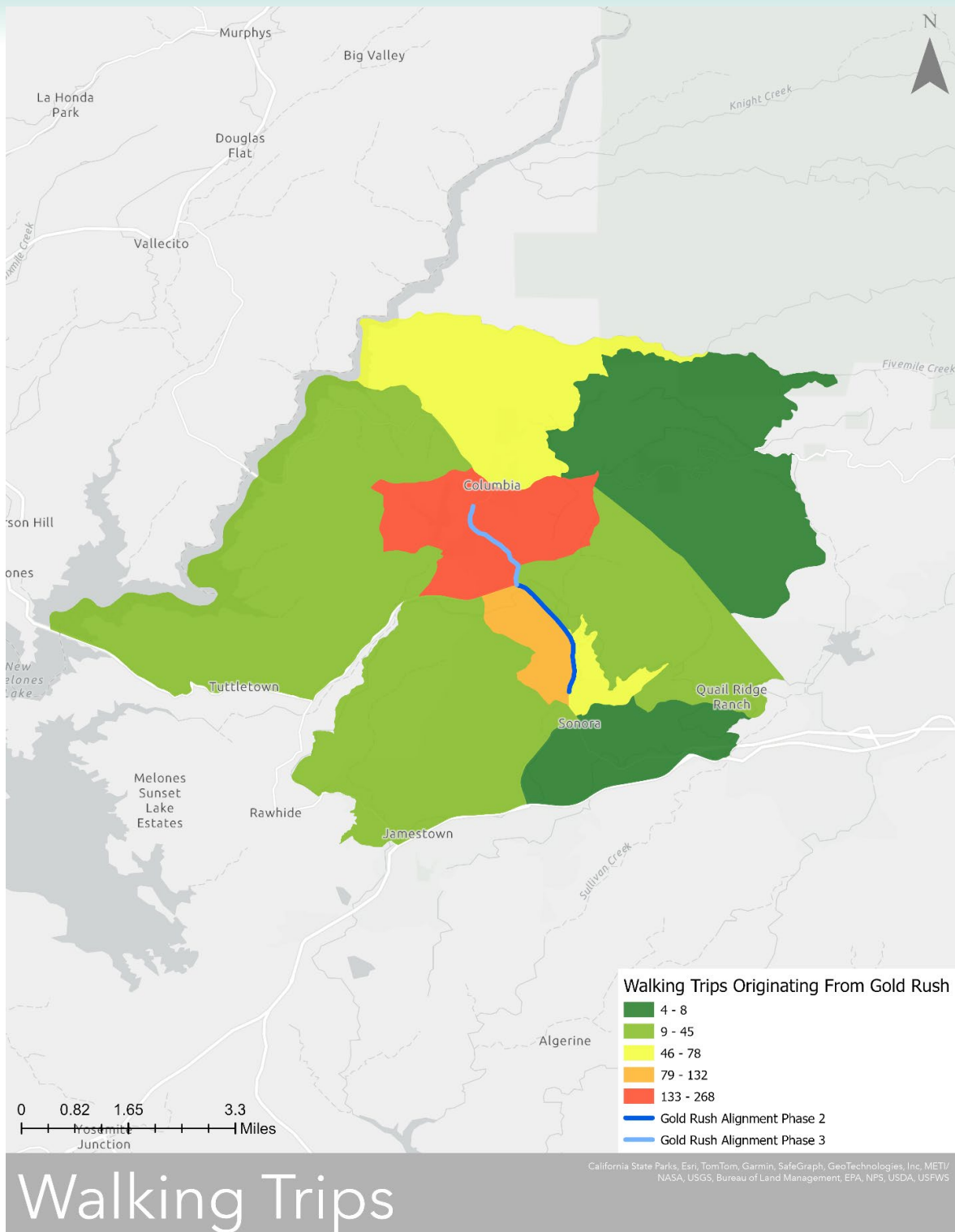


Figure 6. Pedestrian Origins from Phase 3 Corridor

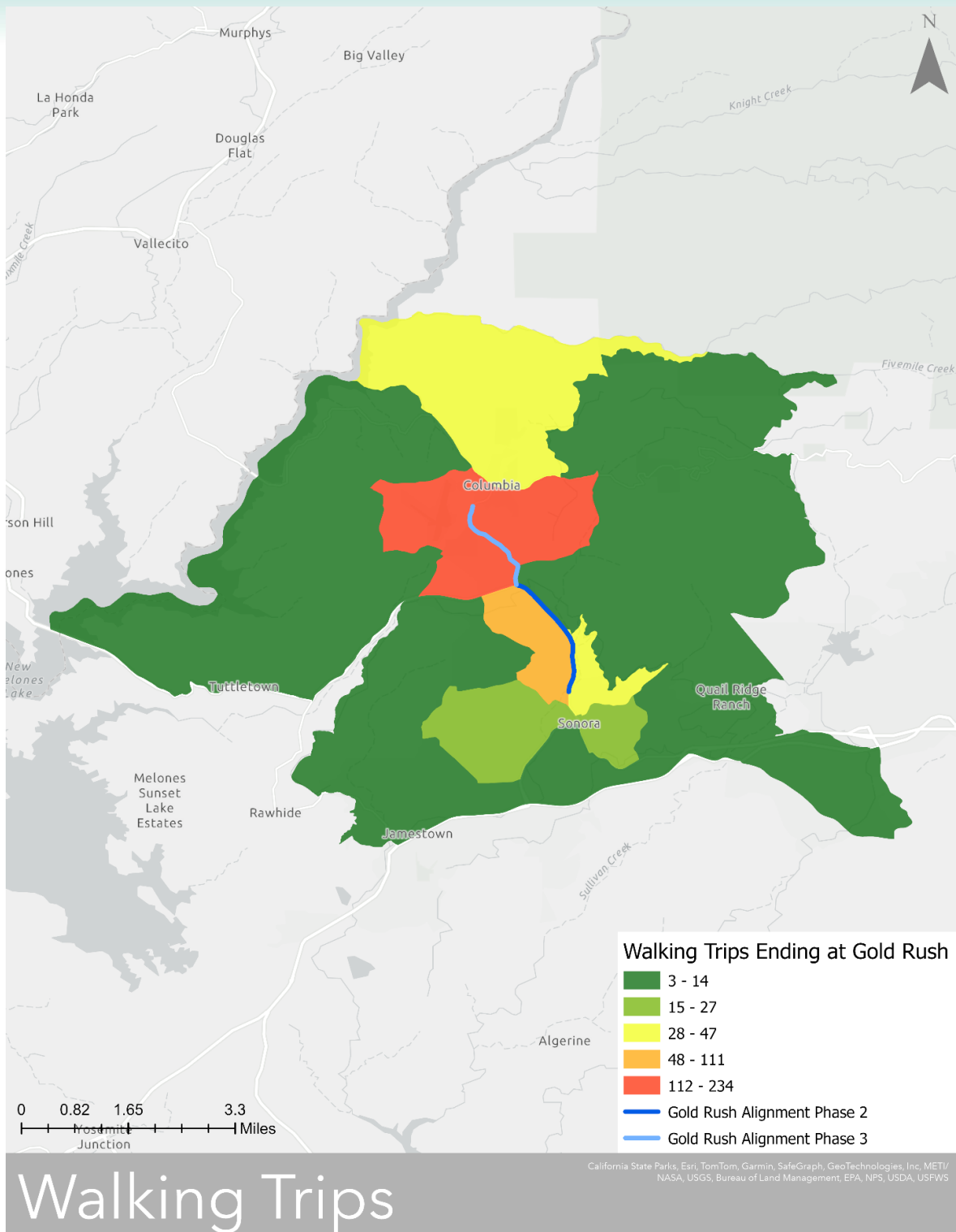


Figure 7. Pedestrian Destinations at Phase 3 Corridor

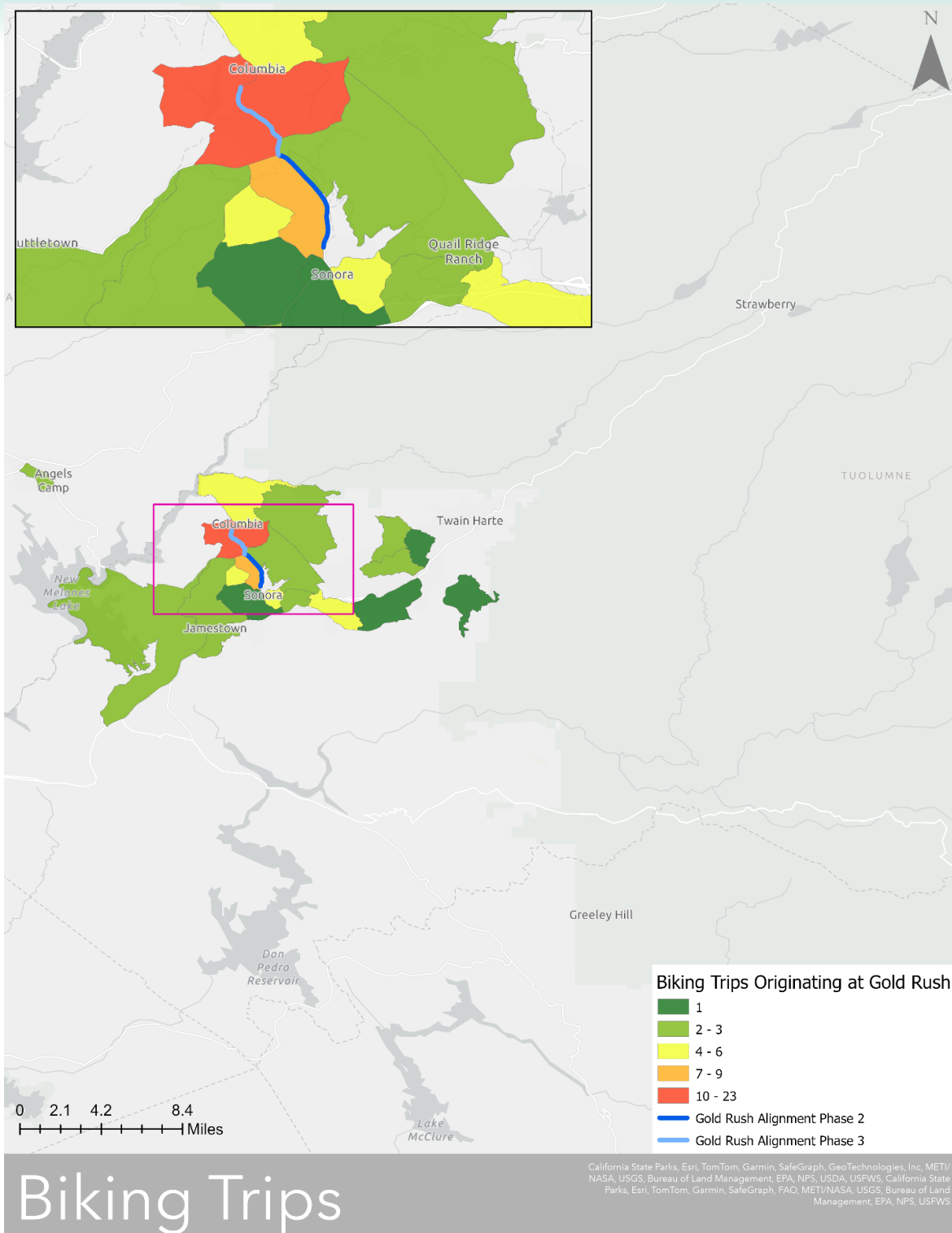
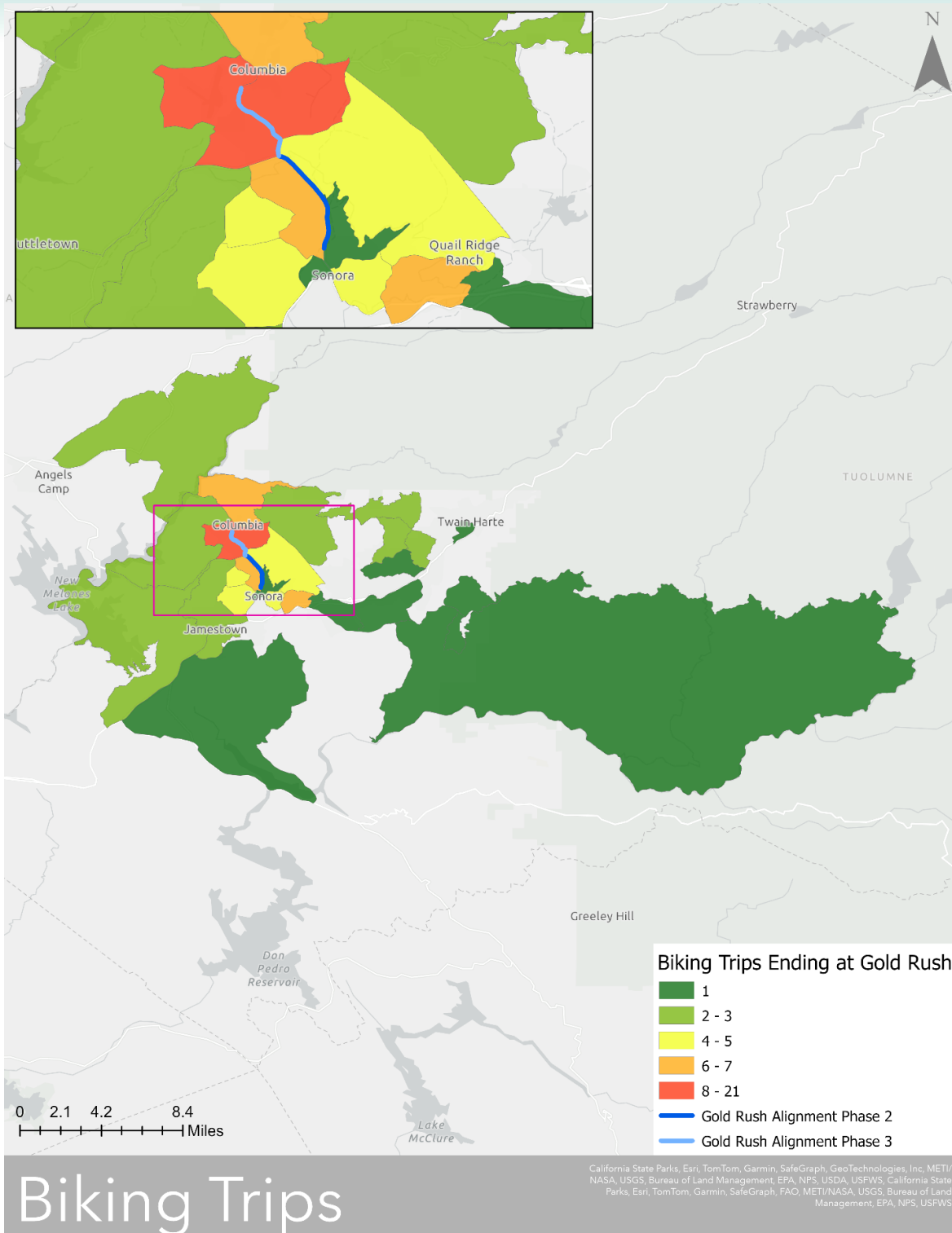


Figure 8. Bicycle Trip Origins by Block Group at Phase 3 Corridor



Biking Trips

Figure 9. Bicycle Trip Destinations by Block Group at Phase 3 Corridor

4.3 Pedestrian

4.3.1 Walkshed and Sidewalks

Approximately 1%¹⁵ of residents walk to work which is higher than the percentage of residents who take public transportation. According to the 2020 ATP, Columbia has limited sidewalks and paths, and most paved paths safe for pedestrians are located within Columbia College and Columbia State Historic Park, and safe access to Columbia Elementary School, at the tail-end of the Phase 3 Corridor, and Columbia College for walking and biking are needed¹⁶. Additionally, the ATP notes that there have been several bicycle and pedestrian collisions within the community center and along SR 49, within a 1.5 mile radius of the SR 49/Parrotts Ferry Road intersection between 2006 and 2018. Figure 6 and Figure 7 shows that there are more pedestrians walking in and around the Phase 3 Corridor within a 2-mile radius of the corridor than further out in the surrounding areas, making this corridor a relatively high-frequency pedestrian trip area with pedestrian-level interest areas. Columbia State Historic Park's central streets are formatted in dense blocks designed to accommodate pedestrians, and the street shave wooden boardwalks with stairway connections. Additionally, Columbia College has a network of sidewalks and crosswalks allowing pedestrians to traverse the campus.¹⁷

4.4 Bicycle Facilities

4.4.1 3-mile Bike Shed Analysis

Figure 10 illustrates the 3-mile bikeshed surrounding the Phase 3 corridor. This map highlights the areas within a three-mile radius that are accessible by bicycle within an expected 10-minute window, demonstrating the connectivity and reach of the corridor for cyclists. The bikeshed encompasses a diverse range of destinations, extending to downtown Sonora in the south, Yankee Hill to the east, just short of Tuttletown to the west, and reaching up to Wolf Gulch in the north.

