



**PARK CITY COUNCIL MEETING MINUTES
445 MARSAC AVENUE
PARK CITY, SUMMIT COUNTY, UTAH 84060**

August 15, 2019

The Council of Park City, Summit County, Utah, met in open meeting on August 15, 2019, at 2:00 p.m. in the City Council Chambers.

Council Member Ware Peek moved to close the meeting to discuss property and personnel at 2:00 p.m. Council Member Joyce seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

CLOSED SESSION

Council Member Gerber moved to adjourn from Closed Meeting at 4:15 p.m. Council Member Worel seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

WORK SESSION

Electric Bicycles - Natural Surface Trail Discussion:

Heinrich Deters, Trails Manager, presented this item and stated there had been several requests for allowing e-bikes on trails, especially for those of a certain age or for those with mobility issues. A pilot program was initiated in 2014 which resulted in e-bikes being prohibited on single track trails except for those individuals who had mobility issues. He reviewed what some other cities in Colorado and Utah had done with regard to e-bikes on natural surface trails. Deters submitted an environmental impact study, a recreation study from Basin Rec, and an evaluation of Class 1 EMTB for the record (see attached documents.) Deters recommended another survey be performed.

Mayor Beerman opened the meeting for public input.

Dennis Frieder, disabled Vietnam veteran, hoped there could be a mobility exception for e-bikes on trails. He knew e-bikes didn't destroy trails. He asked for a sticker to show that he was on the trails legally.

Richard Luskin was familiar with risk assessment. He reviewed his work history in the ski industry. He stated the e-bike study in 2014 excluded e-bikes and then the ordinance was passed which banned e-bikes, which he thought was backwards. In Europe, e-bikes were the only bikes available to rent, but when he rode his e-bike on the City trails, he would get harassed. He knew there was a possibility of abuse, but he recommended a pilot program opening the trails for all, and then making a determination based on the data gathered.

Andre Shoumatoff, Park City Bike Demos, indicated he did not like e-bikes. But at his bike shop, visitors from Colorado and Europe came in wanting e-bikes and complained that the bikes were prohibited. He stated e-bikes were the biggest sellers. He rode one and now he was for e-bikes. He thought this was a trails management issue. He also thought this was an opportunity to bring more people to town and to the industry.

Ian Turley, White Pine Touring, stated he attended several meetings and the issue was land use. He appreciated the legacy when individuals donated trails to the City. He hoped that the City could look at e-bikes as a new thing and would protect everyone's right by giving access to all.

Dennis McCormick stated he built the trails in the 1980s and was also a former bike racer. He didn't think the trails should have motorized vehicles on them.

Neil Macc worked in the bike industry and noted the extreme global growth of e-bikes. He thought people of different fitness levels should be able to enjoy the trails.

Melissa Richardson was a proponent for e-bikes and had been working with Basin Rec and advocating for e-bikes on trails. She suggested having a demo day so people could try out e-bikes.

Jeff Creveling stated the goal of having trails was to get people out on the hillside. He felt the e-bikes created noise from the motor and cut in to the quiet of the surroundings. He was for e-bikes with quiet motors

Mayor Beerman closed the public input portion of the meeting.

Deters stated the public comments were reflective of the community and he encouraged a survey so more comments could be gathered.

Council Member Worel supported a survey, but requested a zip code from responders so staff could determine the responses from residents versus visitors. Council Member Gerber looked forward to hearing more from the community through the survey. She felt ADA access on the trails should be strongly considered.

Council Member Henney hoped the survey would determine the different opinions in the community. He felt this was an evolutionary process. He thought trails could be created for e-bikes, and he knew McCormick was right; that the original trails were not meant for e-bikes.

Foster suggested survey language be used to determine the tolerance for e-bikes. Council Member Joyce stated the e-bike survey from last year had 78% of responders against it, so he didn't think the sentiment would change this year. He thought an e-bike going 20 mph uphill would be a danger to hikers. He favored Council Member Gerber's ADA suggestion.

Council Member Ware Peek stated the survey from last year didn't have the complex wording which could change the responses, and favored having a new survey. She liked seeing seniors riding e-bikes who wouldn't otherwise ride bikes. She agreed that there were many trails that e-bikes should not be ridden on. She looked forward to a continued conversation.

Council Member Gerber noted the International Mountain Bike Association (IMBA) stated e-bikes should be regulated differently and asked if Deters could expound on what the different regulations were and what that meant at a future meeting.

Mayor Beerman stated in five years there would be e-bikes on trails and the City should get ahead of the demand. He heard several comments on segregating trails and he favored that. He favored permitting/licensing for those with mobility issues and for those over a certain age. He favored the survey as well as designating a couple of pilot trails.

Council favored a licensing system for disability, mobility or for age. It was noted the City already allowed for disabilities on the trails.

Deters stated he would come back to Council with recommendations after consulting with the Legal Department. Council Member Ware Peek asked if Deters felt comfortable crafting complex survey language. Deters stated the people in the room would be giving their input and his team would meet with a professional survey writer. He also stated staff could look at other cities and get their feedback.

Council Member Gerber asked how using an e-bike would affect parking at trailheads. Deters stated that would be an unintended consequence.

Old Town Traffic and Circulation Update

Jonathan Weidenhamer, Alexis Verson, Jenny Diersen, Corey Legge, and Johnny Wasden presented this item. Weidenhamer stated his goal was to balance the growth of the resorts with keeping the traffic off the side streets in Old Town. He recommended a study on how to keep the trips away from the residential streets. He reviewed Council

discussions from 2009, and stated it was time to revisit this topic. He recommended wayfinding signs, shuttles, prohibited travel at certain times of day or during certain seasons, etc. Weidenhamer talked with taxi companies and he felt it would be discrimination if taxi drivers had to drop off in load zones, but Uber drivers could drop off at the door.

Diersen discussed the outreach efforts made in the Old Town area. Verson stated there were concept designs and recommendations that would be coming to Council in the future, and noted they were not planning on widening the road.

Council Member Henney was informed that limiting shuttles and traffic with the left turn would have some unintended consequences of vehicles and/or shuttles that would be pushed to the roundabout. He indicated that scenario would cripple the City's traffic flow. Council Member Joyce stated prohibiting turns would push traffic to shortcut routes. He thought this issue should be carefully considered.

Council Member Ware Peek asked why Ubers had drop zones at the airport. Margaret Plane indicated the airport could regulate it because a business was using commercial property, but when the discussion was on public streets, those regulations would not fit. More discussion ensued on taxis versus Uber/Lyft.

Council Member Worel indicated Weidenhamer stressed that rules were only as good as the enforcement. She asked what the capacity was for the Police Department to increase enforcement. Wade Carpenter, Police Chief, stated that was a level of service question. Main Street enforcement would require an officer on Main Street every night. Wasden indicated there was parking enforcement on Main Street as well, but it was unclear if they could address violations in the street. Carpenter added that stopped vehicles were told to move along because if a ticket was given, that would stop all traffic behind the stopped vehicle. An officer assigned to Main Street could direct a vehicle to pull around a corner and then address the violation. He stated he would evaluate the budget needed to fund this type of enforcement.

