



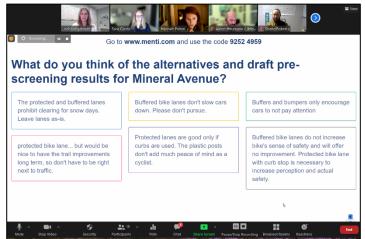
Focus Group Comment Summary

February 23, 2022

A focus group meeting with project area residents was held on February 23, 2022, from 6 – 7 p.m. on a Zoom videoconference. The purpose of the meeting was to review the alternatives development progress and discuss the evaluation. Group feedback was solicited regarding the screening results and prioritization.

Invitations for the focus group were sent via email to community members who noted their interest during the online public engagement survey conducted in December 2021 and January 2022. Approximately 40 people received the invitation and the presentation following the meeting, with 11 members of the public attending the focus group meeting. All were invited to comment.

Interactive polling was used to gather comments throughout the meeting and



comments were accepted via chat and during group discussion. Comments were also accepted via email following the meeting through March 8, 2022, allowing participants more time to view the subject matter and providing an input opportunity for focus group members who missed the meeting. Comments received are listed below, organized by topic area.

What do you think of the alternatives and draft pre-screening results for the Mineral Ave/Jackass Hill Rd/Long Ave intersection?

- Signalization
 - □ I think protected lights would be sufficient, especially with traffic improvements/overpass at Santa Fe.
 - □ Great alternatives. Need to fix the danger to bikes and pedestrians as they cross north on Mineral on the west side with cars coming down Jackass not looking for pedestrians.
 - Helpful, if any signal modification is considered it should be one that removes contention between cars and pedestrians (protected left turns etc.).
 - Turn lanes and signals at Jackass Hill and Mineral are likely all that is really needed.
 Traffic/bike separation is working well just as it is now. Same for pedestrians.
- Slip lanes
 - Can likely remove slip lanes, since would take a lot of room. Keep signal optimization.
 Use center protected lanes on Mineral.





- I think those are the appropriate things to look at.
- Need to separate traffic from peds and bikes.
- The protected infrastructure for bike and ped is ideal. I'm concerned that if the slip lane is done without the protection for bike and ped it would not improve safety.
- As a driver, I wish that the massive painted signal box was moved. It impedes vision for drivers when turning right from Jackass onto Mineral.
- I live in Palisade neighborhood and am very familiar with Mineral/Jackass Hill intersection. Large electrical box on NW corner does make it difficult to see bikers going east on Mineral when I want to turn west on Mineral from Jackass Hill. But bikers sometimes don't approach that spot carefully either. They are hard to see....but they also don't pay attention that drivers can legally have a right turn on red ...and can't see them because of the big box. I don't like the idea of making major changes to that intersection. We have lived here 10 years and the number of bikers I see using the area is minuscule compared to the traffic congestion at this crossing. Plus there is a lower gravel trail they can use right next to Mineral. Everyone needs to be responsible for their own actions and always use caution when navigating in high traffic areas. I don't really think there is enough bike traffic to require extra safeguards/obstaclesif all (bikers and drivers) proceed with caution. Especially the bikers as they r the ones more in danger in any type of collusion. Like I said, I don't really see many bikers in this area, but when I do some r very considerate and obey traffic rules. However, others go speeding around like they have the right of way to do anything they wantthey are the ones causing the majority of the problems, in my opinion.

What do you think of the alternatives and draft pre-screening results for the High Line Canal Trail Crossing of Mineral Avenue?

- Underpass
 - I see no benefits from any of your ideas, save your money for an underpass.
 - ◻ An underpass is really needed at some point in the future. How can that happen if not in this project?
 - **¤** Create a go fund me for an underpass.
 - The best solution for the crossing would be an underpass. If Littleton, the Highline Canal and South Suburban Rec district got together, perhaps they could raise the money to accomplish this best solution.
- Keep current conditions
 - □ Save your dollars--keep it the way it is. Not much gained by either alternative. Could increase trail user wait times to reduce traffic flow impacts, eh?
 - I'd keep as-is. It would be very hard to change High Line users' patterns. I'd focus on improving the traffic signal.
 - ⊭ Keep as is.
- West-side crossing





- Add crossing on west side but keep crossing where it is aligned now on the east but do something to slow the traffic down coming both ways on Mineral as they currently run the yellow and red lights when the pedestrian light changes.
- The two-stage crossing seems like a good interim solution, car users who do not live in the area often do not expect the trail crossing when making a right, despite signage.
- Would hurt the Peninsula Drive drivers trying to make left though, might need to have them go right only if update is made and then provide a U turn for them further east.
- Please do not move the cross walk from its current position to the west side of the trail. If that were to be done, people would not only have to cross Mineral but would have to also cross Peninsula Drive when using the canal. That would add more problems for the people entering Mineral from Peninsula Drive.
- 1. Hybrid, 2. Keep current east crossing. Long term: Underpass.
- The crossing as-is does not meet the expectations of drivers, which provides a safety issue for bike and ped. Other options are a minor improvement.
- Please consider issues for eastbound bike lane on Mineral and merging with cars turning right. The speed differential between these modes is dangerous.
- Do all but raised crossing but the flashing light needs to have two signals one at the crossing and one south down the hill as vehicles speed up the hill and make the turn and don't see the crosswalk.
- I live in the Peninsula and have lived here for 26 years. I was also responsible for getting the bike lane on Mineral. I have also been interested in the Highline Canal Crossing at Mineral. Here is how I feel about the crossing:
 - There is a lot of participation on the highline canal, the park, the parking lot as a trail head and the ingress and egress from the Peninsula neighborhood by automobile.
 - The current pedestrian light does not allow a right turn from Peninsula Drive onto Mineral. So, when the light is activated, the traffic backs up on Mineral and when the light changes the Peninsula traffic needs to wait until all the traffic clears on Mineral before they can enter Mineral. The good news is that if you want to turn left onto Mineral from Peninsula Drive when the light is activated, it is clear to do since all the traffic is stopped on Mineral and the crossing people are on the east side of Peninsula Drive in the cross walk.
 - I would again tell you that a lot of kids, high school track teams, bike riders and hikers use the trail, plus there is a lot of Automobile traffic a bad mix from a safety point of view. The underpass would separate all the pedestrian traffic from the automobiles, would be a great improvement.

What do you think of the alternatives and draft pre-screening results for the High Line Canal Trail Crossing at Jackass Hill Road?

- Raised crossing
 - Raised crossing is a great idea. What about narrowing the driving lanes down that hill? The extra wide lanes encourage high speeds down Jackass hill.





- Raised crossing would be a HUGE win. Would slow cars way down who speed up and down Jackass.
- **¤** Raised crossing might not work if ambulance route.
- □ Maybe raised crosswalk to slow the traffic down. Roundabout not a good idea.
- **¤** Consider a raised sidewalk across.
- Pedestrian activated signal.
- Center refuge
 - □ Center refuge could be more dangerous for ped because they may be waiting in street and be exposed to cars. Big issue when visibility is a concern.
 - □ ⊂ Center refuge might be good to slow traffic.
 - **¤** Center refuge might be harder for snowplows.
 - I walk daily and frequently from Palisade neighborhood, across Jackass Hill toward Highline Canal trail. Lots of cars do not stop for pedestrians so I am very careful before entering street. Thumbs down on an island...puts pedestrians as sitting ducks in middle of street. Perhaps a crossing button to be more effective at getting driver attention. Drivers coming around the hill are usually going fast and don't hardly have time to carefully stop before coming to crosswalk. Pedestrians MUST be very cautious regardless. Just because drivers SHOULD STOP, doesn't mean they will. I think it is still up to me to make sure I am safe and traffic stopped before entering the street.
- Signage
 - □ The unofficial trial crossing at the top of Jackass Hill needs crossing sign, currently really dangerous.
 - □ Cars don't really stop for yellow lights, so extra signage likely won't make much a difference.
 - Limited sight distances on the curves makes the notion of placing more clutter in the roadway, frankly, absurd. And this applies to both the pedestrian crossing atop Jackass Hill as well as at the Jamison intersection curve. Although it was not presented as an option this evening, I hope you'll consider the need for placing better *advance* warning signs for motorists approaching the trail crossing atop Jackass Hill. Particularly for northbound motorists, that X-ing sneaks up them much more quickly than most expect because of very limited sight distances.
- Yes, something has needed at this location for a long time. All good options!
- We walk this crossing often. Pedestrians need to be made more aware of the need to be alert when crossing. Alternative solutions are not needed. Light is disdained by many. Please don't do it.
- Protected bike lanes
 - Need a protected bike lane to protect from the high speed cars using the current bike lanes for passing.
 - Do protected bike lanes on both sides.