¹⁵ Replica HQ data, Fall 2021

¹⁶ 2020 Tuolumne County Active Transportation Plan

¹⁷ 2020 Tuolumne County Active Transportation Plan

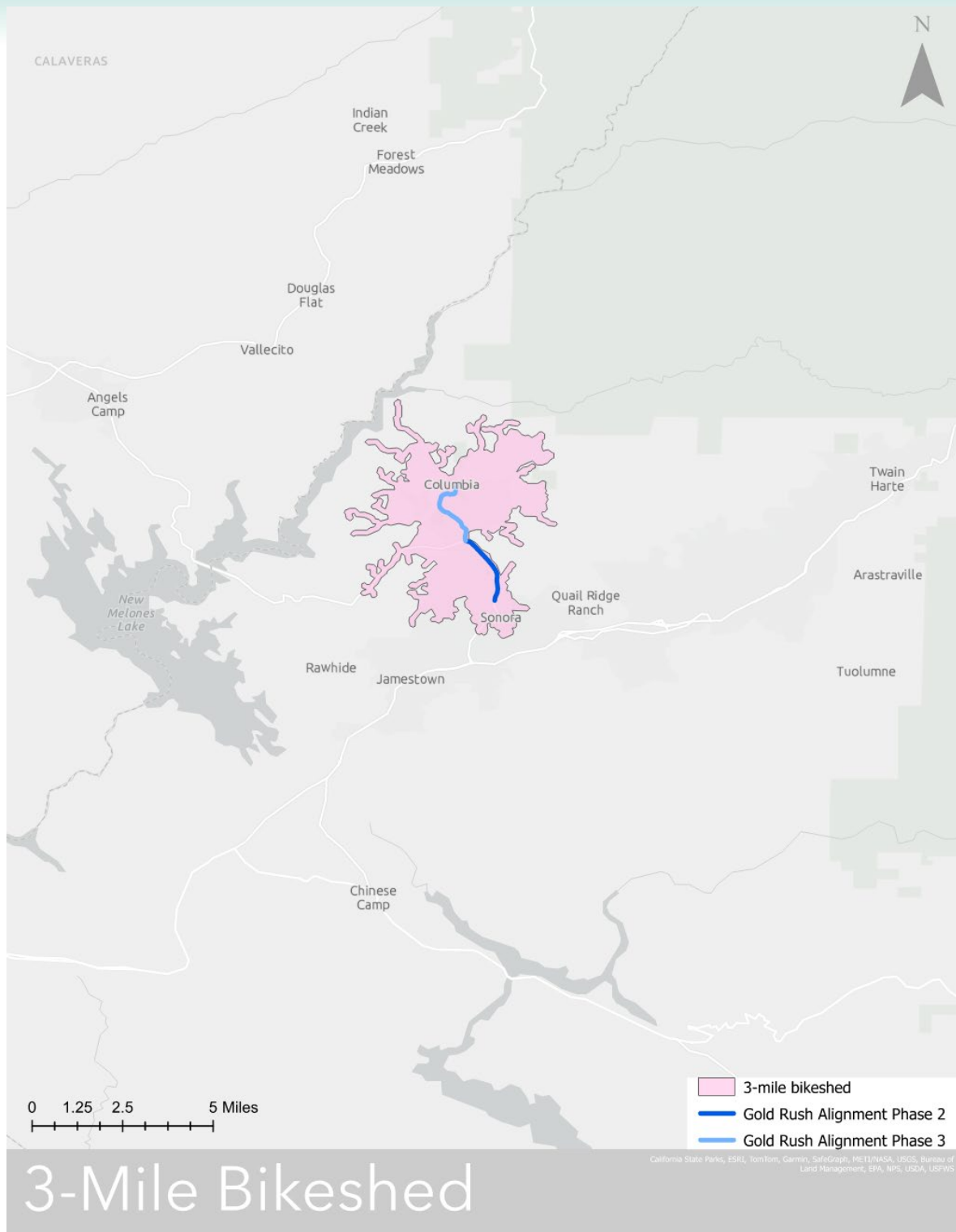


Figure 10. Phase 3 3-mile Bikeshed

4.4.2 Current Bicycle Facilities

Figure 8 and **Figure 9** show that the number of cyclists coming from the Phase 3 Corridor is comparable to the number of cyclists coming to the Phase 3 Corridor, meaning there are both bikers in the area and biking destinations within the area, so the existing desire for cyclist amenities is supported by existing users and destination hubs. Figure 8 and Figure 9 also show that the Phase 3 Corridor has the greatest amount of bicycle trips relative to the Phase 2 corridor and all surrounding areas. Columbia currently has a disconnected network for biking and walking, but as described in section 3.3.1 there are two major hubs with bike and pedestrian networks, Columbia State Historic Park and Columbia College. Though there are a higher rate of bicycle trips made in and around the Phase 3 Corridor, starting at North Downtown Sonora and continuing into Columbia via Parrotts Ferry Road, there are a limited amount of bicycle amenities outside of these two areas¹⁸. Several bike facilities are planned in the City of Sonora and Tuolumne County.¹⁹

4.4.3 Proposed Bicycle Facilities

The following projects have been proposed for multiple users:

- Sonora to Columbia Trail²⁰ - The second segment routed along SR 49 multi-modal infrastructure proposed
- Tuolumne Heritage Trail Shared Use Path²¹ - Multi-modal dedicated, paved path
-

The Phase 2 and 3 corridors have also been identified as a priority active transportation project for the establishment of the Sonora to Columbia Regional Trail. The TCTC recognizes the existing narrow shoulders along this pathway and recommends a TUD easement to widen shoulders that can accommodate added bike lanes. The project would consist of a multi-use trail and Class II bicycle lanes connecting Sonora with Columbia College and would also serve as a regional extension of the Jamestown to Columbia Regional Trail. The Tuolumne Heritage Trail Shared Use Path identifies Phase 2 and 3 corridors have been identified as segments of the shared use path project, along which electric grid support will also be bolstered in order to support electric transit vehicles, personal electric vehicles, and electric bicycles or scooters to reduce emissions from traditional vehicles.

¹⁸ 2020 Tuolumne County Active Transportation Plan

¹⁹ 2020 City of Sonora General Plan; Tuolumne County Recreation Plan; 2025 Regional Transportation Plan

²⁰ 2020 Tuolumne County Active Transportation Plan

²¹ 2025 Tuolumne County Transit Regional Transportation Plan

4.5 Transit

The Tuolumne Heritage Trail is served by multiple transit agencies, including Tuolumne County Transit, Calaveras Connect, and the Yosemite Area Regional Transportation (YARTS), as shown below in **Figure 11**.

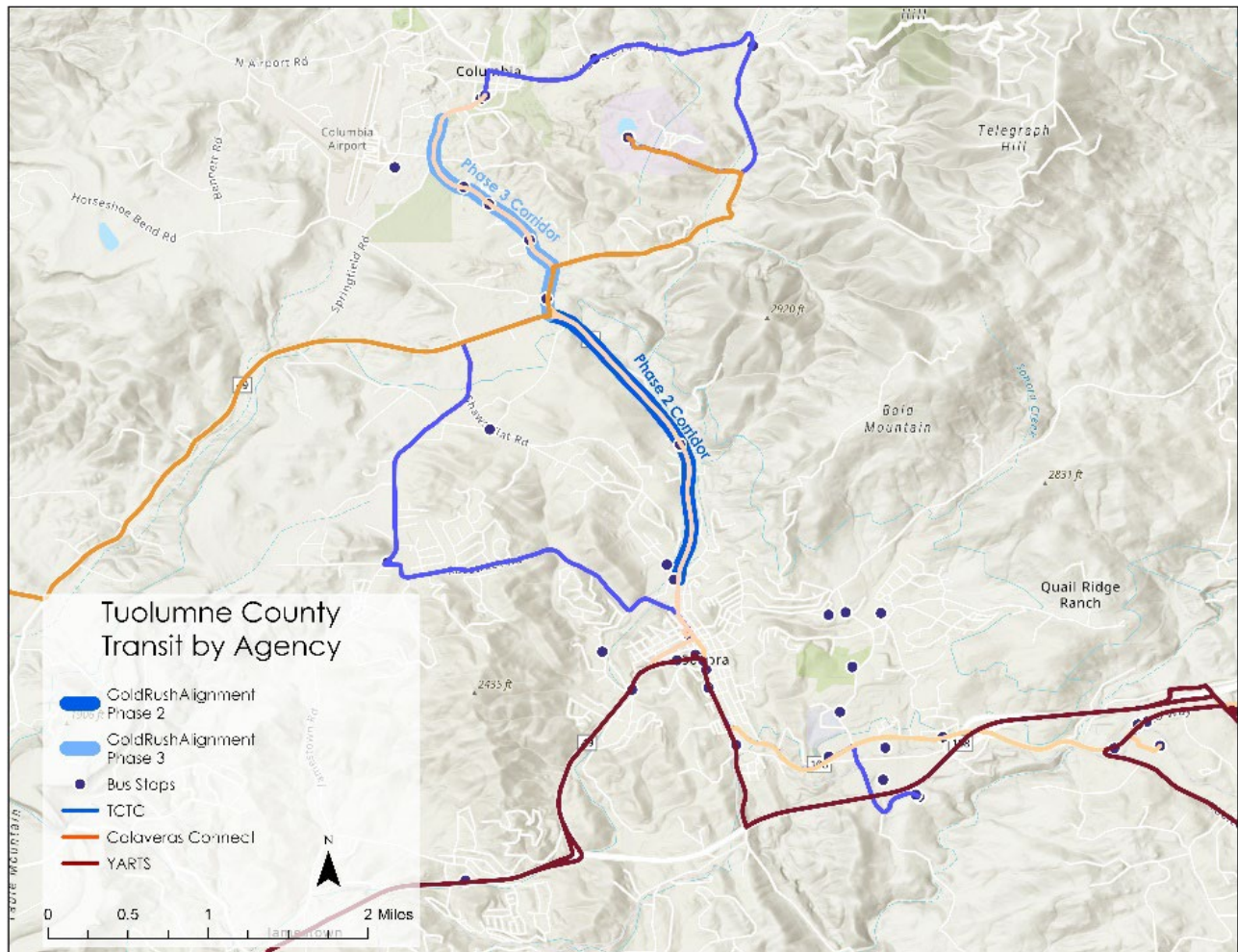


Figure 11. Transit Agencies Serving Tuolumne County

Tuolumne County Transit (TCT) is the primary public transit operator in the area and provides fixed route, flex route, and on-demand services throughout the county passing through the Phase 3 Corridor, particularly the Groveland Columbia Express Route (also called the Groveland Columbia Connect). On-demand stops are at Big Oak Flat, Moccasin, and Chinese Camp, and flag stops can also be made for this daily route which runs twice a

day²². Additionally, TCT operates the Adventure Trolley, which is a seasonal fixed-route service available during winter and summer to accommodate seasonal recreational visitors in the area. Monthly passes and individual trip tickets can be purchased. A map depicting TCT is provided in **Figure 12**.