Weidenhamer noted part of the problem could be resolved through wayfinding signs, and stated that could be a quick fix.

Council Member Gerber asked if there was something that could be done with the drop zones that would make it more appealing for commercial vehicles, such as more diligent snow shoveling and de-icing in those areas.

Mayor Beerman opened the meeting for public input.

Greg Gendron, past chair of Park City Area Lodging Association (PCALA), spoke on behalf of the resorts and thanked Council and staff who reached out to them. He apologized to the Hillside residents for their distress. He noted the efforts the resorts made, including having shuttles which took so many cars off the road. He promised to look at seasonality and times during the day if needed.

Michael Faulk agreed with Council Member Henney's supportive comment on favoring the local taxis over the Ubers. He indicated the drop zones for taxis could also be used by delivery vehicles during the day.

Leici Sosnozoski, taxi company owner, supported taxis and thanked Council Member Henney for his supportive comments. She wished the City could challenge the state law with regard to Ubers.

Dennis Peterson related his experiences on Hillside, and stated the traffic made the street dangerous. He felt the problem was that Park City was losing its soul. The City should figure out what the answer was, and he hoped the City respected the residents as much as the businesses and resorts.

Clive Bush summarized a letter Peter Marth had given him to share with the Council. The sentiment petitioned the City to stop the traffic on Hillside. Marth cared for Old Town and hoped the issue would be fixed for the next generation. Bush stated the City was not just fighting Uber, but was also fighting GPS and Google Maps. He stated one day Main Street would be shut down for traffic. The neighborhoods needed to be protected. He gave a comparison of Hillside Avenue and King Road and proposed questions to be considered as decisions for Hillside were measured. He stated the planning was being done too heavily by engineers and it should have more community planning.

Public comment for this item continued during the regular meeting.

REGULAR MEETING - 6:00 p.m.

I) ROLL CALL

Attendee Name	Status
Mayor Andy Beerman Council Member Becca Gerber Council Member Tim Henney Council Member Steve Joyce Council Member Lynn Ware Peek Council Member Nann Worel	Present

Diane Foster, City Manager Matt Dias, Assistant City Manager Margaret Plane, Special Counsel Michelle Kellogg, City Recorder	
None	Excused

Public comment continued from Work Session.

Angela Moschetta stated she sent an email to Council and would not repeat that, but indicated the Uber/Lyft situation should be looked at again, and gave a few suggestions. She stated the traffic discussions were in silos and there should be a big discussion on SR248, Old Town, Deer Crest, etc. She stated there was a film studio for sale and it could be turned into a transit center.

Jeff Creveling reviewed his education and work history, and stated there was only Main Street, and Swede Alley was the step child. He stated there was a suggestion to dig a tunnel to Deer Valley and all the traffic would be eliminated, although that suggestion was expensive. He suggested constructing a circle south of China Bridge that comes out onto Swede Alley.

Sam Rubin, Four Seasons Concierge, distributed a handout on Department of Transportation (DOT) Multimodal Passenger Transportation Regulations. He proposed that drivers with more than 15 passengers should be prohibited, and drivers with nine to 14 passengers could only go downhill. He requested Park City lead the change with Uber.

Rob Slettum thought the proposed circle next to China Bridge or a turnaround at the Brew Pub lot were plausible solutions for traffic.

Doug Stephens hoped Council would consider the impact on the Historic District as it decided on traffic solutions.

Mayor Beerman closed the public input portion of the meeting.

Three questions were displayed for Council feedback: (1) Is Council supportive of the ongoing and recommended next steps – comprehensive study, wayfinding, commercial vehicle license and permit zones, and voluntary lodging initiatives; (2) Does Council want to take stronger measures to reduce trips on Hillside, i.e. no left onto Hillside/no right onto Marsac before 3:00 p.m.; (3) If supportive of commercial vehicle changes, does Council support a consistent, all day commercial vehicle drop and load and/or short term parking area, or prefer 5:00 p.m. – 12:00 a.m.

Council Member Ware Peek hoped visitors would embrace the lifestyle of the locals. She favored the wayfinding signs. She favored moving forward with the study and praised staff for trying to take the feedback and create something better. She asked how the circle next to China Bridge would be engineered. Legge stated a study was done, but designs were not yet made. Council Member Ware Peek asked that the City set a vision for what Park City would become. She liked the recommended next steps, she deferred on the Hillside turn restrictions, and was in favor of commercial vehicle changes.

Council Member Joyce preferred letting shuttles drive through Hillside and limit all other vehicles, because of the Transit First initiative. He liked the next steps, but requested more than car counting. He was against limiting turns onto Hillside and wanted to wait until Transportation Planning returned with recommendations before acting. Regarding commercial vehicles, he preferred consistency and reiterated Transit first and cars last.

Council Member Henney was in favor of Question One, wanted to wait on Question Two, and was in favor of Question Three. He supported Council Member Joyce's comments on consistency and Council Member Ware Peek's comments on protecting the neighborhoods.

Council Member Gerber stated the Historic Park City Alliance (HPCA) was willing to give up parking spaces for drop zones, but they thought there needed to be a comprehensive study, not just a study on Old Town. She favored commercial vehicle changes and wanted to see trips reduced on Hillside, especially the resort shuttles. HPCA favored drop zones after 5:00 p.m., but there needed to be a discussion on the all-day use of drop zones. She hoped there would be thorough planning and all options weighed, including new streets.

Council Member Worel agreed with Stephen's comments on livability within the Historic District. She agreed with Moschetta that the traffic study should be broadened. Verson stated anything could be done, but cost was a factor. She was a proponent of studying as much as possible before acting. Long Range Transportation Planning staff was studying the City's arterials and how people moved into Main Street, and they had a sense of future impacts. She would look at the Old Town Circulation Plan and make sure it worked well with the long range plan. Council Member Worel like the wayfinding measures and the efforts from the lodging industry to reduce trips on Hillside. She wanted to hear from the taxi company owners before responding for Commercial Vehicle license and permit zones, but favored a pilot program aimed at reducing trips on Hillside.

Mayor Beerman lived and worked on Main Street and he knew it was broken at points. He wanted to protect residential streets. He thought streets could be segregated. He suggested Swede Alley could be a dispatch street and the taxis, shuttles and other

commercial vehicles could get off Main Street. He supported Questions One, Two and Three. He wanted to implement the No Left Turn signs onto Hillside as well as from Hillside, which would apply to all vehicles. He requested video footage to see those that traveled on that street because he didn't think the voluntary compliance was working.

Council Member Gerber asked for feedback from Hillside residents with regard to the No Left Turn on Hillside. Weidenhamer stated he expected further discussion from staff, and would come back to Council at a future date. To recap, the majority of Council wanted a comprehensive traffic study, implement short term solutions, such as voluntary lodging initiatives, and establish commercial drop and load zones on Main Street.

II) APPOINTMENTS

Consideration to Approve the Appointment of Tana Toly to the Historic Preservation Board to a Term Expiring May, 2021:

Liz Jackson, Planner 1, indicated Tana Toly was recommended to be appointed to the Historic Preservation Board.