- Important alternative not considered yet: move bike lanes below roadway adjacent to existing trail (E of Jackass Hill). West? Riders take sidewalk anyway for safety.
- Mineral Trail
 - Need both paved and unpaved to split walkers and bikes and the paved part can be cleared when it snows for walkers.
- Very important.

What do you think of the alternatives and draft pre-screening results for Mineral Avenue?

- Keep current conditions
 - in The protected and buffered lanes prohibit clearing for snow days. Leave lanes as-is.
 - Agree that we need to maintain on-street bike lanes. How will the lanes be maintained? Narrow up drive lanes to slow vehicles down.
 - □ Buffers and bumpers only encourage cars to not pay attention.
- Buffered bike lanes
 - □ Buffered bike lanes don't slow cars down. Please don't pursue.
 - It's you not me to overcome buffered bike lanes don't slow cars down please don't leave.
- Protected bike lane
 - Protected bike lane...but would be nice to have the trail improvements long term, so don't have to be right next to traffic.
 - Protected lanes are good only if curbs are used. The plastic posts don't add much peace of mind as a cyclist.
 - Buffered bike lanes do not increase bike's sense of safety and will offer no improvement.
 Protected bike lane with curb stop is necessary to increase perception and actual safety.
- Pave the trail so road cyclists can ride up the hill.

What do you think of the alternatives and draft pre-screening results for Jackass Hill Road?

- Buffered bike lane
 - Buffered bike lane is fine, cycle track not convenient for bikers. Maybe widen the sidewalk to reduce the road width including the driving lane.
- Protected bike lanes
 - Protected bike lanes.





- Cycle track

 - Bidirectional is interesting. I'd wonder how bikes going northbound would cross back to their side of the street at the top of the hill.
 - Bidirectional bike lanes seem precarious as they would increase contention between cars making left/right turns onto the side streets--cars do not expect bikes in opposite direction of traffic.
 - Downhill cycling speeds combined with struggling uphill riders makes the narrow cycle track a dangerous idea. Please keep all traffic moving in the same directions.
 - **¤** Like the comment on the different speeds.
 - □ ⊂ Cycle track makes intersections confusing for drivers.
- Protected bike lane or cycle track
 - Image: PBL or cycle track. Concerned about how the entrance/exits would work with cycle track, though.
- What about a bike lane with the sidewalk for going uphill and in the street downhill?
- Merging of bikes and cars at Mineral needs to be addressed. Bikes lose their lane and that is not addressed here.
- Across Jackass from Jameson to Curtis as a way to slow drivers down.
- Raised crossing
 - ^{II} Was a raised walkway crossing not considered at Jackass/Jameson?
 - More on the raised walkway drivers also speed at high speeds up Jackass too. They start at the curve and accelerate through the Jameson/Curtis/Jackass intersection. Raised walkway would slow them down.
- South side of Jackass Hill is usually covered in ice all winter, so north side is better for bikes.
- Good point separating bikes going downhill from peds! Prefers separating bikes and peds everywhere.
- Why add bike lanes of any type? I understand improvements at intersections, but improvements along the corridors don't make sense. It won't stop crashes because there will always be the risk of errant drivers. Spending money for something that isn't needed is not right. Spend the money judiciously on things that will make a difference, not in instances where crashes will happen anyway. Focus on where project treatments can prevent the accidents.

Would you prefer the Mineral Avenue Trail be paved, unpaved, or both?

- Both paved and unpaved: 7
- Paved: 2
- Unpaved: 0
- Please don't pave any trails.





How important is it to separate bicyclists and pedestrians?

- Very important: 4
- Would be nice if possible: 4
- Not important: 0

What do you think of the alternatives and draft pre-screening results for the Jackass Hill Road and Jamison Way/Curtice Court Intersection?

- Curb and gutter
 - □ Forget the traffic circle and center medians...more approachable curb and gutters for cyclists (who stick to sidewalks for safety) and peds would be good.
- Mini roundabout
 - Consider mini roundabout if it doesn't have the unsightly posts around it.
 - ¤ Mini roundabout.
 - I like the proposed solution of a round-about, though I don't know how well it will be received. My in-laws live up in the mountains where they're common so this traffic control method isn't a new concept to us. Up there, pedestrian crossings are difficult though and they have flags for pedestrians to pick up to wave at cars so they notice them.
- Median refuge
 - **¤** Would the center median prohibit side street left turns?
 - □ There isn't great visibility when turning onto Jackass from either way. Median would be better than circle as I think drivers on Jackass will ignore the mini circle.

 - One thing that has puzzled many of us for a long time, feedback on which was sparked by one of your team member's suggestion of extending curbs into the Jamison roadway as it crosses Jackass Hill. I made the comment about keeping clutter out of the roadway this evening, which applies elsewhere as well. The philosophy of putting large pillows of concrete into the roadway strikes many of us as very unwise, if not altogether foolish. It's not only a traffic hazard, but it causes all kinds of vehicular damage. Note, for example, the bashed in concrete structures that have been placed into the roadway on Caley just east of Prince. Other municipalities have adopted much more well-designed traffic calming structures. For example, please take a look at that section of 26th Street just east of Youngfield Street in Lakewood. It works, it's not unsafe, and they don't make motorists wish that someone would take a bulldozer to push them off the street.
 - A median was proposed. With that potential solution, you'll be angering residents who both use Jamison and Curtis. Informally speaking with neighbors, everyone focuses on the horrible safety issues with Mineral/Jamison and not Jackass/Jamison/Curtis. If a median were to go up, we'd all ask ourselves, "was that much really necessary?" It





would add a minute or two to everyone's drive and honestly, we'd probably speed even more as we now race up the hill to get to our new turn off points.

- If I try to identify the root cause of safety for the intersection, I think it is cars speeding up Jackass. After I make a turn from Mineral onto Jackass, I rarely go above 25 or 30 mph because I know I'm making a right turn so soon. If there's a car behind me, 8/10 times they're right on my bumper because they want to accelerate around that corner to speed up the hill. Again, I think that's the safety issue -- acceleration up the hill above the listed speed limit. In my mind, a median doesn't slow those cars down. It potentially enables them to go faster because they don't have to look for cross-traffic.
- Need more examples to understand the options here.
- Anything that slows traffic.
- Trail beneath Mineral to get bikes off the roadway.
- I live on Jameson and only turn left onto Jackass. I don't really head to downtown Littleton via Prince.
- If you do really want to put a lot of the investment of the \$2M on improving safety at Jackass/Jamison/Curtis intersection over the other areas identified, read on...
 - I'm unsure the exact safety issues that you identified with the Jackass/Jamison/Curtis intersection. I live along West Jamison Way and work from home, so I'm using that intersection several times a day. My guess is that the safety issue identified relates to the low visibility for cars turning left from Jamison onto Mineral, but I could be wrong. If you're willing to share, I'd love to hear the feedback of the identified safety issues for this intersection.
 - - » As I mentioned on the call, a raised sidewalk like what is proposed at the top of the hill would slow down some drivers, potentially enough to give those who feel rushed making that left turn some time to make the turn fully, but I don't know how that would work with plows given that it's a major arterial.
 - » Another idea I thought about after the meeting was to make the intersection a 4-way stop. You'd probably get a lot of rolling stops like is the case further north on Prince, but it would force drivers to take a beat before they proceed up the hill. It would be welcomed by the neighbors, but through traffic would dislike it. It might create a backup during rush hour as well.
 - I know there isn't a great solution to this all. I appreciate you and the team putting their thoughts behind this. Improving safety is the key and with limited funds, you can only do so much. I'm more than happy to speak and spend additional time discussing this with whomever.

Which locations need improvements the most?

- Mineral Avenue & Jackass Hill Road/Long Avenue Intersection: 4
- Mineral Avenue Trail: 2
- High Line Canal Trail Crossing of Mineral Avenue: 1





- Everywhere: 1
- Focus on the Mineral trail and Mineral Ave and Jackass hill crossing if budget is tight.
- Given the limited funds, if it were me, I'd start with the Mineral/Jackass intersection and then use lane markings pretty much everywhere else to maximize value before applying to get additional grant dollars.

What are your thoughts about buffered versus protected bike lanes?

• I use Mineral's bike lane to go to the LRT and to King Soopers. The speed differential is so large, buffered bike lanes don't do anything for safety. A physical barrier to separate bikes and cars is needed. This area is a great place to encourage bike commuting.