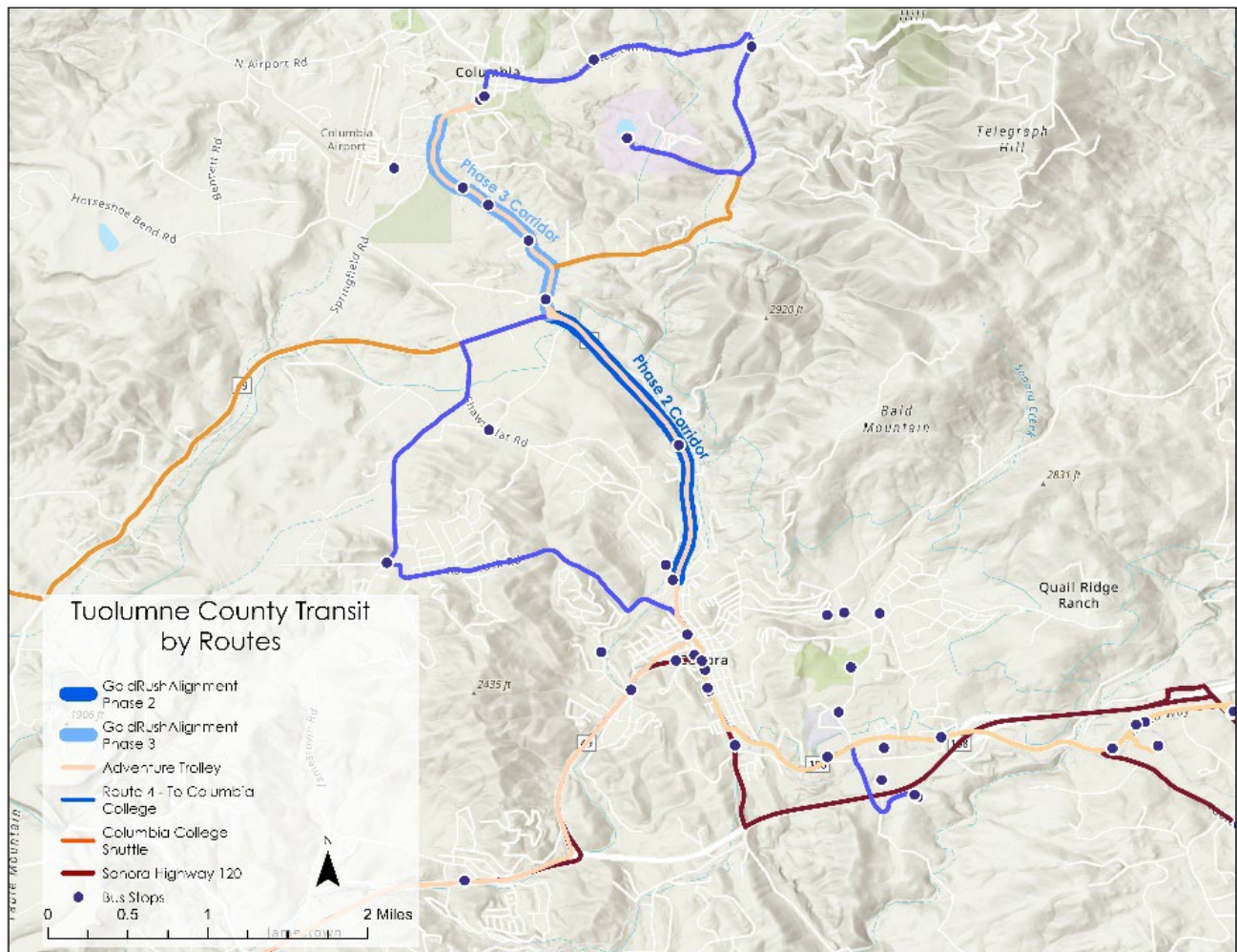


Figure 12. Tuolumne County Transit Routes

The Calaveras Connect provides service connecting across San Andreas, with all three operational fixed-route shuttles connecting at Angels Camp, where Angels Camp serves as a transfer stop for all three Calaveras Connect routes. The shuttle service serves seasonally conforming to the Spring and Fall Columbia College semesters, running daily in

²² [Tuolumne County Transit Route 4: Sonora - Columbia](#)

the morning and evening. The Columbia College Shuttle runs on weekdays from Sonora to Columbia College through the Phase 3 Corridor along Parrotts Ferry Road²³.

Yosemite Area Regional Transportation (YARTS) also runs several routes taking visitors into Yosemite National Park providing service to Merced and Mariposa Counties on Highway 140, Tuolumne County on Highway 120, Mono County on Highway 395/120 E, or the City of Fresno and Madera Count on Highway 41. YARTS operates the Sonora Highway 120 route that runs through downtown Sonora along South Washington street, with an overlapping stop with TCT's Groveland Columbia Express Route at Hotel Lumberjack, and another stop on Stockton Street at the Bank of America, hours of operation are updated seasonally adding a North-South connection to the East-West running Sonora Highway 120 route.

4.6.1 ROW Assessment

Vehicular traffic along the Right of Way (ROW) is measured through annual average daily traffic (AADT). During Spring 2022, the AADT for the southern part of the Phase 3 Corridor segment ranges from 4,800 to 13,300 trips. There are more private auto trips going to (Figure 4) and from (Figure 5) Columbia where the Phase 3 Corridor segment is concentrated than the surrounding areas, relatively.

4.6.2 Level of Service (LOS) Analysis

The 2022 TCTC Regional Transportation Plan has identified the Parrotts Ferry Road & Sawmill Flat Road intersection to have Level-of-Service deficiencies, meaning that the intersection is known to experience high levels of congestion, or which had been forecasted to fail in the near future.

4.6.3 Collisions (past 5-years)

According to the Statewide Integrated Traffic Records System (SWITRS), there were a total of 14 reported crashes along the Phase 3 alignment between January 1st, 2021 and December 31st, 2025 as depicted in **Figure 13** below. Out of these incidents, one involved a pedestrian resulting in a minor injury, highlighting the ongoing safety concerns for non-motorized users in the corridor. These statistics underscore the need for enhanced safety measures and improved infrastructure to better protect both pedestrians and cyclists traveling through the project area.

4.7 Parking

4.7.1 Off-Street

²³ [Columbia College Shuttle - Calaveras Connect](#)

Along the Phase 3 alignment, there are multiple access points via Parrotts Ferry Road and Broadway Street that lead to local businesses within Columbia Village, each offering a variety of off-street parking options. These parking facilities include dedicated lots adjacent to businesses, shared lots serving clusters of shops, and designated areas for visitors. The availability of ample off-street parking supports both short-term and long-term stays, making Columbia Village accessible and convenient for patrons, employees, and tourists.

4.7.2 On-Street

Along the Phase 3 alignment, there are currently no designated on-street parking spaces available. The majority of the corridor features narrow roadways with limited shoulder space, which discourages vehicles from stopping or parking along the route. However, south of Damin Road, several unpaved pull-off areas exist where vehicles can temporarily stage or park. These informal sites provide limited short-term parking options for drivers, but they are not formally marked or maintained, and may be subject to variable surface conditions.

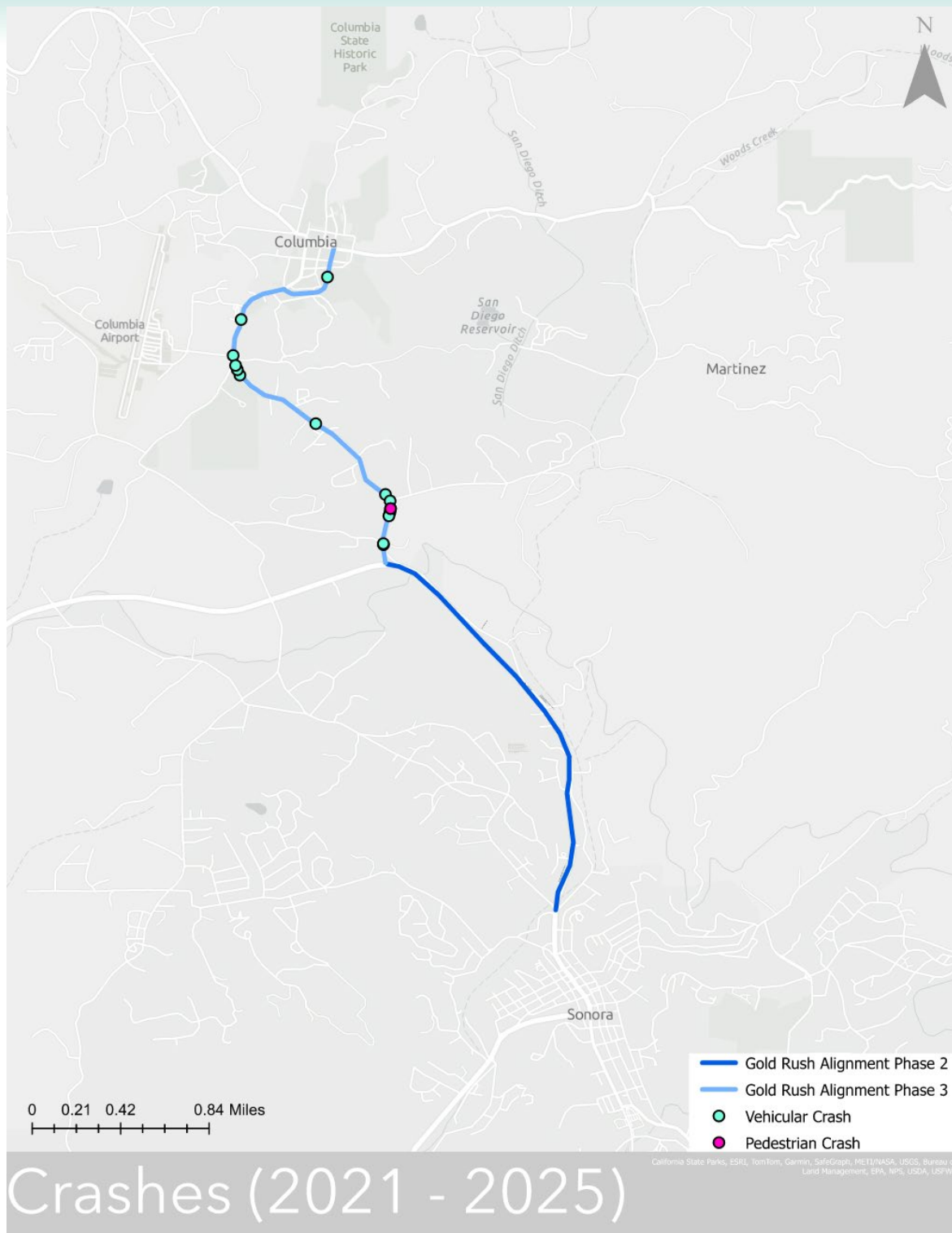


Figure 13. Crashes (2021 – 2025)

5 Land Use

5.1 Current Land Use

The immediate areas surrounding the Phase 3 Corridor are zoned for General Commercial (GC) use, High Density Residential (HDR), Mixed Use (MU), Parks and Recreation (P), and Neighborhood Commercial (NC). On the valence of the corridor, Rural Residential (RR), Low Density Residential (LDR), Estate Residential (ER), Agricultural (AG), and Business Park (BP) zoned areas comprise the greater area.