Council Member Ware Peek moved to approve the appointment of Tana Toly to the Historic Preservation Board to a term expiring May, 2021. Council Member Worel seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

IV) PUBLIC INPUT (ANY MATTER OF CITY BUSINESS NOT SCHEDULED ON THE AGENDA)

Mayor Beerman opened the meeting for public input on matters not being addressed on the agenda. No comments were given. Mayor Beerman closed the public input portion of the meeting.

III) COMMUNICATIONS AND DISCLOSURES FROM COUNCIL AND STAFF

Council Questions and Comments:

Mayor Beerman indicated Council would skip this item in the interest of time.

Staff Communications Reports:

1. 2019 Government Finance Officers Association (GFOA) Distinguished Budget Presentation Award & Monthly Budget Report for July, 2019:

2. Backhoe Report - August 2019:

3. Tour of Utah Reminders:

4. 2019 Wildfire Season Update:

5. Annexation Policy Plan Update:

V) CONSIDERATION OF MINUTES

Consideration to Approve the City Council Meeting Minutes from July 18 and 31, 2019:

Mayor Beerman requested an amendment to the July 31st minutes, Page Two, Lines Three and Four.

Council Member Gerber moved to approve the City Council Meeting minutes from July 18 and 31, 2019 as amended. Council Member Ware Peek seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

VI) CONSENT AGENDA

1. Request to Authorize the City Manager to Execute a Professional Services Agreement for Commissioned Art by Dana Kuglin of Dana B. LLC, in a Form Approved by the City Attorney to be Located at the Creekside Park in an Amount estimated at \$23,900, Not to Exceed \$25,000:

Council Member Henney stated the artwork for this project was terrific. Council Member Worel stated it spoke to the quality of the Public Art Advisory Board (PAAB).

Council Member Henney moved to approve the Consent Agenda. Council Member Worel seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

VII) OLD BUSINESS

1. Consideration of the Proposed Use of Space by PC MuSE, at 1685 Bonanza Drive, Park City, Utah:

Nate Rockwood and Jodie Whitesides were present for this item. Rockwood stated that he, Council Member Worel and Council Member Ware Peek visited with the tenants about mitigation efforts with regard to parking, cleaning and noise. PC MuSE agreed to those mitigations and they would be included in the agreement that this organization

would sign. Council Member Ware Peek stated it was good meeting with the tenants and all the issues were addressed, especially the security of the building. Council Member Worel noted the tenants wanted to have the issues in writing.

Mayor Beerman opened the public hearing. No comments were given. Mayor Beerman closed the public hearing.

Council Member Worel moved to approve the proposed use of space by PC MuSE, at 1685 Bonanza Drive, Park City, Utah. Council Member Gerber seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

VIII) NEW BUSINESS

1. Park City School District Master Planning Update:

Jonathan Weidenhamer, Economic Development Manager, Jill Gildea, Park City School District Superintendent, and Andrew Kaplan, Park City School Board, presented this item. Weidenhamer stated the school district involved the City in the master planning process. Mayor Beerman indicated he appreciated that they had reached out to the community and City.

Gildea reviewed the options within the master plan. Community based preschool was proposed in each of the three elementary schools. The team was discussing universal Pre-K. There were four options for aligning the grades, including having neighborhood K-5 schools. Surveys and community discussion preferred having one comprehensive high school, although there were two other options: having two high schools and having one high school and one specialty high school.

A cost estimate was performed for all the school buildings to gauge the cost of maintenance versus the cost of a new building. Council Member Worel noted Treasure Mountain School was not on the display. Gildea indicated this page was just a sample, but all the buildings had been reviewed.

Kaplan stated Pre-K was a top priority in the planning process, then the middle years, which included the complicated decision of moving the ninth grade to the high school. He wanted the high school campus to be one that lasted and could adapt over time. He thought Treasure Mountain would be replaced. Gildea indicated having facilities that helped children create, learn and prepare for the future was critical.

Council Member Ware Peek asked Kaplan what percentage of students lived outside City limits, to which he responded that 75% of students lived outside City limits. Gildea

stated this was the right size community to still have one high school. She was interested in the specialty high school and wondered if a dedicated building could be on the Kearns campus.

Kaplan stated schools should be a complete community and noted the students living outside the City limits still considered themselves Park City residents. He noted the Park City School District was the best in the state.

Council Member Gerber thanked Gildea for prioritizing universal Pre-K. She asked what the timeline was for the master plan. Gildea stated the board would be presenting the master plan at open houses and would then start narrowing the options. Council Member Gerber asked if the schools would be involved in the Vision 2020 process. Mayor Beerman stated there would be an education component in the think tank.

2. Consideration to Approve Ordinance No. 2019-44, an Ordinance Approving an Extension of the July 12, 2018 Approval of the 1304 Park Avenue Plat Amendment Located at 1304 Park Avenue, Park City, Utah:

Liz Jackson, Planner 1, presented this item and indicated the applicant requested a one year extension in order to work on conditions of approval as set forth in the ordinance.

Mayor Beerman opened the public hearing. No comments were given. Mayor Beerman closed the public hearing.

Council Member Gerber moved to approve Ordinance 2019-44, an ordinance approving an extension of the July 12, 2018 approval of the 1304 Park Avenue Plat Amendment located at 1304 Park Avenue, Park City, Utah. Council Member Worel seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

3. Introduction to Public Utilities Items:

Clint McAfee, Roger McClain, and Michelle DeHaan, Water Department, were present for this item. McAfee reviewed there were seven water sources, including two mine tunnels. The two tunnels provided 34% of the water supply, and provided snow making and secondary irrigation. They contained metals and were not capable of being drinking water. The water needed to come into compliance with the stream water standards. McAfee reviewed the necessary steps for the tunnels to become compliant, along with the cost for the projects.

Council Member Gerber didn't think the remodels for staff fell within Water Quality. McAfee stated it fit in a roundabout way. Council Member Gerber asked that in future

meetings as these projects progressed, that staff show the project price and how each contract reflected how close the project was to the budgeted amount. McAfee stated the budget was established years ago and to date he didn't have to ask Council for additional funds. Council Member Worel requested that future staff reports include the percentage the project was to completion.

4. Consideration to Authorize the City Manager to Execute Amendment No. 3 to the Professional Services Agreement with Alder Construction Company, in a Form Approved by the City Attorney, in an Amount Not to Exceed \$82,374.00:

McClain stated this was for additional design services for 3Kings Water Treatment Plant (3KWTP), for design support and shop drawing process services for UV disinfection system equipment, backwash waste clarification skid equipment, and filter press system equipment.

Mayor Beerman opened the public hearing. No comments were given. Mayor Beerman closed the public hearing.

Council Member Ware Peek moved to authorize the City Manager to execute Amendment No. 3 to the professional services agreement with Alder Construction Company, in a form approved by the City Attorney, in an amount not to exceed \$82,374.00. Council Member Joyce seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

5. Consideration to Authorize the City Manager to Execute Amendment No. 4 to the Professional Services Agreement with Alder Construction Company, in a Form Approved by the City Attorney, in an Amount Not to Exceed \$2,915,000.00:

McClain stated this was for the construction of 3KWTP for off-site utilities, including road work in Three Kings Drive to move the water lines. He reviewed the other four pieces of the project as well and stated they would be coming to Council for approval before the end of the year.