How did you like the meeting format?

- This was very well done and quick and to the point.
- Great format!
- Format was good. I appreciated the menti platform and forcing answers instead of leaving it open ended for interpretation.
- Format was excellent!
- Was convenient to attend and did keep everything focused and probably a lot faster than just open discussions.
- Sorry for my use of chat, but I personally like this format.
- Appreciate that this format doesn't encourage groupthink as much as open discussion focus groups. Great way to elevate voices that might not otherwise speak up.
- Great size and format. Send out Menti link early so folks can have multiple screens ready.
- Also, I'm impressed with the presenter's ability to keep a straight face saying "jackass" so many times in a professional setting.
- Thanks all for the great work here!
- This has been great. Thank you for listening to us!
- Thanks for reaching out to us.
- Thank you for hosting.

Questions & Answers

- Q: Is it possible to consider Mineral to downtown as a single corridor? I believe that bike trails should connect 'destinations' like downtown to Mineral lite rail.
 - A: The City conducted a TMP in 2019 with a lot of public engagement. It landed on a focus to make travel by alternative modes rather than motorized vehicles safer and





more convenient. This project can help encourage people to use the light rail and get to the station without using their car, since the parking lots are very crowded. This project helps with that "first and last mile" of trips when using transit. This project will provide ways to get from the neighborhoods to the Mary Carter Greenway Trail and businesses to the east. The city is trying to address the many concerns heard from residents over the years. Mineral is a high-speed roadway and we want to focus on making bicyclists and pedestrians feel safe and feel like a priority in the area.

• Q: Is there a possibility of getting county & state & South Suburban Parks & Rec to help with an underpass for highline under Mineral?

A: Options we presented were considering the \$2M budget for the project and are an attempt to spread improvements around in the area. There are some ideas that will be more costly, and this project will document all of those ideas so the city can look for additional funding (for example, an underpass of Mineral at the High Line Canal Trail is a long-term solution). We will look for other grant opportunities, or other agencies to team up with such as the High Line Canal Conservancy, Arapahoe County, South Suburban Parks and Recreation District.

During the meeting we heard some comments that the High Line Canal Trail crossing is good enough, leave it as-is for now and pursue the undercrossing. The city gets comments on a weekly basis about this crossing needing to be made safer. So, this project will try to make some lower-cost improvements there that can make it safer until an undercrossing can be installed.

- Q: The High Line Canal Trail extension is on private property. Is it possible to get an interagency task to secure a right of way?
 - × A: The city will look for other agencies to team up with to complete improvements in the area that may not be done with this project.
- Q: Could you explain the Jamison Way options more?
 - A: A physical barrier center median could be installed along a bit of Jackass Hill Road at the Jamison/Curtice intersection. That would prohibit left turns to increase safety. The tradeoff is impacts to homeowners that may need to turn out of direction. The only reason we can consider this is that there are alternative ways out of the neighborhood, although they may be a bit longer routes. If this were to move forward, we may need a focus group or survey of the impacted residents there to see what they prefer and determine if it would be too great of an impact to them. The priority here is toward safety. Barriers have a tendency to slow drivers. A reason that this might not be implemented is that there surprisingly haven't been crashes here due to sight distance. This was considered in the hopes of a dual impact of safety and traffic calming.

Another option that will not move forward is to narrow crossing distances of Jamison and Curtice with bulb-outs on the corners of the intersection. This may not provide the same value at this intersection as other improvements.

- Q: How many accidents occur at the High Line Canal crossing of Mineral? I ride my bike through here regularly and I find it fairly safe the way it is. I don't understand how the west crossing option could improve the situation.
 - Image: A: Due to the angle of the existing crossing, there is a long distance for people to cross
which requires a longer hold up of traffic on Mineral (to allow even the slowest person





to cross safely). Since all types of users use this trail, there are times where cyclists or runners don't need all that time. The Peninsula neighborhood traffic is restricted each time the crossing button is pushed. There is the possibility for the west crossing to allow traffic from Peninsula to make a two-phase left turn. The option to push the crossing to the west side of the intersection makes the crossing shorter, so the amount of time traffic is stopped can be reduced. This also allows people to use the center median, which lets them only be exposed to one direction of traffic at a time. This isn't a place that has a lot of documented crashes, but the city typically hears of "near misses". If the crossing were to go to the west side, it would be done in a way to allow fluid movements for bicyclists. The city is trying to encourage all types of riders, fearless, families, etc. Ultimately all the improvements need to work together.

- C: Another issue to consider is the right turn lanes and bike lane integration.
 - A: Windemere between Littleton Blvd to Belleview Area has had recent improvements where bike lanes and right turn lanes meet. Striping there shows that bike lanes continue through the right turn lanes and that location also has signage for cars to yield to bikes and green paint through the intersection to warn cars bikes can be in the area. This type of solution could be used in this project.
 - **C**: I don't have faith in the sign, but I think the striping will help increase safety.
- Q: Is snow removal considered in the cost?
 - A: For protected bike lanes, it is a possibility that we create buffered bike lanes now, but later install protected bike lanes. Another issue brought up earlier is that snow removal is a consideration for protected bike lanes. This is a chicken and egg issue, since the city doesn't currently have specialized plows for bike lanes, but needs lanes before purchasing that equipment is justified. Snow removal is factored into the costs estimated for the improvements we are considering.
- C: Bike lanes we have now aren't getting plowed, even without protected bike lanes. Big sections of Jackass Hill and Mineral frequently ice up if they aren't cleared in the first few days.
 - A: The city doesn't have enough of a workforce to get back to it quick enough to prevent the ice build-up. This is a national crisis – there are not enough licensed truck drivers to drive plows.

Next Steps

Following the focus group meeting and comment period, the project team will incorporate suggestions from the focus group into a more detailed alternatives evaluation and use it to package improvements into a draft preferred alternative. A public meeting will be held in Spring 2022 to gather feedback regarding the draft recommendations.





Appendix A

Focus Group Presentation and Interactive Polling Responses



Mineral Mobility Improvements Project Focus Group Meeting February 23, 2022





Welcome!

Agenda

- Project introduction
- Alternatives development
- Alternatives pre-screening
 - Mentimeter polling and input
- Next steps
- Group discussion/Q&A

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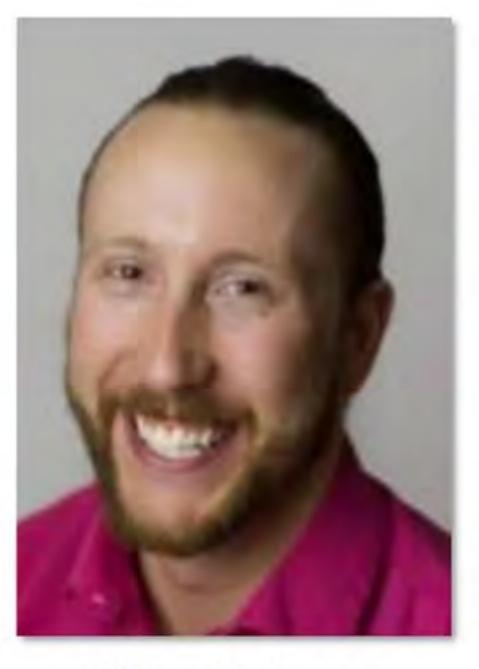
- progress and discuss evaluation
- members to inform next steps:

 - details
 - **¤** Prioritization of improvements



Project Team Presenters





Aaron Heumann City of Littleton Transportation **Engineering Manager**

Shane Roberts City of Littleton Transportation Planner

Sara Ciasto David Evans and Associates, Inc. **Project Manager**





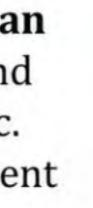
Hannah Polow David Evans and Associates, Inc. Planner



Leah Langerman David Evans and Associates, Inc. Public Engagement



Mineral Mobility Improvements



Project Introduction





Project Area & Locations of Focus

To Aspen Grove **Shopping Center** **Jackass Hill Road** Better protect/prioritize bicyclists and pedestrians while controlling speed

Jackass Hill Park

Jamison Way

Jackass Hill Road

Palisade Neighborhood

To Mary Carter **River Platte Trail**

Mineral Avenue & Jackass Hill Road/ Long Avenue Intersection

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Reconstruct the intersection to improve safety and better facilitate travel on bike or foot while also accommodating vehicles

Mineral Avenue Roadway Separate bike lanes from vehicular traffic and improve bus stops with new designated waiting areas and connections to adjacent sidewalks and trails