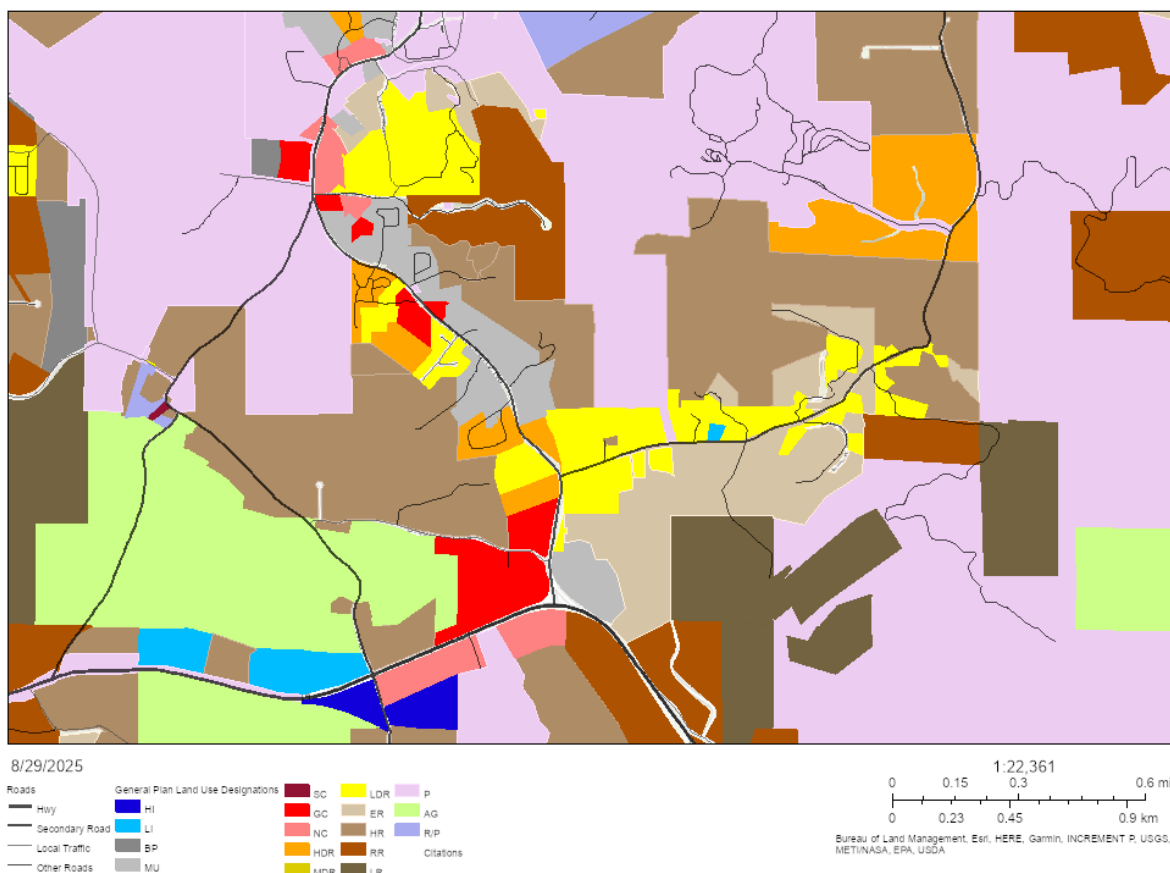


Figure 14. Tuolumne County Zoning & Land Use

5.1.1 Identification of Curb Cuts

There is no continuous sidewalk along the Phase 3 Corridor. There are two short stretches of sidewalk with two curb cuts on each strip at the Columbia Elementary and Columbia School compound with 2 drainage inlets.

5.1.2 Vehicular Access Points

Along the Phase 3 alignment, multiple vehicular access points are present, primarily in the form of local cross-streets. These streets serve as connections for residents living in homes and townhomes, local businesses, and Columbia Elementary School within Columbia Village, enabling convenient entry to the proposed multi-use path. Airport Road further enhances accessibility by offering a direct route to and from the Columbia Airport. In addition to these, visitors of the Columbia State Historic Park will benefit from straightforward access to Phase 3 of the Tuolumne Heritage Trail, promoting connectivity and ease of movement throughout the corridor for both daily users and tourists.

5.1.3 Emergency Vehicle Access

Currently, Phase 3 of the proposed Tuolumne Heritage Trail alignment lacks a dedicated emergency vehicle access road, resulting in limited emergency access. The corridor is characterized by its narrow roadway and minimal pull-over areas, which pose challenges for both passenger vehicles and emergency response units. According to the Tuolumne County Evacuation Needs Assessment and Communication Strategies²⁶ document, introducing a shared-use path would significantly improve emergency response capabilities by allowing emergency vehicles to access the proposed path during urgent situations.

²⁶ [TCTC+Evacuation+Needs+Assessment+and+Communication+Strategies_FINAL_Complete.pdf](#)

5.2 Proposed Future Land Use

5.2.1 Key Businesses Impacted by the Tuolumne Heritage Trail path

Table 3. Businesses Impacted, Phase 2 Corridor		
Address	Address	Business Type
Heritage Self Storage	21660 Brian Ln, Sonora, CA 95370	Self Storage
Dollar General	11400 Union Hill Rd, Sonora, CA 95370	Convenience Store
Columbia RV Park	21770 Parrotts Ferry Rd, Sonora, CA 95370	Mobile Home Park
Day O Espresso	21770 Parrotts Ferry Rd, Sonora, CA 95370	Coffee Shop
Columbia Laundromat	21770 Parrotts Ferry Rd, Sonora, CA 95370	Laundromat
Inner Sanctum Cellars Basecamp & Event Center	22004 Parrotts Ferry Rd, Sonora, CA 95370	Winery
Gold Rush Mobile Home Park	22216 Parrotts Ferry Rd, Sonora, CA 95370	Mobile Home Park
Columbia Mobile Home Park LLC	22217 Parrotts Ferry Rd # 57, Sonora, CA 95370	Mobile Home Park
Waterwheel Saloon & Pizza Parlour	22265 Parrotts Ferry Rd, Sonora, CA 95370	Pizza Parlour and Bar
Mandy's Breakfast House	22267 Parrotts Ferry Rd, Sonora, CA 95370	Breakfast restaurant
R/L Mini Mart/Sonora Market	22277 Parrotts Ferry Rd, Sonora, CA 95370	Convenience Store
Zephyr Whitewater Expeditions	Columbia, CA 95310	Outdoor Company
Squirrel Rock RV Campground	10900 Airport Rd, Columbia, CA 95310	Campground
Union Hill Inn	21645 Parrotts Ferry Rd, Sonora, CA 95370	Wedding venue
Columbia Airport	10723 Airport Rd, Columbia, CA 95310	Airport

5.3 Public Facilities

Public facilities are institutional, academic, governmental and community service uses that are publicly owned or operated by non-profit organizations. There are also quasi-public facilities that are privately owned open spaces that are open to the public for recreation. Public facilities provide critical services to the community, including education,

administration, and public safety. Public facilities within the corridor consist of Columbia Elementary and Columbia Airport.

5.3.1 Safe Routes to Schools

The north end of the Phase 3 segment of the Tuolumne Heritage Trail is adjacent to Columbia Elementary School and therefore has the potential to contribute to the Safe Route to School (SRTS) network serving students accessing Sonora High.

The school is only accessible via Parrotts Ferry Rd, which does not provide any sidewalks or crosswalks that connect to the school – except for sidewalks immediately adjacent to the school property. The nearest pedestrian crosswalk is an uncontrolled crossing located just south of Church St, approximately 560 feet from the school’s driveway. Parrotts Ferry Road is marked as a school zone approximately 500 feet north and south of the school.

The neighborhood streets on the east side of Parrotts Ferry Rd do not provide designated pedestrian amenities such as sidewalks, crosswalks, or street lighting.

6 Built Environment

6.1 Streetscape

The Phase 2 corridor has been segmented to show key features including roadway and shoulder width, contours, key businesses, trees/vegetation, utilities (i.e., drainage, powerlines, gas lines, manholes, catch basins, etc.), intersections, pavement conditions, and signage. Segment 1 streetscape is the southern extent of the corridor and Segment 8 is the northern extent of the corridor. Segment 16a near Columbia Elementary School to Loop Street has the most development comparatively to other segments along the corridor, including four street lights, four post or bollards, three manholes, four catch basins, four utility poles, four utility meters, and a retaining wall to name the top features that stand out.

6.1.1 Pavement Conditions

The pavement within Phase 3 Corridor generally consists of well-maintained roads. The most notable areas with a few pavement cracks are near the entrances of the airport, Columbia Elementary, the gas station, and Columbia Country Estates, to name a few prominent spots. Pavement striping also demonstrates good maintenance with an overall legible pavement striping throughout.

6.1.2 Placemaking Elements

Other placemaking elements include retail signages, street signs, and mailboxes. Trees and ornamental vegetation can also be a placemaking element, and the native vegetation that consistently courts the Phase 3 Corridor pathway contributes to this, including cedar trees, blue oak and foothill pine trees, California buckeyes, and various shrubs to name a few²⁷. Additionally, items like an ancillary windmill and stone well add sculptural intrigue near the Columbia laundromat, large fieldstones and snake rail fencing that line the shoulder of the road along the corridor contribute to a sense of placemaking by adding visual street-level interest which would suit a multi-use pathway.

6.1.3 Typical Cross Sections

The typical cross sections of the corridor have been broken up into segments that best demonstrate the variety and most common condition throughout the corridor. Curb cuts for all segments within the corridor are mapped in figure x.

6.2 Landscape

Prior to European settlement in the early 19th century, the dominant land cover was a mosaic of oak woodland and oak savanna. Ponderosa pines (*Pinus ponderosa*) are also prevalent at elevations of about 1,500 feet to 2,500 feet and commonly found with California black oak (*Quercus kelloggii*) and is typical of the Sierra Nevada foothills. The Central Sierra Me-Wuks arrived between 2,000 and 600 years ago and had a significant influence on the natural landscape and vegetation on the area²⁸. Cultural practices such as prescribed burning resulted in reduced ground covering shrubs and thickets, reduced crown canopy cover, lower tree density, and dominance of fire-resistant tree species like ponderosa pine²⁹. Since European settlement, many of the Ponderosa pine trees have been cut for timber.