Council Member Joyce asked about the Spiro Tunnel maintenance work. McAfee stated that work was part of this project as well, but not part of this contract amendment. Council Member Joyce asked if this maintenance work would be discussed at the community meeting. McAfee stated the focus at the meeting would be the road work for 3KWTP.

Council Member Worel stated she received feedback that one of the back walls by the Thaynes conveyor was about to collapse. McAfee explained he was working with that group to solve the problem.

Mayor Beerman opened the public hearing. No comments were given. Mayor Beerman closed the public hearing.

Council Member Henney moved to authorize the City Manager to execute Amendment No. 4 to the professional services agreement with Alder Construction Company, in a form approved by the City Attorney, in an amount not to exceed \$2,915,000.00. Council Member Ware Peek seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

6. Consideration to Authorize the City Manager to Execute Amendment No. 6 to the Professional Services Agreement with Alder Construction Company, in a Form Approved by the City Attorney, for a Guaranteed Maximum Price Not to Exceed \$6,275,000.00.

McClain stated this item addressed the Quinn's Water Treatment Plant. There would be improvements, including office space, parking, an interconnect vault and a pigging vault. He stated this was the last phase of the Quinn's improvements. There would also be a storage building constructed next to the facility. He noted he received the Conditional Use Permit (CUP) approval from the Planning Commission last night. He noted the storage building would have solar panels to achieve net zero, and the inside temperature would be just above freezing.

Mayor Beerman opened the public hearing. No comments were given. Mayor Beerman closed the public hearing.

Council Member Worel moved to authorize the City Manager to execute Amendment No. 6 to the professional services agreement with Alder Construction Company, in a form approved by the City Attorney, for a guaranteed maximum price not to exceed \$6,275,000.00. Council Member Henney seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

7. Consideration to Authorize the City Manager to Execute the First Addendum to the Design Professional Services Agreement with Bowen, Collins and Associates, Inc., in a Form Approved by the City Attorney, in an Amount Not to Exceed \$205,000.00:

McClain indicated this contract would be for 3KWTP and Quinns, for services to watch the contractor in order to make sure nothing was overlooked.

Mayor Beerman opened the public hearing. No comments were given. Mayor Beerman closed the public hearing.

Council Member Worel moved to authorize the City Manager to execute the First Addendum to the Design Professional Services Agreement with Bowen, Collins and Associates, Inc., in a form approved by the City Attorney, in an amount not to exceed \$205,000.00. Council Member Gerber seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

8. Consideration to Authorize the City Manager to Execute Amendment 1 to the Construction Manager at Risk (CMAR) Agreement with North Ridge Construction, Inc., in a Form Approved by the City Attorney's Office for the Guaranteed Maximum Price (GMP) of \$1,650,000:

Matt Twombly, Senior Project Manager, presented this item. He stated this staffing alternative was originally a temporary fix, but now it would be a permanent staffing solution for Building Maintenance, Streets, and Parks teams. He noted this project was value engineered, but the energy model was a challenge. The building was open 18 hours per day, seven days per week. Luke Cartin stated they had reduced the energy use by 60%.

Mayor Beerman asked if energy was reduced or was the model reworked. Cartin stated both were figured. Twombly stated he amended the recommendation to add \$200,000 to the requested amount in order to add solar panels to the building. McAfee stated the extra \$200,000 would get the building to net zero, but they felt confident the actual number would be less than \$200,000. The amended total cost would be \$1,850,000.

Council Member Joyce didn't know why the City was still adding solar panels to roofs since the City would have renewable grid power, which was much less expensive. Cartin stated the power contract would be a 25 year contract and he was getting that locked down currently. Once the contract was in place, it would take a couple of years to come online. Council Member Joyce suggested building an electric box that would be compatible with the solar grid. Mayor Beerman asserted the Council passed a resolution saying it would build net zero and he wanted to continue with the City's green efforts. Council Member Joyce stated he would not have this conversation if the City wasn't on track to sign a solar power contract. Further discussion ensued. It was decided to pass the contract with the additional funds and then refine the number and come back to Council. Council Member Joyce favored spending the extra \$200,000 on energy saving equipment.

Mayor Beerman opened the public hearing.

Jeff Creveling stated the numbers were in favor of Council Member Joyce with everything coming on the grid.

Mayor Beerman closed the public hearing.

Council Member Gerber moved to authorize the City Manager to execute Amendment 1 to the Construction Manager at Risk (CMAR) Agreement with North Ridge Construction, Inc., in a form approved by the City Attorney's Office for the Guaranteed Maximum Price (GMP) of \$1,850,000, including an amount not to exceed \$200,000 for energy efficiencies to make the building net zero. Council Member Ware Peek seconded the motion.

RESULT: APPROVED

AYES: Council Members Gerber, Henney, Joyce, Ware Peek and Worel

PUBLIC INPUT (ANY MATTER OF CITY BUSINESS NOT SCHEDULED ON THE AGENDA)

Jeff Creveling indicated he wanted to bring attention to Main Street Park. There were four properties that had no man's land back to the creek. The City owned the west side, but did not maintain it. He related experiences with each of the owners of these properties and noted his property was across the street. He wanted to call attention to the owner on the south, who moved the house with zero property line. He wanted the park to be recreated and the property lines cleaned up. He stated he would come back to discuss it further.

IX) ADJOURNMENT

With no further business, the meeting was adjourned.

Michelle Kellogg, City Recorder

E-bikes on Natural Surface Trails (E-MTBs)

Why is this important?

- Providing a world class recreational opportunity for residents and guests
 - Facilities and User experience.
- Provide for additional public discussion and revisit a new ordinance and evolving recreational technology/use

Focus of this report

- Class I Electric Mountain Bikes (E-MTBs)
 - Pedal Assisted Mountain bikes limited to 20mph
 - Currently prohibited on PCMC single-track* (exceptions)

What are current discussion points?

- Revisit prohibition of e-mtb on single-track
 - discussion & survey recommendation
- Request of permit (or similar system) and/or age exception
- Possible pilot project
- Economic Aspects



41-6a-102

(5)

(a) "Bicycle" means a wheeled vehicle:

- (i) propelled by human power by feet or hands acting upon pedals or cranks;
- (ii) with a seat or saddle designed for the use of the operator;
- (iii) designed to be operated on the ground; and
- (iv) whose wheels are not less than 14 inches in diameter.

(b) "Bicycle" includes an electric assisted bicycle.

(c) "Bicycle" does not include scooters and similar devices.

(17) "Electric assisted bicycle" means a bicycle with an electric motor that:

- (a) has a power output of not more than 750 watts;
- (b) has fully operable pedals on permanently affixed cranks;
- (c) is fully operable as a bicycle without the use of the electric motor; and

(d) is one of the following:

(i) an electric assisted bicycle equipped with a motor or electronics that:

(A) provides assistance only when the rider is pedaling; and

(B) ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour;

(ii) an electric assisted bicycle equipped with a motor or electronics that:

(A) may be used exclusively to propel the bicycle; and

(B) is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour; or

(iii) an electric assisted bicycle equipped with a motor or electronics that:

(A) provides assistance only when the rider is pedaling;

(B) ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour; and

(C) is equipped with a speedometer.