South Park Neighborhood

Legend

RTD Light Rail Station Pedestrian Bridge

Not to scale

To Heritage High School

High Line Canal Trail Extension Crossing of Jackass Hill Road

Improve the crossing to increase safety for bicyclists and pedestrians interaction with vehicles

Jackass Hill Road & Jamison Way/ **Curtice Court Intersection** Direct bicyclist and pedestrian crossings to improved points to the north

Long Avenue

Mineral Avenue

Mineral Avenue Trail

Mineral Avenue Trail Improve the trail and provide a better connection to the **Mineral Light Rail Station**

Southbridge Park

High Line Canal Trail Crossing of Mineral Avenue Design a safer crossing

Writers Vista Park

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Retail and Commercial Center

Street

The Knolls Neighborhood

Project Purpose & Funding

Purpose

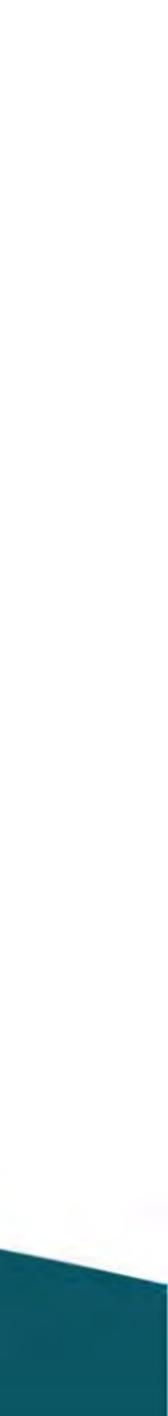
 Create safer and more complete travel options for bicyclists and pedestrians



Funding

- Safer Main Streets Grant
 - CDOT grant of \$2M to City
 - To encourage and safely accommodate active travel within this area of the one-mile travel shed of Mineral Light Rail Station
 - Allows funding for improvements related to grant purpose
 - » Other improvements may be identified and gain momentum





Alternatives Development



Alternatives Development Process

Develop initial high-level improvement alternatives



Used community input from Dec 2021/Jan 2022 online engagement. High-level criteria used to identify feasible alternatives to move forward for this project.

We are

here

Confirm alternatives to move forward

Alternatives that passed the pre-screening will move forward into more formal screening process. Conduct detailed screening

Evaluate benefit of alternatives using criteria for intersections and segments. Identify selected package of improvements

- Pull individual favorable elements throughout the project area together to form a set of packaged improvements to be constructed within the project budget.
- May not include improvements for every location.

Prepare design plans

Incorporate design details.





Alternatives Pre-screening

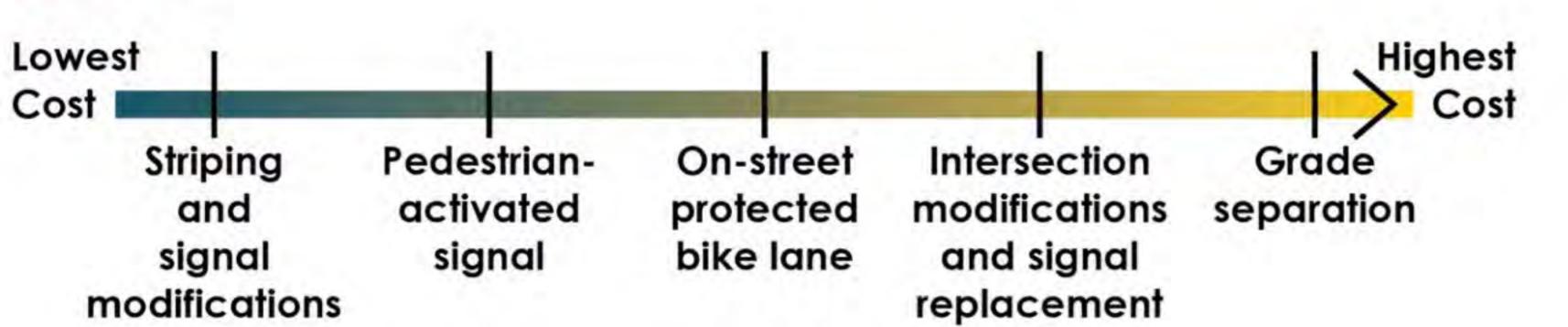




Pre-screening Criteria

Project Parameters

Reasonable cost



- Reasonable timeframe for construction
- Works within existing right-of-way
- Meets project goals
- Consistent with Littleton's Transportation Master Plan goals



Focus Area

Mineral Avenue and Jackass Hill Road/Long Avenue Intersection



Mineral Mobility Improvements

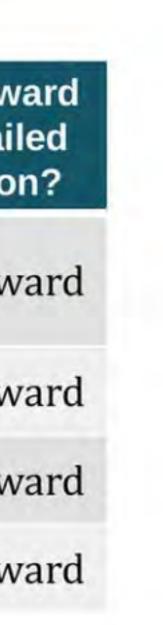


Draft Pre-screening Results

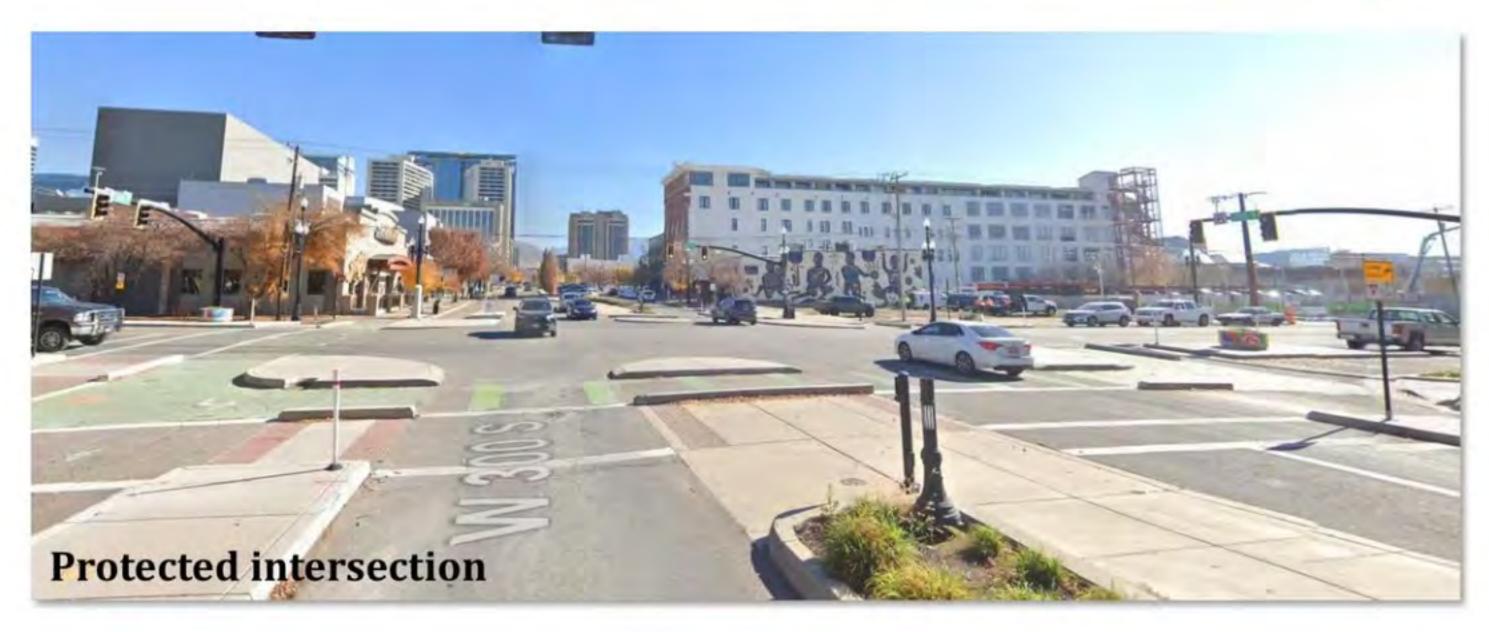
Mineral Avenue and Jackass Hill Road/ Long Avenue Intersection

Alternative	Reasonable cost?	Reasonable construction timeframe?	Works in existing ROW?	Meets project goals?	Consistent with TMP goals?	Move forwa into detail evaluation
Right turn lane modifications with pedestrian refuge	Yes	Yes	Yes	Yes	Yes	Move forwa
Right turn slip lanes	Maybe	Yes	Maybe	Yes	Yes	Move forw
Protected intersection	Yes	Yes	Yes	Yes	Yes	Move forw
Signalization modifications	Yes	Yes	Yes	Yes	Yes	Move forw





Example Treatments Mineral Avenue and Jackass Hill Road/ Long Avenue Intersection









What do you think of the alternatives and draft pre-screening results for the Mineral Ave/Jackass Hill Rd/Long Ave intersection?