To aid the rapidly growing gold and timber industry, multiple roads were built and paved to increase the flow of supplies from the eastern Sierras to western foothills. The natural storage of water via lakes and reservoirs in the Sierra Nevada mountains resulted in the development of dams, water systems, and other utilities that stretched from the mountains to foothill towns to encourage economic growth in the region³⁰. Natural water systems were also re-routed to aid with the second wave of gold mining in the 1880s that required moving water to separate gold ore from the surrounding sediment, also known as “placer

²⁷ Tuolumne County Biological Resources: Wildlife Habitat Descriptions Species Tables Appendix B

²⁸ 2018 Tuolumne County General Plan Updated EIR.

²⁹ https://pubs.usgs.gov/dds/dds-43/VOL_II/VII_C46.PDF.

³⁰ <https://tchistory.org/up-in-the-hills/>.

mining”³¹. This resulted in a change in the vegetative landscape to decreased tree canopy and density and increased species richness. The amount of impervious surfaces has also increased as a result of buildings, roads, and other developments. Currently, the landscape within the corridor consists mostly of gravel, grass, sidewalk pavements, rows of trees, or a few street trees and shrubs in areas with building development.

The project area begins at higher elevations near Parrotts Ferry Rd and runs through the Browns Flat and Shaws Flat area, a relatively flat riverine valley (Woods Creek) that had significant mining activity during the mid-19th century and consisted of mining camps. The project area terminates to the south at lower elevations in downtown Sonora near Sonora High School. Sonorians, a term describing Spanish-speaking miners from Sonora, Mexico, settled in a camp along Woods Creek currently known as Sonora High School during the early 19th century³².

Drainage generally flows westerly downslope from the Sierra Nevada mountains through Sonora to lower elevation lakes and reservoirs. Sonora is generally south facing with tributaries such as Woods Creek, Portuguese Gulch, O’Neil Ditch, and Shaws Flat Ditch draining into Tuolumne River to the south. Prominent hillsides around the project area include Bald Mountain and Squabbletown to the east. **Figure XX** below shows the percent rise or inclination of slope for the project area. Areas with lower percent rise indicates a flatter terrain, where 0 is a flat surface, and higher percent rise indicates more vertical inclines, where 100 is a 45-degree angle.

Geologic surveys show that the project area consists of fine-loamy, alluvium or riverine deposits (Qa) and mixed soils³³ and are classified in the late Paleozoic and early Mesozoic periods. The project area is primarily underlain by metasedimentary bedrock^{34, 35}:

- Marble – white to gray-blue recrystallized limestone and dolomite (M_zP_zcm), and

³¹ <https://tusccountystories.com/2023/01/30/william-watson-gold-mining-and-a-california-tragedy/>.

³² <https://tchistory.org/sonora-crossroads-of-tuolumne-county/>.

³³ USDA. Natural Resources Conservation Science Web Soil Survey. Accessed at <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

³⁴ Spangler, E.R., Holland, P.J., Schweickert, R., and O’Neal, M.D., 2023, Preliminary geologic map of the Columbia 7.5' Quadrangle, Calaveras and Tuolumne counties, California, California Geological Survey, Preliminary Geologic Maps PGM-23-01, 1:24,000. Accessed at <https://ngmdb.usgs.gov/mapview/?center=-120.369,37.987&zoom=13>.

³⁵ Wills, C.J., O’Neal, M.D., Holland, P.J., Parrish, B.M., and Delattre, M.P., 2021, Preliminary geologic map of the east half of the Oakdale 30' x 60' quadrangle, California [superseded by PGM 22-09], California Geological Survey, Preliminary Geologic Maps PGM-21-04, 1:100,000. Accessed at <https://ngmdb.usgs.gov/mapview/?center=-120.369,37.987&zoom=13>.

- Calaveras Complex – mix of strongly foliated argillite, phyllite, quartzite, schist, chert, and extensive marble lenses and blocks (M₂P₂cc).

6.3 *Building Stock*

6.3.1 **Residential**

The residential areas around the Tuolumne Heritage Trail alignment have High Density Residential (HDR), Mixed Use (MU), Rural Residential (RR), Low Density Residential (LDR), and Estate Residential (ER) zoning. A majority of the residential zoning designations fall within the Mixed Use (MU) zoning category, followed by Low Density Residential (LDR) zone. The major residential housing developments along the **Phase 3** Corridor are the Columbia Village Townhome neighborhood located on the West side of Parrotts Ferry Road on Columbia Village Drive. The Columbia Country Estates neighborhood on McKellar Drive is comprised of multi-bedroom residential homes with some of the older units dating back to the 1970s. There residential community developments clustered along Becky River Lane, parallel to Columbia Country Estates, featuring multi-bedroom homes surrounding a cul-de-sac, with modern constructions. The residential community located along Bull Pine Lane connects with Loop Road and Horseshoe Drive where the Gold Rush Mobile Home Park is located. This community features sparsely placed single-family dwellings separated by natural features, with some of the oldest constructions dating back to the 1970s. The Parrotts Ferry Village on Damin Road on the east side of Parrotts Ferry Road, is largely comprised of single family homes of modern construction, reasonably developed at or around the same time.

There are two mobile home parks along the corridor, The Gold Rush Mobile Home Park on the East side of Parrotts Ferry Road, and the Columbia Mobile Home Park on the West side of Parrotts Ferry Road.

6.3.2 **Commercial**

Neighborhood Commercial (NC), General Commercial (GC), and Business Park (BP) uses are the most prevalent type of commercially zoned land surrounding the Phase 3 Corridor, listed from least to most prevalent. Table 4 Businesses Impacted Phase 3 Corridor details businesses present. Many commercial structures have vertical or horizontal vinyl board and batten paneling and asphalt paneled roofs, maintaining a consistent look and feel.

6.4 *Historical, Tribal, and Cultural Significance*

Tribal history goes back to time immemorial when the Me-Wok peoples first settled in the Tuolumne region. Year-round Me-Wuk villages were usually located on ridges near a major

spring or drainage confluence below the heavy snow line (about 3,500-4,00 feet in elevation). Seasonal and temporary camps occurred in higher elevations and floodplains that were convenient for hunting, gathering, and fishing. There was an estimated 35 pre-1848 villages in the County, indicating that the County was a significant residential and resource procurement area for the Central Sierra Me-Wuk³⁶. The Sonora Pass that is now SR 108 was an important trading route with neighboring tribes located in the eastern Sierras. Since the development of the region after 1848, the Central Me-Wuk have consolidated under two federally recognized reservations, as shown in **Figure 15** below.

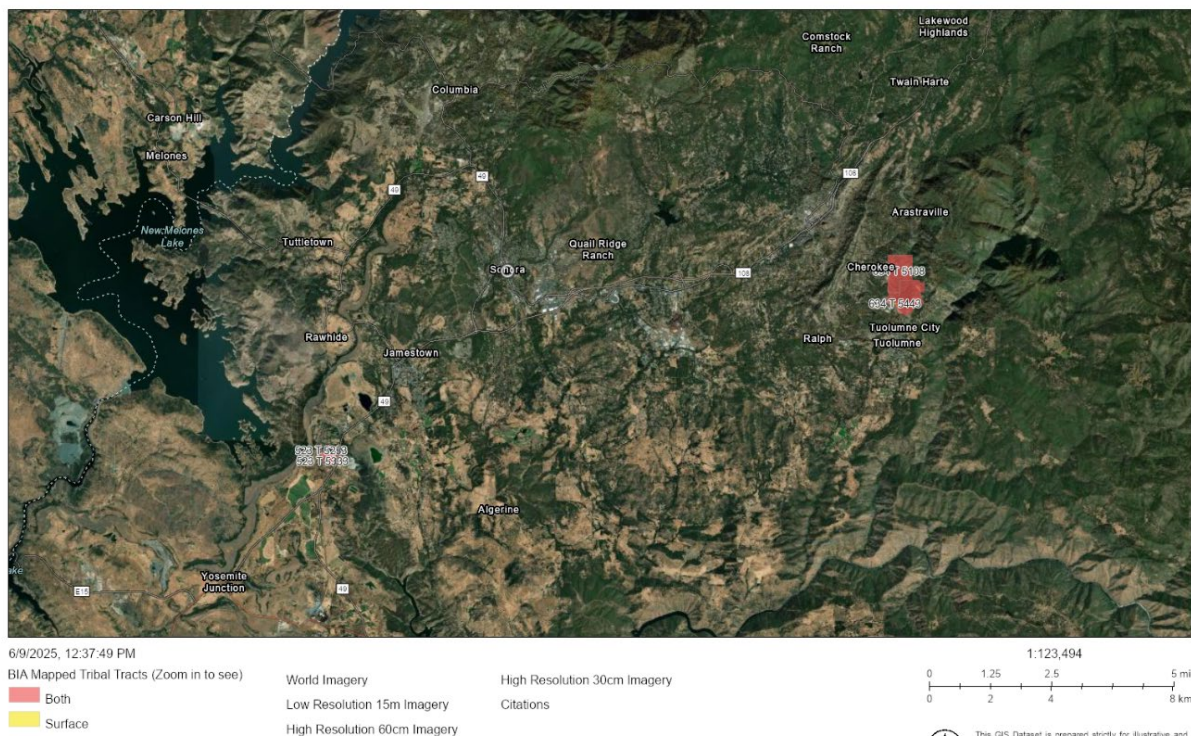


Figure 15. Tribal Reservation Land

The town of Columbia was incorporated as a California State Park in 1945. The area is distinguished by having the largest single collection of existing Gold Rush-era (1850-1860) structures. In the early 1850s, Columbia, “The Gem of the Southern Mines”³⁷, ultimately became established as a community home to several thousand people with more than 500 buildings 150 businesses serving Columbia and nearby mining camps, where gold and

³⁶ 2018 Tuolumne County General Plan Update Draft EIR.

³⁷ 1964 National Survey of Historic Sites and Buildings Columbia Historic District Application

Columbia Marble were the primary products extracted. The town of Columbia is listed on the National Register of Historic Places, particularly distinguished as California Historical Landmark No. 123. The state park includes almost thirty historical buildings built during the period of significance retaining historic integrity, and record of an underground water system for domestic and firefighting use which existed until 1950, of which the evidentiary remains of this process still survive.