41-6a-1115.5. Electric assisted bicycles -- Restrictions -- Penalties.

(1) Except as otherwise provided in this section, an electric assisted bicycle is subject to the provisions under this chapter for a bicycle.

(2) An individual may operate an electric assisted bicycle on a path or trail designated for the use of a bicycle.

(3) A local authority or state agency may adopt an ordinance or rule to regulate or restrict the use of an electric assisted bicycle, or a specific classification of an electric assisted bicycle, on a sidewalk, path, or trail within the jurisdiction of the local authority or state agency.

How are they defined?

Utah Code

- As bicycles
- Class Definitions (I,II,III)
- Local jurisdiction ability to regulate use

How are they managed now?

PCMC Code (timeline)

2014-15 Pilot Project

- Public discussion/Survey Information
- Alternative Transportation/Recreation

2016 Ordinance

Definitions:

- Allowance on Pathways 8' wide or greater and Natural surface trails 5' wide or greater
- Prohibited on other natural surface trails-singlet-rack
- Exception for mobility disabled users
- Class III distinction



- 10-1-4.5 Non-Motorized Trail Use

A.DEFINITIONS.

1.“Multi-Use Pathway” means a way or path no less than eight (8’) feet in width that has a surface of concrete or asphalt and is separated from the roadway by an open space, a curb or other barrier.

2.“Natural Surface Trail” means a way or route with a surface other than concrete or asphalt, which serves the primary purpose of passive recreational use, such as hiking, mountain biking, snowshoeing, cross-country skiing and equestrian activities.

3.“Power Driven Mobility Device” means any mobility device powered by batteries, fuel, or other engines, that is used by individuals with mobility disabilities for the purpose of locomotion, including electric personal assistive mobility devices, electric-assisted bicycles, electric-powered foot scooters, tracked mobility chairs or tricycles that are designed to transport a single individual with a disability.

B.PROHIBITION.1. It is unlawful to operate any motor vehicle, motor driven cycle, motorcycle, mini motorcycle, motor scooter, motor bikes, snowmobiles, full sized all-terrain vehicle, all-terrain vehicle, off highway vehicle, low speed vehicle, moped, electric assisted bicycle or golf cart on a natural surface trail with the following exceptions:

a.This prohibition shall not apply to persons with mobility disabilities who choose to use a Power-Driven Mobility Device, which is designed to transport a single individual with a disability as a substitute for walking and or biking unless prohibited by a designated traffic control device.

b.This prohibition shall not apply to motorized or self-propelled equipment, including electric assisted bicycles, used for maintenance or events as designated by the local highway authority. Emergency vehicles are also exempt from this provision.

c.This prohibition shall not apply to Class I and Class II electric assisted bicycles on natural surface trails, greater than five (5) feet wide, which have been identified as an official transportation corridor by the local highway authority. Additionally, the allowance of electric assisted bicycles shall be designated as such by a traffic control device.

2.It is unlawful to operate any motor vehicle, motor driven cycle, motorcycle, mini motorcycle, motor scooter, motor bikes, snowmobiles, full sized all-terrain vehicle, all-terrain vehicle, off highway vehicle, low speed vehicle, moped, Class III electric assisted bicycle or golf cart on a multi-use pathway with the following exceptions:

a.This prohibition shall not apply to persons with mobility disabilities who choose to use a Power-Driven Mobility Device, which is designed to transport a single individual with a disability as a substitute for walking and/or biking unless prohibited by a designated traffic control device.

b.This prohibition shall not apply to motorized or self-propelled equipment, including electric assisted bicycles, used for maintenance or events as designated by the local highway authority. Emergency vehicles are also exempt from this provision.

C.PENALTY. Any person violating the provisions of the Ordinance shall be guilty of a Class B misdemeanor.

D.ENFORCEMENT. The Park City Police Department, upon notification shall have authority to investigate violations of this section and issue citations

Reference Associations & Peer City

Bureau of Land Management (BLM) and National Forest (USFS).

E-bikes are classified as motorized vehicles and are only allowed on designated motorized trails.

Peer City-Boulder Colorado

Boulder, Colorado, the city in which Park City emulated its original e-bike pilot project is in the process of evaluating possible changes to e-bike use on trails and pathways:

<https://www.bouldercounty.org/open-space/management/e-bikes/>

Draper City, Utah

Ordinance allows for Class I e-mtbs on natural surface trails

International Mountain Bike Association

2010: Recognized but did not want mountain bikes and e-mtbs grouped into a single category due to the (non-motorized/motorized aspect)

<https://www.imba.com/sites/default/files/motorized%20position-IMBA%202010.pdf>

2015- 2017: Recognizing and supporting e-mtb if local land managers, stakeholders, etc. support.

<https://www.bikemag.com/news/imba-updates-e-mtb-position/>

2019: Supporting e-mtb use but caveat of they need to be regulated differently.

IMBA's eMTB position (updated 2019): Access to natural surface trails for traditional non-motorized mountain bikes is critical to the future of our sport.

As technologies evolve, we understand the need to examine access for Class 1 eMTBs and the unique characteristics they possess compared to traditional mountain bikes.

We support trail access for Class 1 eMTBs and support shared use on trails as long as access is not lost or impeded for traditional mountain bikes. IMBA recommends Class 1 eMTBs be managed independently from traditional mountain bikes and we encourage land managers to develop separate regulations. IMBA will continue to engage all stakeholders on this issue in an effort to reach outcomes that best suit all users.

Public emails/Input

2019 Basin Recreation/PC Recreation Survey-

Open Comment Section

- In support of e-bike accessibility
 - “Please....allow (pedal-assist) e-bikes on all trails. Really, what's the big deal?”
 - “Approve pedal assist bikes for trails.”
 - “Paved trails and restrooms. The current system is awesome, but needs to continue growing to accommodate the growing community. We also need a safer road crossing for the Rail Trail at 248; a paved trail connecting Rasmussen to the I-80 underpass near the Silver Creek Water Reclamation facility; a paved trail along Richardson Flat Road from Park City Heights to the 248 underpass to Round Valley; a paved trail from Summit Park to the mouth of Parleys Canyon; and allowing e-bikes on all paved trails.”
 - “You NEED to allow CLASS 1 E-Bikes on ALL mountain bike trails, Is silly that ALL neighboring areas except Park City allow them. They are the future and will be the standard for tourism growth in the mountain biking segment. Pull your heads out and stop being a bicycle bigot! IMBA AGREES!!”