I think those are the appropriate things to look at.

The protected infrastructure for bike and ped is ideal. I'm concerned that if the slip lane is done without the protection for bike and ped it would not improve safety.

Helpful, if any signal modification is considered it should be one that removes contention between cars and pedestrians (protected left turns etc)

i think protected lights would be sufficient, especially with traffic improvements/overpass at Santa Fe

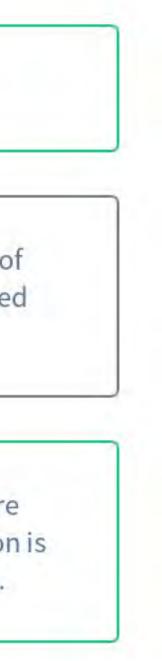
Great alternatives. Need to fix the danger to bikes and pedestrians as they cross north on Mineral on the west side with cars coming down Jackass not looking for pedestrians

Slip lanes are annoying

Need to separate traffic from peds and bikes

Can likely remove slip lanes, since would take a lot of room. Keep signal optimization. Use center protected lanes on Mineral

Turn lanes and signals at Jackass Hill and Mineral are likely all that is really needed. Traffic/bike separation is working well just as it is now. Same for pedestrians.





What do you think of the alternatives and draft pre-screening results for the Mineral Ave/Jackass Hill Rd/Long Ave intersection?

As a driver, I wish that the massive painted signal box was moved. It impedes vision for drivers when turning right from Jackass onto Mineral.



Focus Area High Line Canal Trail Crossing of Mineral Avenue



Mineral Mobility Improvements

Draft Pre-screening Results High Line Canal Trail Crossing of Mineral Avenue

Alternative	Reasonable cost?	Reasonable construction timeframe?	Works in existing ROW?	Meets project goals?	Consistent with TMP goals?	Move forw into detail evaluation
Realignment of crossing on west leg of intersection	Yes	Yes	Yes	Yes	Yes	Move forw
Keep crossing on the east leg of the intersection	Yes	Yes	Yes	Yes	Yes	Move forw
Hybrid crossing	Yes	Modified	Modified	Yes	Yes	Move forw
Underpass under Mineral Ave	No*	No*	Maybe	Yes	Yes	Do not mo forward

* Underpass could be considered as a long-term project



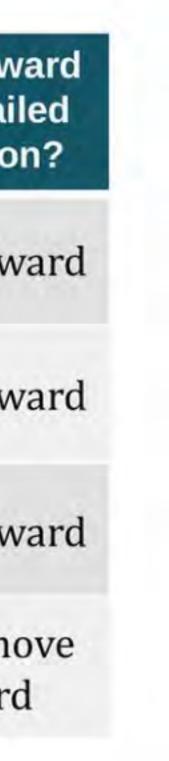
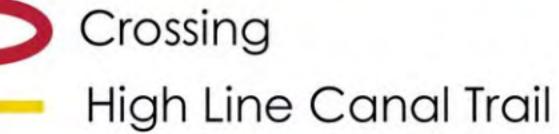


Illustration High Line Canal Trail Crossing of Mineral Avenue









What do you think of the alternatives and draft pre-screening results for the High Line Canal Trail Crossing of Mineral Avenue?

I see no benefits from any of your ideas, save your money for an underpass	1. Hybrid, 2. keep curr Underpass
An underpass is really needed at some point in the future. How can that happen if not in this project?	I'd keep as-is. It would users patterns. I'd foc
Keep as is	create a go fund me fo

rent east crossing.Long term

d be very hard to change High Line us on improving the traffic signal.

or an underpass

Save your dollars--keep it the way it is. Not much gained by either alternative. Could increase trail user wait times to reduce traffic flow impacts, eh?

The crossing as-is does not meet the expectations of drivers, which provides a safety issue for bike and ped. Other options are a minor improvement.

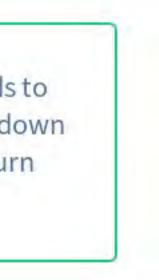
Add crossing on west side but keep crossing where it is aligned now on the east but do something to slow the traffic down coming both ways on Mineral as they currently run the yellow and red lights when the pedestrian light changes





What do you think of the alternatives and draft pre-screening results for the High Line Canal Trail Crossing of Mineral Avenue?

Please consider issues for eastbound bike lane on mineral and merging with cars turning right. The speed differential between these modes is dangerous. the two stage crossing seems like a good interim solution, car users who do not live in the area often do not expect the trail crossing when making a right, despite signage Do all but raised crossing but the flashing light needs to have two signals one at the crossing and one south down the hill as vehicles speed up the hill and make the turn and don't see the crosswalk





Focus Area High Line Canal Trail Crossing of Jackass Hill Road



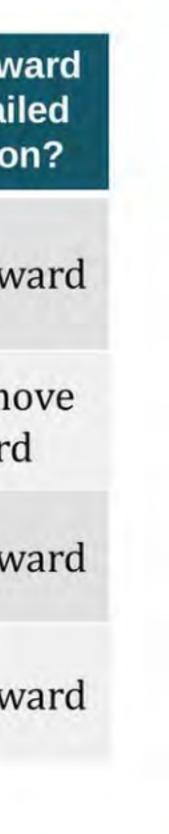
Mineral Mobility Improvements



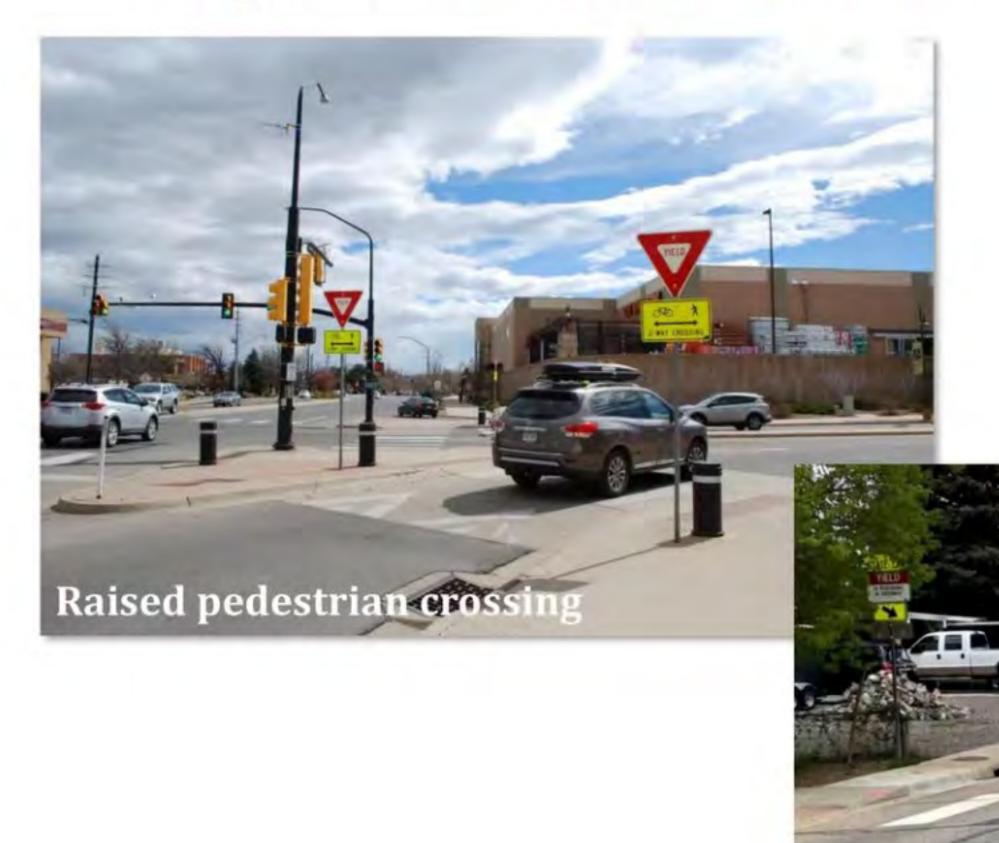
Draft Pre-screening Results High Line Canal Trail Crossing of Jackass Hill Road

Alternative	Reasonable cost?	Reasonable construction timeframe?	Works in existing ROW?	Meets project goals?	Consistent with TMP goals?	Move forwa into detail evaluation
Pedestrian activated signal/ Rapid rectangular flashing beacon	Yes	Yes	Yes	Yes	Yes	Move forw
Enhanced striping and signing	Yes	Yes	Yes	No	Yes	Do not mo forward
Raised pedestrian crossing	Maybe	Yes	Yes	Yes	Yes	Move forw
Center refuge for pedestrians	Yes	Yes	Yes	Yes	Yes	Move forw





Example Treatment High Line Canal Trail Crossing of Jackass Hill Road



Center refuge for pedestrians

Rapid rectangular flashing beacon



Mineral Mobility Improvements



What do you think of the alternatives and draft pre-screening results for the High Line Canal Trail Crossing at Jackass Hill Road?