6.5 Utilities

Utilities in the project area comprise of transmission lines, light and/or utility poles, manhole covers, street trees, sidewalks and curbs, catch basins, and retaining walls.

Potential Environmental Constraints

There are several environmental constraints along the corridor that must be considered along the Phase 3 segment of the Tuolumne Heritage Trail.

6.6 Constrained Right-of-Way

The right-of-way hugs Parrotts Ferry Rd for the extent of the project segment except for near the intersection with SR 49 to allow for any future intersection widening. Right-of-Way maps for the Phase 3 segment are provided in **Appendix A: Tuolumne Heritage Trail Phase 3 Corridor Survey**.

6.7 Easement and Acquisition Needs

To provide a bicycle facility along the Phase 3 corridor, additional right-of-way must be obtained along one or both sides Parrotts Ferry Road. The parcels adjacent to the corridor are privately owned except for those owned by the County of Tuolumne or California State Parks. It is estimated that construction of the Phase 3 project would require easements or acquisitions of between 25 and 100 parcels, each ranging from 2 to 40 feet in width, depending on the design of the facility and alternative selected for construction.

6.8 Grading Challenges and Required Retaining Wall Structures

In the Phase 3 project corridor, Parrotts Ferry Rd includes both hilly terrain and flatter terrain. Varying lengths of cut and fill sections will be required along the corridor, depending on the type and design of the facility. Additionally, retaining walls would likely be required. The length of cut and height of necessary retaining walls are major considerations affecting cost of construction.

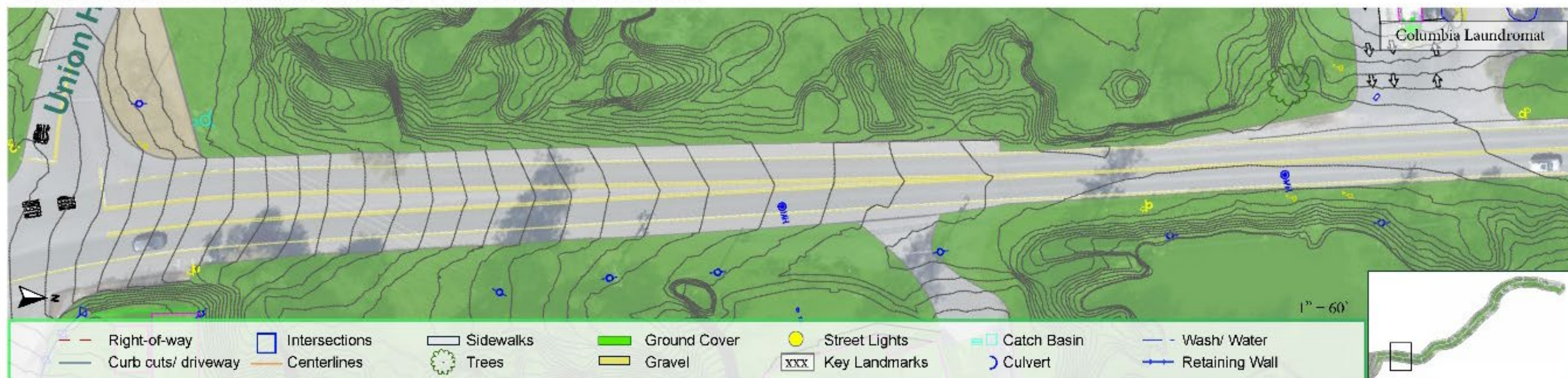


Appendix A: Tuolumne Heritage Trail Phase 3 Corridor Survey

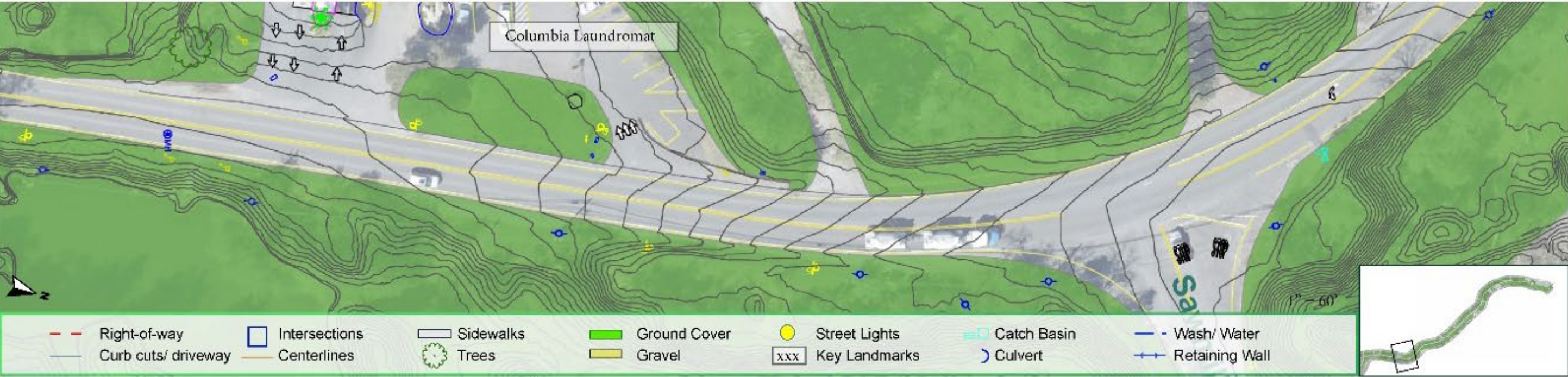
Phase III Segment 9a: Gold Chain Hwy to Union Hill Rd



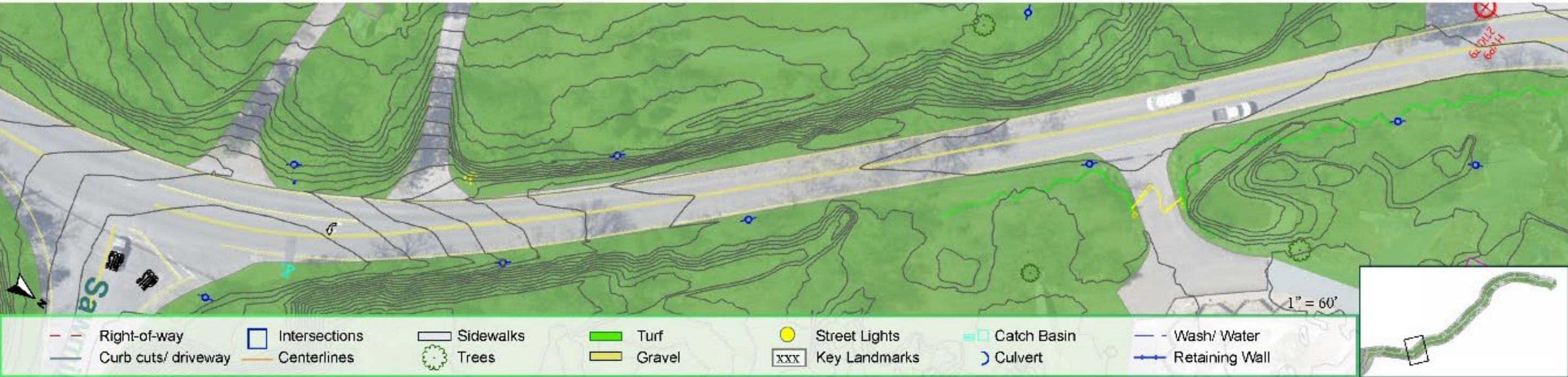
Phase III Segment 9b: Union Hill Rd to Columbia Laundromat



Phase III Segment 10a: Columbia Laundromat to Sawmill Flat Rd



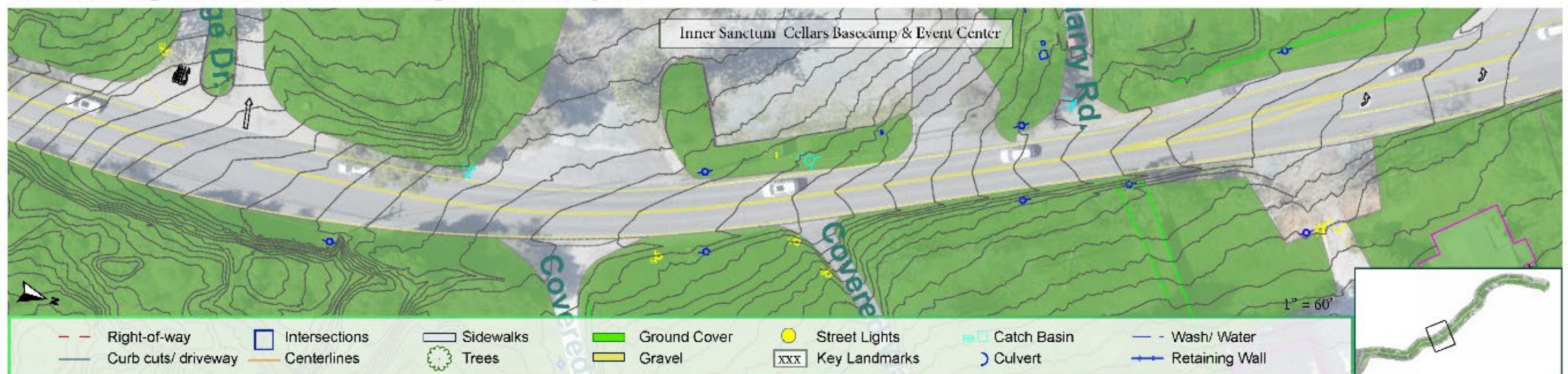
Phase III Segment 10b: Shawmill Flat Rd to Driveway XXXXX