- “We need more directional trails for sure. You wont be able to shut out all E bikes in the future and if we don't have directional trails it will be a disaster. It is already dangerous around all blind corners...”
- “We need to build trails where it is legal to ride e-mtb. E-bikes are a thing. Failing to legalize and regulate ebiking on trails will lead to e- bikes being ridden underground on trails that are unfit for ebikes”

- In support of e-bike regulation
 - "Great job out there, most important thing right now is also provide safe ways to ride the trails with the increased e-bikes and mountain bikers, need to find ways for everyone to understand how to properly ride the trails. Or you need to find ways to monitor or police the trails in a safe manner. There has been increasing talks of individuals, especially e-bikers, going too fast or utilizing the trails in an unsafe manner."
 - "The McLeod Creek Trail from city limits going south is overrun by fast bikers-- especially e-bikes. We need a walking trail alternative before someone is seriously injured."
 - "no e bikes on any trail other than paved"
 - "Keep the e-bikes off the singletrack."
 - "Although the question was not asked, I think it would be a huge mistake to allow E bikes on the single track trails. Keep the trails non motorized. Allowing E bikes would make already crowded trails more crowded. Plus if I am peddling, no way should I have to yield to an E bike coming up behind me. Don't ruin the mountain bike experience by allowing these e bikes on the single track. If you can't make up a climb peddling then get off your bike and walk, stick to easier trails, or use the lifts. Hikers and bikers can co exist but no E bikes! E bikes are ok on paved bike paths only."
 - "No E-Bikes on dirt single track"
 - "1. Thanks for all the hard work that you do. 2. I really don't want e-bikes or any other motor vehicles on non-motorized singletrack. Please maintain these rules and dedicate resources to enforcement."
 - "Getting sick of seeing e-bikes. Why is the sheriff not writing tickets for this?"
 - "Off leashed dogs and e-bikes are a safety issue for bikers, walkers and runners and the rules are not being enforced."
 - "Like the idea of a few hiking only trails, a number of directional trails, a very FEW trails for electric bikes, and a few mountain bike only trails. Also thinking bells on mountain bikes should be strongly encouraged (mountain biking is my favorite, but I respect hikers and they seem to like bells on bikes)."
 - "I believe e-bikes are very dangerous on gravel paths to other users. At least more signs PLEASE!"
 - "I think that it's fine for cyclists and pedestrians (runners or dog walkers) to use the paved trails, but at the very least, the cyclists need a bell on their bike! They always zoom right past me, often without even saying anything and it scares the living daylights out of me and my dog. Someone could get seriously hurt! I think that e-bikes are ok on paved trails as long as they have a bell, know how to use it and don't go too fast."
- "I would like to see better signage at every trail to how to use the trails (right of ways, off leash rules, e-bikes prohibited, etc.)."

Staff Recommendations:

1. **Public Input**- Provide for public comment (if time allows at Mayor's discretion)
2. **Community Input**- Procure and provide for a public survey specific to Class I E-MTBs use on single-track.
3. **Specific to recent input/requests**- explore legal and resource parameters associated with a permit (or similar) system for e-mtb use on natural surface trails specific to the following user groups:
 - a. Users with mobility disabilities consistent with the current ordinance.
 - b. Users older than a certain age (to be determined).
4. **Pilot Project**- Based on survey results, identify possible areas or natural surface trails, which might be considered for an e-mtb pilot project.

Old Town Access & Circulation Update

Jenny Diersen
Jonathan Weidenhamer
Alexis Verson

Johnny Wasden, Corey Legge, Mindy Finlinson, Police Department

Overview

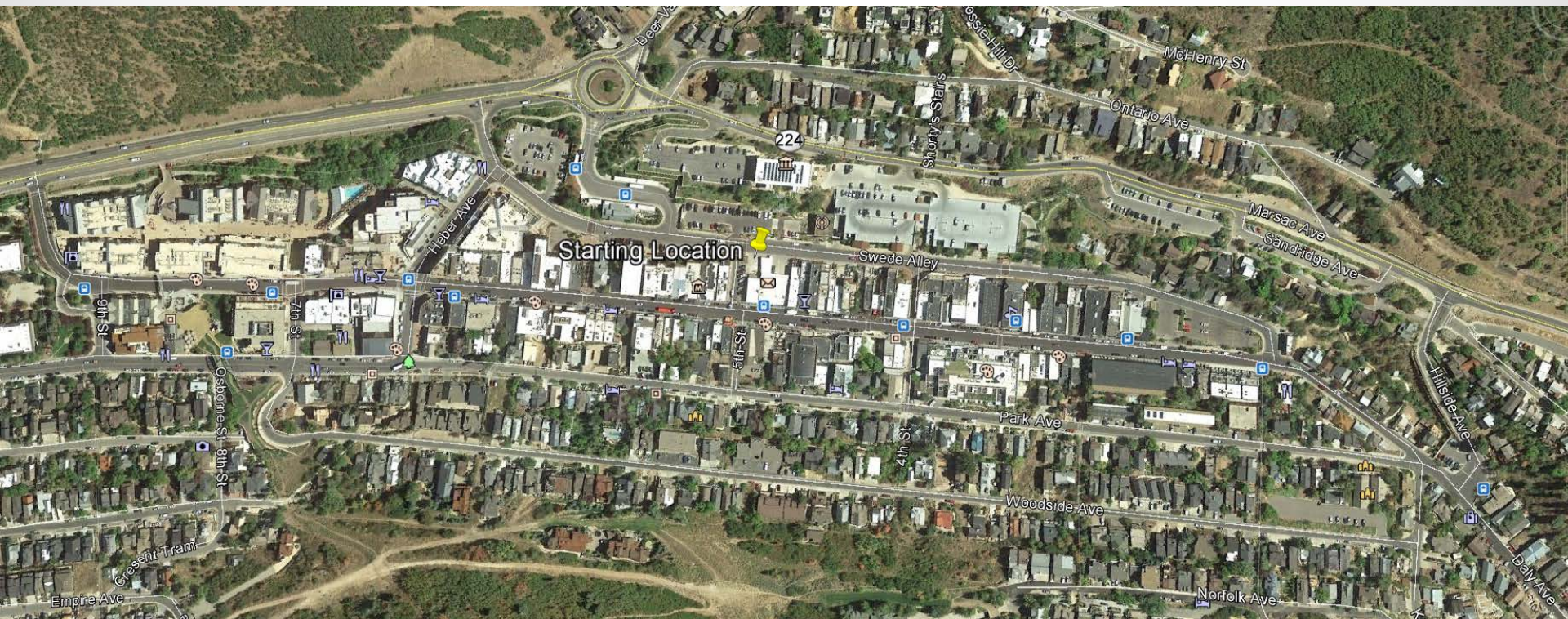
- Ground Rules
- Council goal
- Squeeze Balloon
- Recommended Projects
 - Non-Invasive
 - Specifically
- Projects not recommended (including, not widening...)
- What's new (actually old)?
 - CC intent in 2009 (residential, intent to revisit as needed)
 - Public Safety recommendations, #trips
- Additional Details
 - Stakeholder Engagement
 - Uphill lodging properties contributions & voluntary offers to reduce impacts
 - Area of consensus – Additional way finding opportunities, value of Shuttles
 - Commercial Vehicle Licensing & Drop & Load Zones
 - AD HOC & Taxi Input