Raised crossing is a great idea. What about narrowing the driving lanes down that hill. The extra wide lanes encourage high speeds down jackass hill

Center refuge could be more dangerous for ped because they may be waiting in street and be exposed to cars. Big issue when visibility is a concern.

Yes, something has needed at this location for a long time. All good options!

Raised crossing would be a HUGE win. Would slow cars way down who speed up and down Jackass.

Cars don't really stop for yellow lights, so extra signage likely won't make much a difference.Center refuge might be good to slow traffic

We walk this crossing often. Pedestrians need to be made more aware of the need to be alert when crossing. Alternative solutions are not needed. Light is disdained by many. Please don't do it. Pedestrian activated signal

+1 for raised crossing and signal

center refuge might be harder for snowplows







What do you think of the alternatives and draft pre-screening results for the High Line Canal Trail Crossing at Jackass Hill Road?

raised crossing might not work if ambulance route	Need a protected bike speed cars using the c
Important alternative not considered yet: move bike lanes below roadway adjacent to existing trail (E of JH Hill). West? Riders take sidewalk anyway for safety.	Do protected bike lan
Need both paved and unpaved to split walkers and bikes and the paved part can be cleared when it snows for walkers	Very important

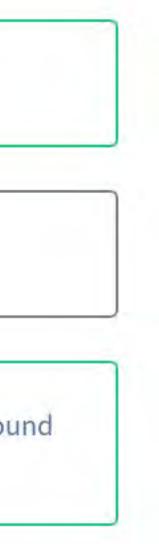
e lane to protect from the high current bike lanes for passing

nes

Do protected bike lanes on both side

Do protected bike lanes

Maybe raised cross walk to slow the traffic down. Round about not a good idea





What do you think of the alternatives and draft pre-screening results for the High Line Canal Trail Crossing at Jackass Hill Road?

consider a raise sidewalk across



Focus Area Mineral Avenue



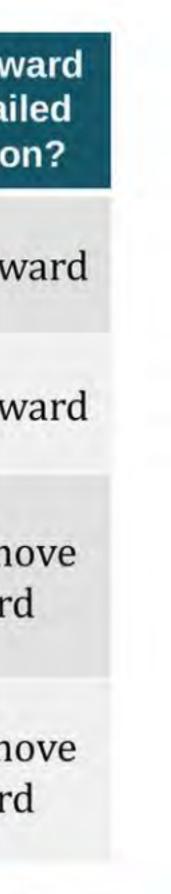
Mineral Mobility Improvements



Draft Pre-screening Results Mineral Avenue

Alternative	Reasonable cost?			Meets project goals?	Consistent with TMP goals?	Move forwa into detail evaluation	
Buffered bike lane with two travel lanes in each direction	Yes	Yes	Yes	Yes	Yes	Move forw	
Protected bike lane with two travel lanes in each direction	Yes	Yes	Yes	Yes	Yes	Move forwa	
Three lanes westbound and buffered bike lane (with median modifications)	No	Yes	Yes	No	Yes	Do not mo forward	
Three lanes westbound with trail improvements (no on-street facility) and expanded sidewalk eastbound	Yes	Yes	Yes	No	Yes	Do not mo forward	

Mineral Mobility Improvements



Example Treatments Mineral Avenue









What do you think of the alternatives and draft pre-screening results for Mineral Avenue?

The protected and buffered lanes prohibit clearing for snow days. Leave lanes as-is.

Buffered bike lanes don't slow cars down. Please don't pursue.

protected bike lane... but would be nice to have the trail improvements long term, so don't have to be right next to traffic.

Agree that we need to maintain on-street bike lanes. How will the lanes be maintained? Narrow up drive lanes to slow vehicles down. Protected lanes are good only if curbs are used. The plastic posts don't add much peace of mind as a cyclist.

pave the trail so road cyclists can ride up the hill

Buffers and bumpers only encourage cars to not pay attention

Buffered bike lanes do not increase bike's sense of safety and will offer no improvement. Protected bike lane with curb stop is necessary to increase perception and actual safety.

It's you not me to overcome buffered bike Lanes don't slow cars down please don't leave





Focus Area Jackass Hill Road



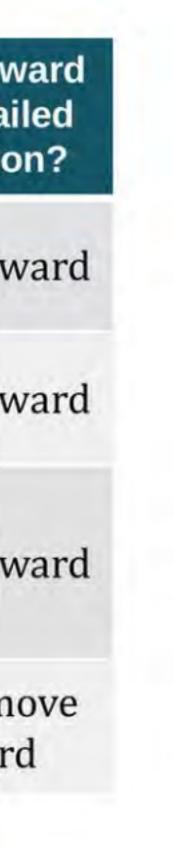
Mineral Mobility Improvements



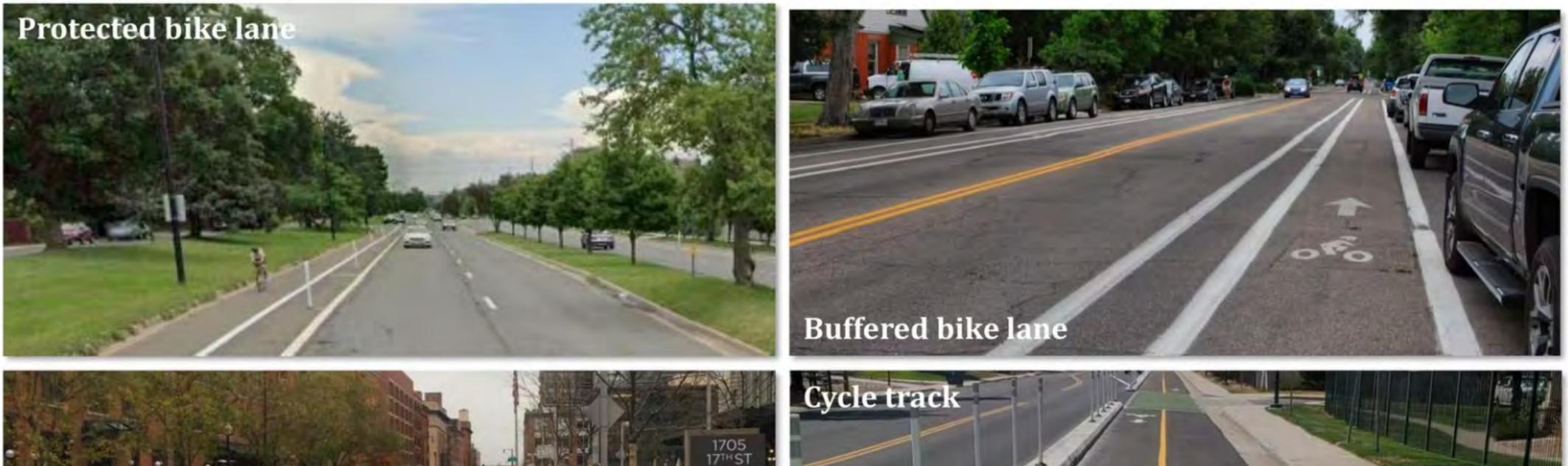
Draft Pre-screening Results Jackass Hill Road

Alternative	Reasonable cost?	Reasonable construction timeframe?	Works in existing goals? ROW?		Consistent with TMP goals?	Move forwa into detail evaluation	
Buffered bike lane with one lane in each direction	Yes	Yes	Yes	Yes	Yes	Move forw	
Protected bike lane with one lane in each direction	Yes	Yes	Yes	Yes	Yes	Move forw	
Bidirectional bike lane (cycle track) with protection on the west side of the street	Maybe	Yes	Yes	Yes	Yes	Move forw	
Expanded attached multiuse path on both sides of the street	No	Yes	Yes	Yes	Yes	Do not mo forward	





Example Treatments Jackass Hill Road









Mobility Improvements



What do you think of the alternatives and draft pre-screening results for Jackass Hill Road?

Protected bike lanes

Bidirectional is interesting. I'd wonder how bikes going northbound would cross back to their side of the street at the top of the hill.