Phase III Segment 11a: Driveway XXXX to Columbia Village Dr



Phase III Segment 11b: Columbia Village Dr to Quarry Rd



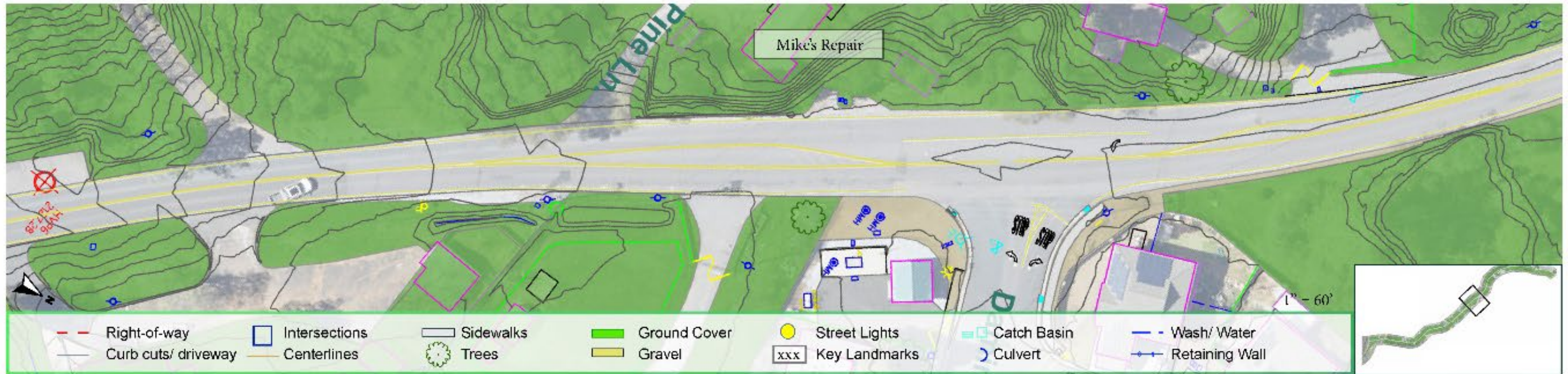
Phase III Segment 12a: Quarry Rd to McKeller Dr



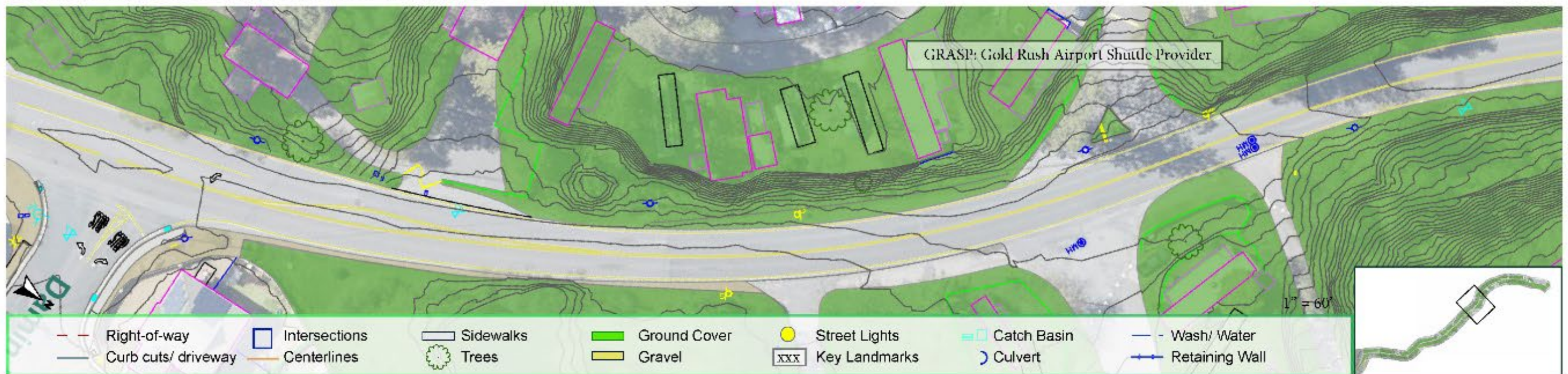
Phase III Segment 12b: McKeller Dr to Driveway XXXX



Phase III Segment 13a: Bull Pine Ln to Damin Rd



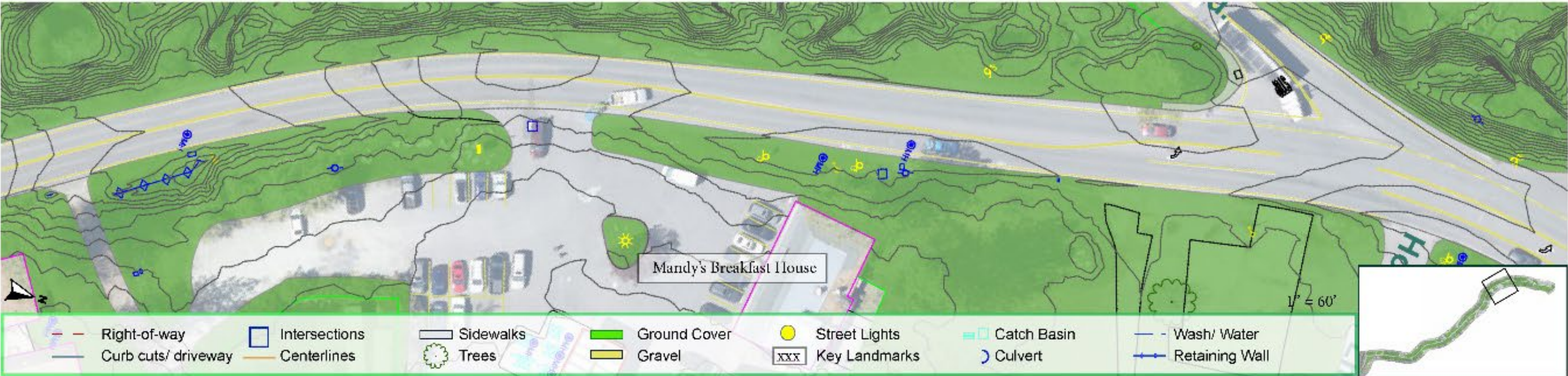
Phase III Segment 13b: Damin Rd to GRASP



Phase III Segment 14a: GRASP to Waterwheel Saloon & Pizza Parlour



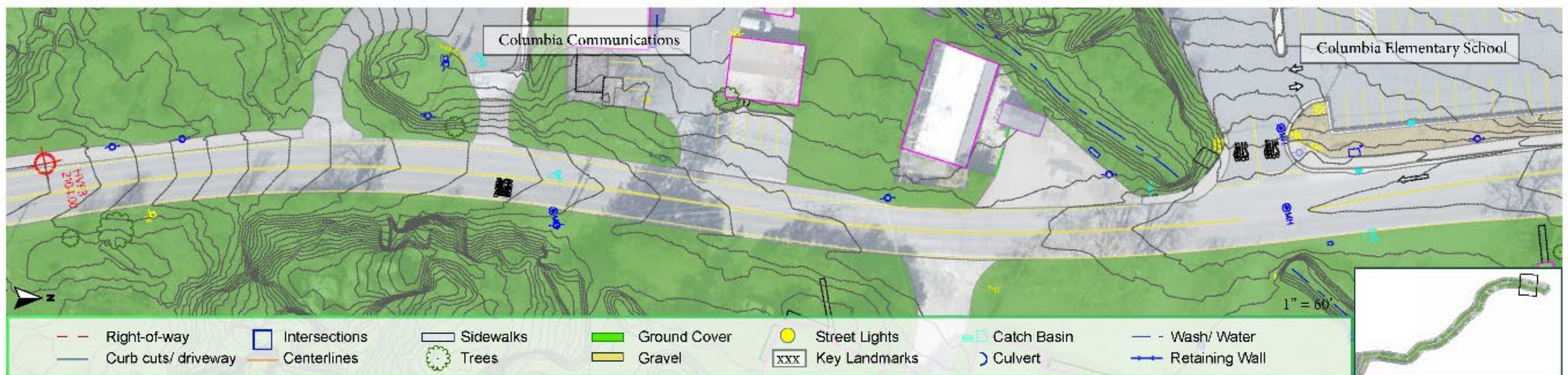
Phase III Segment 14b: Mandy's Breakfast House parking lot to Howser Ln



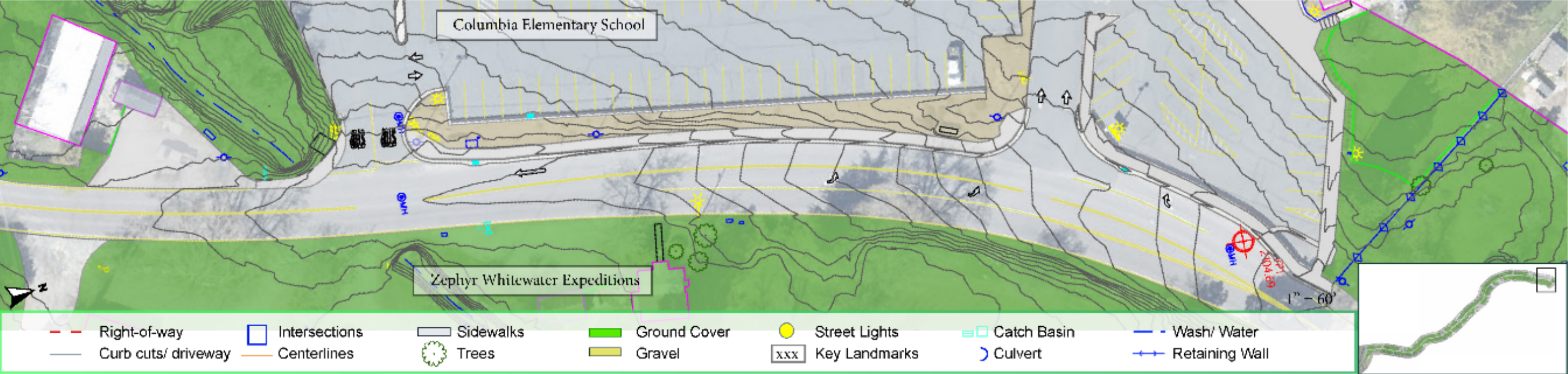
Phase III Segment 15a: Howser Ln to Columbia Communications



Phase III Segment 15b: Columbia Communications to Columbia Elementary School parking lot



Phase III Segment 16a: Columbia Elementary School to Loop St



Additional Legend Items