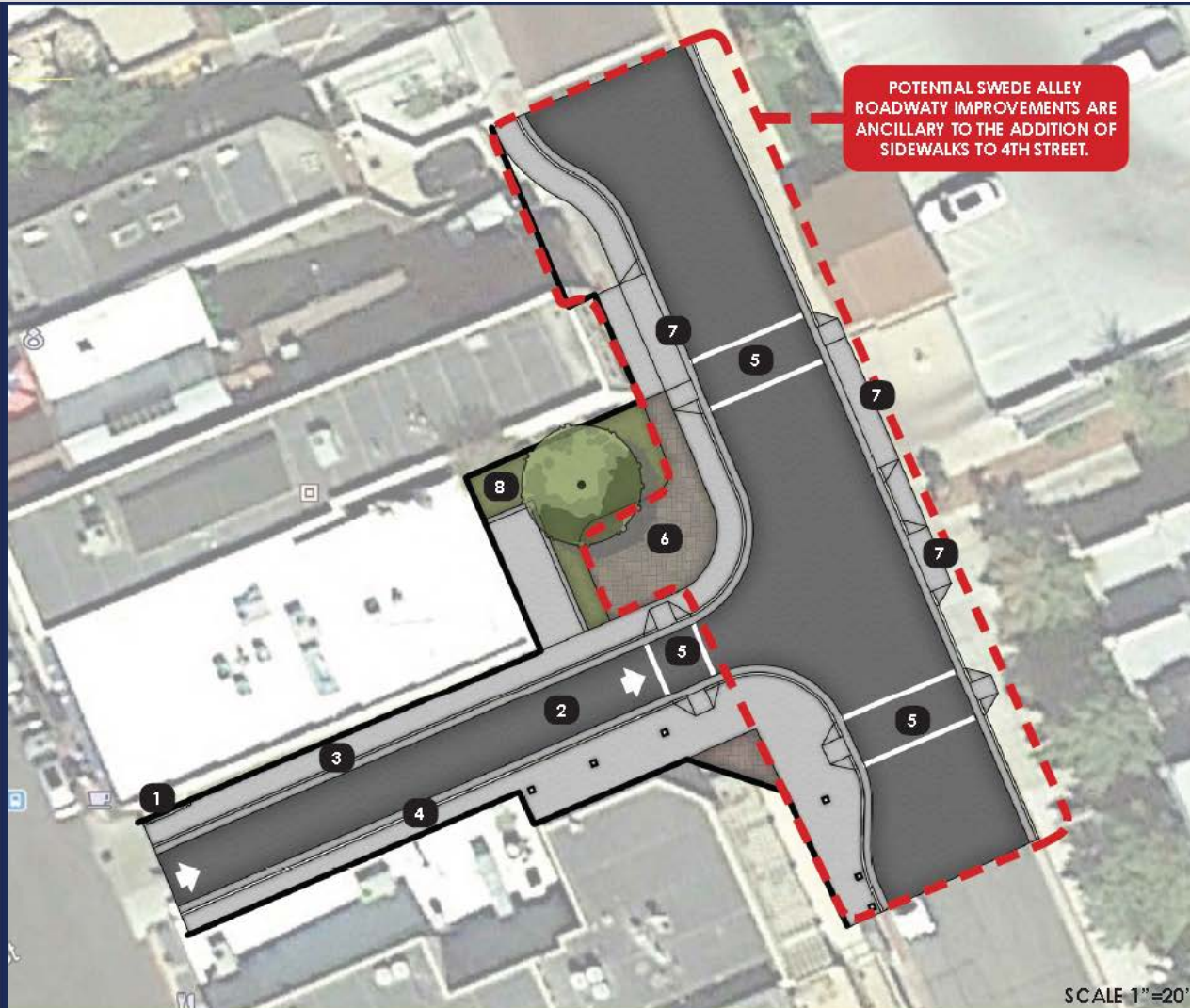
Recommendations

Item	Option	Status/ completed by:	Exhibit
In Progress			
1	Hillside Tier 1 improvements -6/8 pjts done. 7)Applied for UDOT sign permits. 8)Google Maps unclear	9/1/2019	B
2	Hillside Tier 2 improvements -2/3 pjts done. Raised intersection at bottom Hillside, is in progress.	10/15/2019	B
Ongoing			
3	Ongoing implementation of Specific Event Mitigation Plans	ongoing	F
4	Ongoing Transportation Mitigation & Circulation Summer 19 Projects	in progress	B
Recommended			
5	Comprehensive Downtown Circulation & Access Study	8/1/20	
6	Establish Commercial Vehicle (CV) Permit for shuttles & For Hire vehic.	9/1/19	H
7	Establish CV only drop & load spaces mixed through out downtown 5 -12 pm	9/1/19	H
8	Lodging Voluntary Trip Reductions (combo of "preferred" & "middle ground")	9/1/19	I
9	Additional wayfinding opportunities to retain commercial vehicles	12/15/19	E,F,G
Staff Seeks Specific Discussion			
10	Before 3 pm, No left turn onto Hillside from SR 224 & No Right turn onto SR 224 from Hillside	10/31/19	G
11	Expand use of each drop & load zone to the entire day, not just after 5 pm.	10/31/19	G
Not Recommended			G
12	Formal Classification of Hillside Avenue		
13	Widen Hillside		
14	Hillside one way west bound 5 pm - 12 pm		
15	Hillside one way west or east bound		
16	Signalized yield requirements on Hillside		
17	Curb cut at Bob Wells & stage commercial vehicles		
18	No commercial traffic on Hillside		
19	Establish weight limits for Hillside		
20	Limit access to summit county vehicles only		

Questions

- Is Council supportive of the ongoing and recommended next steps?
 - o Comprehensive Study
 - o Way finding
 - o Commercial Vehicle License and Permit Zones
 - o Voluntary Lodging Initiatives – Should we agree to those today?
- Does Council want to take stronger measures to reduce trips on Hillside, i.e. no left onto Hillside/no right onto Marsac before 3 p.m.?
 - o This would allow use during busier times, and not allow use during slower times.
 - o Additional signage would be needed on Chambers and Prospect.
 - o Would be inclusive of all traffic, not just commercial vehicles.
- If supportive of Commercial Vehicle changes, does Council support a consistent, all day CV Drop and Load and or short term parking area? Or prefer 5 pm to 12 pm?





DESIGN ELEMENTS

PEDESTRIAN ACCESS AND WAY FINDING WILL BE IMPROVED BY INTRODUCING BULB-OUTS AT THE INTERSECTION TO SLOW TRAFFIC, ADDING CROSSWALKS FOR SAFE ACCESS TO THE CHINA BRIDGE PARKING STRUCTURE, AND MAKING COMPLETE SIDEWALK CONNECTIONS ON BOTH SIDES OF 4TH STREET. 4TH STREET WILL ALSO BECOME A ONE WAY STREET (EASTBOUND) TO ALLOW FOR SIDEWALKS AND TO COMPLETE VEHICULAR CIRCULATION FROM THE ONE-WAY DIRECTION OF 5TH STREET (WESTBOUND).