Downhill cycling speeds combined with struggling uphill riders makes the narrow cycle track a dangerous idea. Please keep all traffic moving in the same directions. Buffered bike lane is fine, cycletrack not convenient for bikers. Maybe widen the sidewalk to reduce the road width including the driving lane

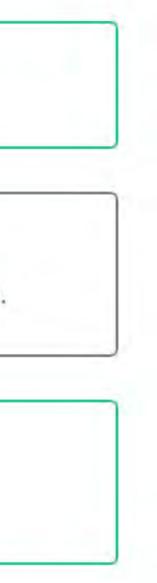
bidirectional bike lanes seem precarious as they would increase contention between cars making left/right turns onto the side streets--cars do not expect bikes in opposite direction of traffic

What about a bike lane with the sidewalk for going up hill and in the street downhill?

Protected Cycle track

PBL or cycle track. Concerned about how the entrance/exits would work with cycle track, though.

Was a raised walkway crossing not considered at Jackass/Jameson?





What do you think of the alternatives and draft pre-screening results for Jackass Hill Road?

cycletrack makes intersections confusing for drivers

Across Jackass from Jameson to Curtis as a way to slow drivers down.

Merging of bikes and cars at Mineral needs to be addressed. Bikes lose their lane and that is not addressed here.

More on the raise walkway - drivers also speed at high speeds up Jackass too. They start at the curve and accelerate through the Jameson/Curtis/Jackass intersection. Raised walkway would slow them down. like the comment on the different speeds

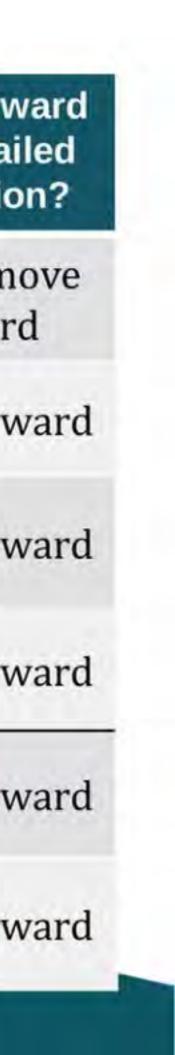




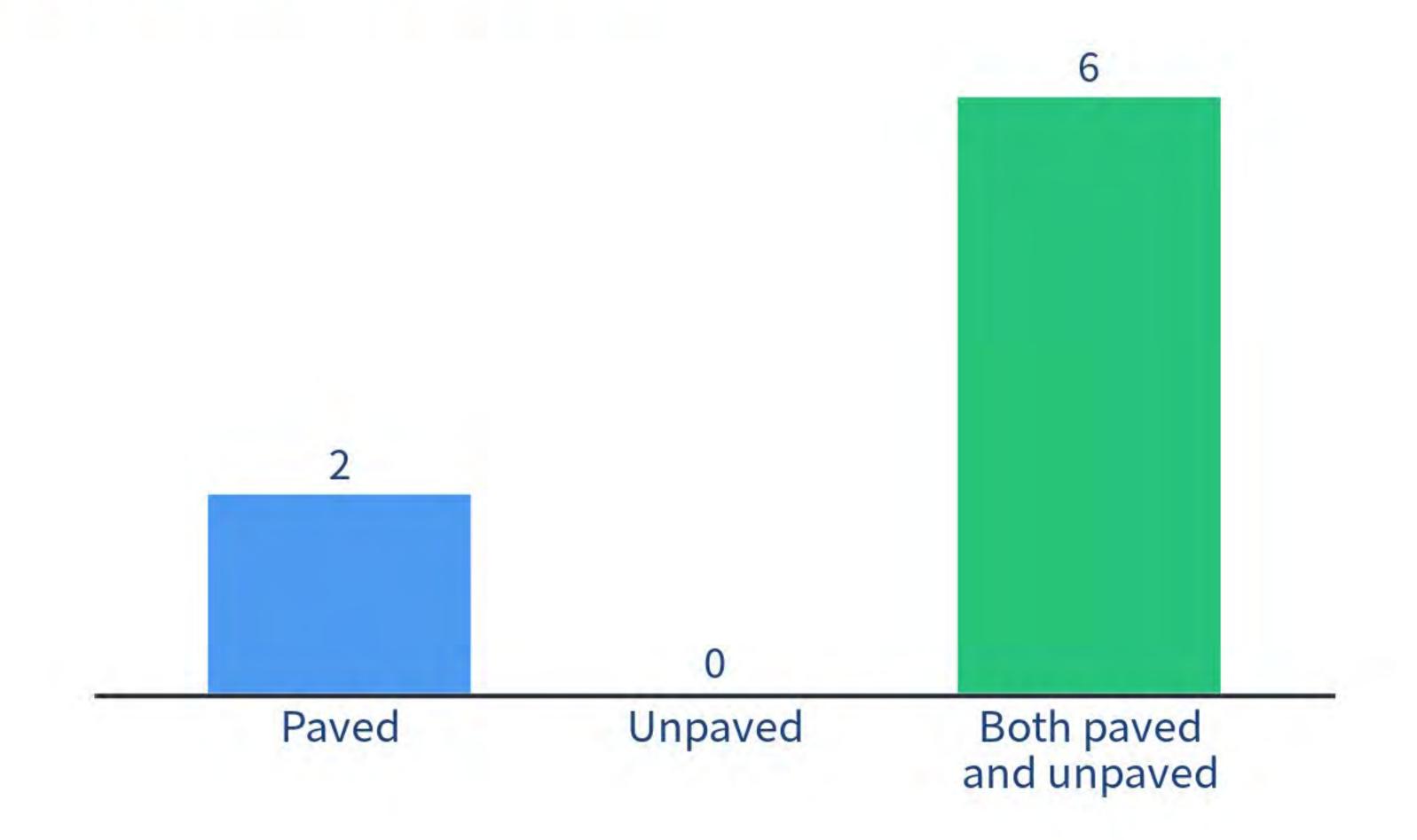


Draft Pre-screening Results Mineral Avenue Trail

	Alternative	Reasonable cost?	Reasonable construction timeframe?	Works in existing ROW?	Meets project goals?	Consistent with TMP goals?	Move forw into detail evaluation
Hill	Spot improvements and reinforce soft surface trail	Yes	Yes	Yes	No	Yes	Do not mo forward
of Jackass	Pave trail	Yes	Yes	Yes	Yes	Yes	Move forw
East of Jac	New paved trail adjacent to existing soft surface trail	Yes	Yes	Yes	Yes	Yes	Move forw
	Pave trail with designated space for bikes/peds	Maybe	Yes	Yes	Yes	Yes	Move forw
West of Jackass Hill	Expand sidewalk with designated space for bikes/peds	Maybe	Yes	Yes	Yes	Yes	Move forw
	Expand sidewalk	Yes	Yes	Yes	Yes	Yes	Move forw

