

Tierra Bella 2024 Route Marking Report

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Once again we used RouteArrows™ to mark the four Tierra Bella routes. These are eco-friendly stickers (paper and water-based inks) that are placed on the pavement at key intersections of the routes, primarily at turns. This year we had 17 more intersections due to the divergent start for the four routes, though the arrow totals were approximately unchanged.

	101 Miles	74 Miles	50 Miles	30 Miles		Arrow
	Orange	Blue	Green	Yellow	Shortcut	Total
Arrows Needed	238	206	141	117	0	702
Intersections	75	64	47	39	0	88

I divided up the roads and 88 identified intersections (junctions) of the four Tierra Bella routes into three geographical regions (see attached map below). I then calculated a count of arrows needed at each intersection, based on our approach of 3 sets of arrows prior to each turn, and one set immediately after. We also added a few confirming “straight” arrow markings on long stretches or at busy intersections. Each region consisted of between 24 and 30 identified intersections, traversed approximately 30 miles, and consisted of placing between 180 and 230 route arrows.

10 volunteers were recruited, plus myself. The 11 volunteers were broken up into three teams of 3, with the 10th(myself) covering the five intersections near the start at Gilroy High School and end at Christmas Hill Park . Each team has a sweeper/lookout, an arrow placer, and a roller to make sure arrows stick. I created 5 new signs for potentially confusing areas such as the two exits from San Martin Rest Stop where routes diverge and the gravel pathway leading to the entrance to the bike path in Gilroy.

I planned and held a Route Marking training session for the volunteers 10 days prior to Tierra Bella. The session consisted of a presentation covering route marking guidance based on RouteArrows information and past experience, as well as demonstrating the arrow placement process. The goal is to mark the intersections where turns occur clearly and consistently to maximize the rider guidance and minimize confusion. The general guideline is to mark only turns, though as mentioned above, we do put confirming “straight” arrows where there are long stretches without a turn so riders get reassurance that they haven’t missed a turn. We place arrows in the roadway to the left of the white line or bike path, or two to three feet from the road edge where there is no line. The objective is to allow riders in a line to see the arrows while also allowing cars to run over them which later helps them disintegrate and disappear. Rain expected this year caused a slight variation to try to keep the arrows out of the driving area since cars driving over wet arrows would have them disintegrate too quickly during the ride.

Each team was provided with the needed quantity of Route Arrows of each route color (in a convenient dispenser again loaned to me by RouteArrows/Radall Braun), a roller to press the arrows onto the road, safety vests, and a guide containing overhead pictures of each intersection which shows which routes cross that intersection (created by Don Axtel). Each team was also asked to bring a broom for sweeping away any gravel that might interfere with arrow placement or rider safety. I also created a driving route guide customized to their roads and intersections and a corresponding RidewithGPS route to follow. Each team also had a can of spray paint to mark any road hazards encountered.

The three teams and I undertook the route marking duties on Friday April 12, the day before Tierra Bella, starting late morning after rush hour. The weather cooperated and route marking proceeded without incident. It took each team 3.5 to 4 hours on the roads to complete their assigned intersections. All marking was complete by 3 pm. Accounting for travel to and from home to their routes, the effort takes volunteers most of a day to complete.

Selective arrow removal was planned into the schedule this year. Arrows were removed from the private property at Peninsula Building Supply (San Martin rest stop) and Christmas Hill Park, the four markings along the bike path from Hecker Pass to the final rest stop, and the residential areas through San Martin, south Morgan Hill to Gilroy including Burchell Rd. We folded under the tips of arrows along these places which, aided by wet roads, made lifting off the arrows fairly easy. We have a long-handled wire brush to scrape away the paper arrows (doused with water) that can't be lifted.

Below is an outline of the tasks for the Route Marking:

Route Marking Leader Task List
Count up total arrows needed by color
-- order arrows if needed
Divide Routes into Marking Teams (3)
Determine # Volunteers and Recruit
Prepare direction signs if needed
Update Route Sheets (and RideWithGPS)
Package and give arrows/signs to Captains
Prepare marking packets for marking teams
> arrows needed, rollers, broom, vests
> Route Maps with numbered intersections
> Routing (driving) instructions
> Pictures of intersections per team
Schedule and hold team training (~ 1 week prior to marking)
Mark Routes (day prior to TB, weather permitting)
<After ride>>
Remove select Arrows (bike paths, etc)
Collect rollers, brooms, etc from Teams

Fortunately we had enough Route Arrows in hand so we didn't need to purchase additional rolls. We may have to restock for next year's TB. The expenditures were minimal. :

- 7 18"x24" blank signs with stakes (\$24)
- Printing of route guide for dividing among the 3 team (\$30)
- Copies of Route Maps for teams (\$0) - done at home
- Team meeting snacks: (\$0) (no one ate/drank much so I inherited them)

NOTE: Randall Braun (RouteArrows) again kindly agreed to loan me three Arrow Dispensers which make the route marking process considerably easier.

Observations and Feedback

- Removing the confusing multi-pass Leavesley/Dryden intersection made marking that area much easier and presumably eliminated any rider confusion.
- If any resident requests arrows be removed I will remove those in that area.
- More, pending rider survey feedback.

Future Considerations:

- Borrow or purchase three brooms for sweeping gravel from road surfaces prior to placing arrows, as well as for safety near turns, to avoid having to ask volunteers to bring their own..
- Consider placing "confirm straight" arrows at all traffic lights. This would add to the time and effort required and, less so, the number of arrows needed.
- If many resident requests come in about arrow removal, consider creating a separate "Arrow Removal" team, consisting of 2-member team(s). This could be done following the last riders on course or the following day. The challenge will be to predict which areas will need arrow removal. Removing all arrows isn't practical, as it would likely take twice as long, or more, as the placement effort.
- Reflective vests are in bad shape. Order 10 new visible vests.
- Consider adding arrow quantities to intersection photos to ensure consistency.
- NOTE: we barely have enough Route Arrows for 2025 if we use the same colors but may not have sufficient sets to share among three teams. Purchase more.

Remaining Route Arrow Inventory:

Remaining Inventory	Orange	Blue	Green	Yellow	Pink
Arrows Remaining after 2024	332	497	677	1146	498
2024 Needed (reference)	238	206	141	117	0

Route Marking Team Breakdown Map

Team	Junction #s	Junctions	Arrows
1	4-30	28	230
2	36-51, 59-69	30	183
3	31-35, 52-58, 70-79	25	217
4	81, 82, 1-3	5	92