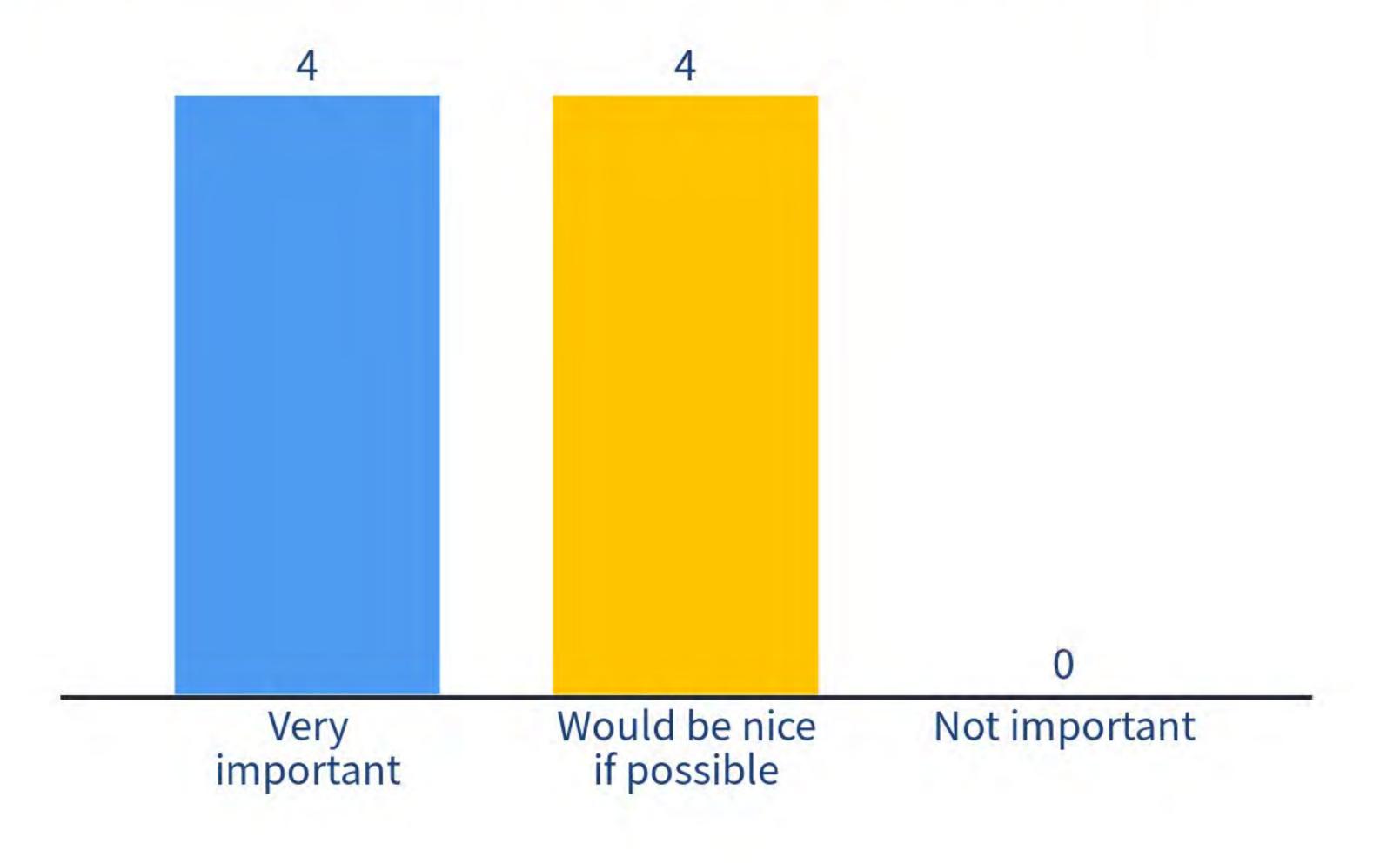


Would you prefer the Mineral Avenue Trail be paved, unpaved, or both?





How important is it to separate bicyclists and pedestrians on the Mineral Avenue Trail??





Focus Area Jackass Hill Road and Jamison Way/Curtice Court Intersection



Mineral Mobility Improvements

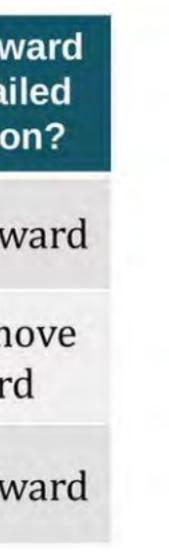


Draft Pre-screening Results

Jackass Hill Road and Jamison Way/Curtice Court Intersection

Alternative	Reasonable cost?	Reasonable construction timeframe?	Works in existing goals?		Consistent with TMP goals?	Move forwa into detail evaluation
Traffic circle or mini-roundabout	Maybe	Yes	Yes	Yes	Yes	Move forw
New curb and gutter for curb extensions	No	Yes	Yes	Yes	Yes	Do not mo forward
Center medians on Jackass Hill	Yes	Yes	Yes	Yes	Yes	Move forw





What do you think of the alternatives and draft pre-screening results for the Jackass Hill Road and **Jamison Way/Curtice Court Intersection?**

Forget the traffic circle and center medians...more approachable curb and gutters for cyclists (who stick to sidewalks for safety) and peds would be good.

mini roundabout

There isn't great visibility when turning onto Jackass from either way. Median would be better than circle as I think drivers on Jackass will ignore the mini circle.

have the unsightly posts around it

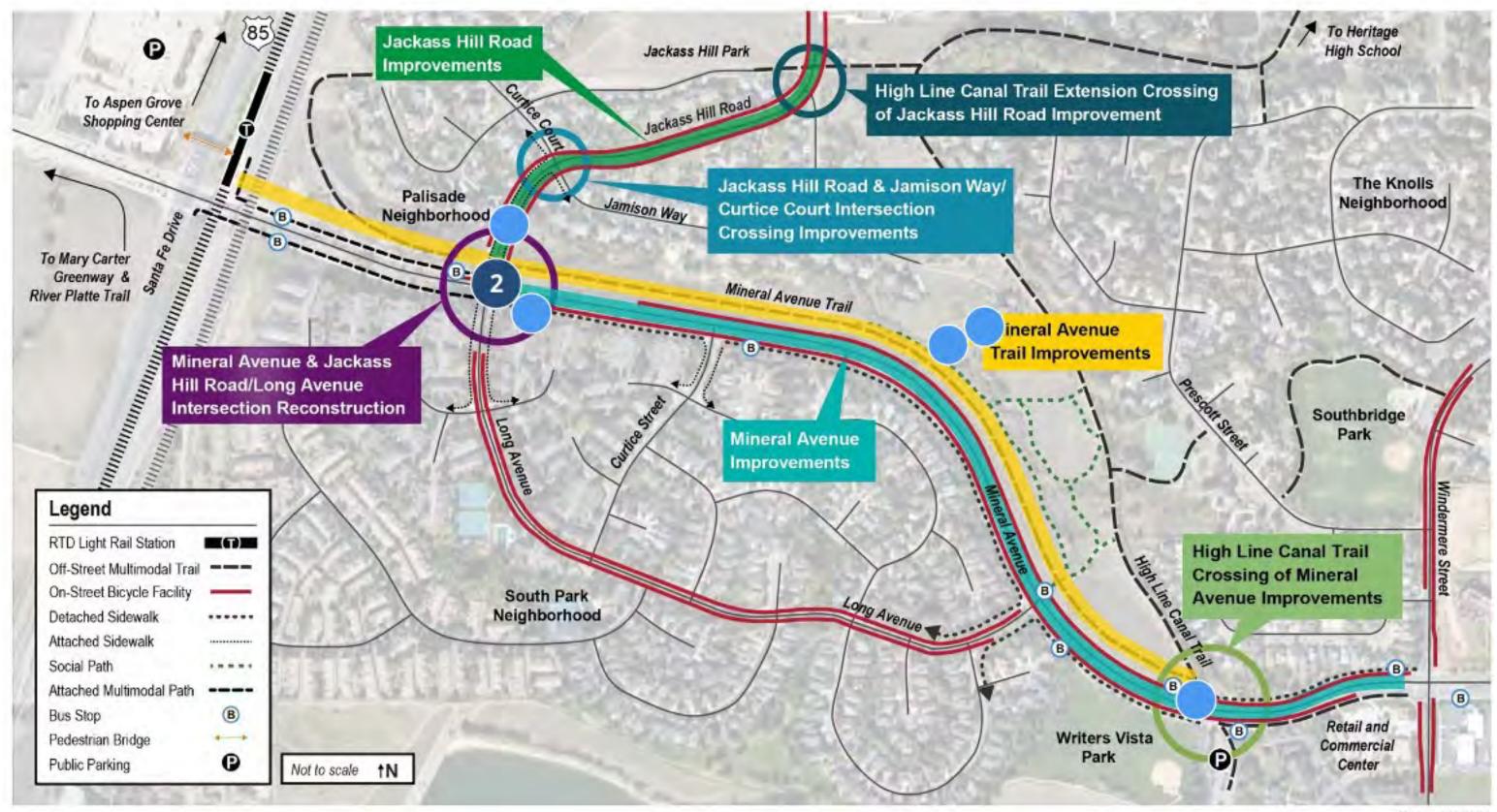
options here

Anything that slows traffic





Please drop the pin on the focus area location most important to you. Which location needs improvements the most?



Updated 12/10/21



Next Steps



Next Steps

Early 2022: Screen improvement alternatives

Late Spring 2022: Community engagement point #2

Late Summer 2022: Complete preliminary (30%) design

Late Summer 2022: Community engagement point #3

Late 2022: Complete final design

2023: Begin construction





Stay Engaged

- Participate in community engagement events

 Late Spring: Review the draft preferred alternatives
 Late Summer: Review the preliminary design
- View project updates, join the mailing list, and submit comments
 <u>https://www.mineralmobilityimprovements.com</u>
- Email or call
 - Aaron Heumann, City of Littleton Transportation Engineering Manager <u>pwprojects@littletongov.org</u>, 303-795-3867





https://www.mineralmobilityimprovements.com

Group Discussion and Questions & Answers





Thank You!