- 1 EXISTING STREET ART (PRESERVE ACCESS)
- 2 12' WIDE DRIVE AISLE
- 3 5' WIDE SIDEWALK WITH 24" CURB AND GUTTER
- 4 4' WIDE SIDEWALK WITH 24" CURB AND GUTTER
- 5 CROSSWALK (PER CITY STANDARD)
- 6 PLAZA/GATHERING AREA
- 7 EXISTING DRIVEWAY TO REMAIN
- 8 LANDSCAPE AREA

OLD TOWN PEDESTRIAN IMPROVEMENT PROJECTS



King Rd



SCALE 1"=20'

PERMANENT DESIGN ELEMENTS

IF IT IS DETERMINED THAT PERMANENT DESIGN SOLUTIONS ARE DESIRED AT THE BASE OF HILLSIDE DRIVE, A COMBINATION OF RAISED ISLANDS (MOUNTABLE OR LANDSCAPED), PATTERNED AND COLORED CONCRETE (INTEGRAL OR THERMOPLASTIC COATED), SIGNAGE, AND STRIPING ARE RECOMMENDED. THERE IS ALSO AN OPPORTUNITY TO INCREASE THE HARDSCAPE AREA ADJACENT TO THE ROUND-A-BOUT AND ADD A TROLLEY/CONCIERGE LOADING AREA.

- 1 RAISED CENTER ISLAND (LANDSCAPE, OR MOUNTABLE CONCRETE)
- 2 PATTERNED AND COLORED CONCRETE ROUND-A-BOUT
- 3 CONCRETE PLAZA/GATHERING AREA/TROLLEY PICK-UP
- 4 BULB-OUT WITH LANDSCAPE AREA
- 5 NEW WAY-FINDING SIGNAGE DIRECTING TRAFFIC BACK TO MAIN STREET
- 6 EXISTING SIGN TO REMAIN
- 7 EXISTING PARKING LOT

**A Comparison of Environmental Impacts from
Mountain Bicycles, Class 1 Electric Mountain
Bicycles, and Motorcycles:
Soil Displacement and Erosion on Bike-Optimized
Trails in a Western Oregon Forest**



PREPARED FOR: Bicycle Product Suppliers Association

PREPARED BY: The International Mountain Bicycling Association
Trail Solutions Program
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Abstract

In the fall of 2015, under contract with the Bicycle Product Suppliers Association (BPSA), with counsel from a field of recreation management experts, and through a review of existing studies of erosional impacts from trail users, the International Mountain Bicycling Association (IMBA) conducted a scientifically controlled field study designed to measure relative levels of soil displacement and erosion resulting from traditional mountain bicycles, electric mountain bicycles (eMTBs), and traditional off-road motorcycles (i.e. dirt bikes). The observations were compiled in controlled environmental conditions, with each type of bike making multiple passes on separated sections of the same trail within a single test site.

IMBA developed these hypotheses for this small initial study:

- Soil displacement and erosion caused by mountain biking will be consistent with existing studies showing relatively low impact as with other types of non-motorized travel on this type trail (a bike-optimized trail also considered a sustainable trail) and this set of local conditions.
- Soil displacement and erosion from Class 1 eMTBs will likely fall somewhere between those caused by mountain bikes and motorcycles. It is expected that they will much more closely resemble those of mountain bikes.
- It is expected that Class 1 eMTBs may lead to greater soil displacement under certain conditions, such as through turns, including bermed turns; on ascents and descents; and where there are abrupt changes in trail conditions.

Results from the field experiment show that, under this set of conditions, soil displacement and tread disturbance from Class 1 eMTBs¹ and traditional mountain bikes were not significantly different, and both were much less than those associated with a gasoline-powered motorcycle.

Understanding the potential resource impacts of trail-based recreation is a necessary and important first step for formulating management strategies. This is especially important for new types of recreational pursuits, such as the fast emerging power-assisted vehicles like eMTBs. Additional research is needed to further assess the range of environmental and social impacts for successful eMTB use on public lands.

Mountain bicycling is a solely muscle-powered activity, and is thus regulated as a non-motorized use, along with hiking, trail running, and horseback riding. eMTBs are not entirely muscle-powered. IMBA recognizes that eMTBs, particularly Class 1 eMTBs, are substantially different from other motorized uses, and may warrant a separate category and new management strategies. IMBA does not have an advocacy interest in this Class 1 eMTB study, but is leading this study

¹ A "Class 1 electric bicycle," or "low-speed pedal-assisted electric bicycle," is a bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.





as a respected partner of land management agencies; to further knowledge about recreational trails; and to inform future discussions with members, chapters, land managers, the bike industry, and other user groups.





Introduction

The emergence of electric bicycles, commonly known as e-bikes, is a rapidly growing component of the bicycle market in the US (MacArthur and Kobel, 2014). As a transportation option, they represent an opportunity to reduce vehicle use and emissions, as well as the physical barriers to cycling. For use on trails, they present similar opportunities to reduce barriers to cycling but, as a new use, present new challenges for trail management.

While already popular in Europe, the use of eMTBs is on the rise in North America, and their increased presence is sparking controversy within the trail user community. Electric mountain bikes are generally defined as motorized vehicles for the purposes of trail use on federal lands, with states and municipalities expected to make their own decisions.

All trail users affect the trail surface and surrounding environment, especially when trails are poorly constructed. Those impacts range from vegetation loss to soil erosion, and related water quality problems. However, there is no evidence that traditional mountain bicycling causes greater environmental impact than other recreational trail uses. In fact, current research suggests that mountain bicycling impacts are similar to hiking, and less damaging than equestrian and motorized users.

There have been no studies of the environmental impacts of eMTBs specifically, but there exist numerous studies on the impacts of both mountain bicycles and off-road motorcycles, which provide a basis for developing research protocols. One could speculate that the impacts of eMTBs on trails would fall somewhere between the two modes, but this is a rather wide span, particularly regarding soil displacement under certain trail conditions, e.g., turn exits, steep grades, and/or non-cohesive soils.

The lack of existing data may contribute to poor trail management decisions that may either unnecessarily ban eMTBs from trails or allow them where their impacts will be disproportionate to their use. An understanding of how eMTBs affect the environment and trail management is needed so that land managers and the communities that support them can make informed access decisions.

The purpose of this study was not to decide whether eMTBs should be regulated as bicycles or motorcycles, or whether they are appropriate for shared-use on non-motorized trails. These decisions are for land managers to make in consultation with their recreation community. This report provides an understanding of some of physical impacts to trails associated with this use, and how these might differ from those associated with traditional mountain bicycles.

What is an eMTB?

A Class 1 eMTB is an e-bike that can be pedaled under human power alone as well as pedaled with the assistance of a battery-powered electric motor. eMTBs are capable of and primarily designed for off-road use, with wider, lugged tires, a sturdier frame, and front or dual suspension





systems. State traffic codes and regulations apply to transportation routes (e.g. streets and bike paths) only and have no bearing on recreational routes (e.g. singletrack trails), so it is up to land management agencies at each level of government to define their own rules and regulations regarding eMTB use.

The current definition of eMTBs defines them as motorized vehicles for the purposes of recreational trail use on federal lands, with states and municipalities looking to federal agencies for guidance. However, states and municipalities generally have greater flexibility in defining trail access than federal agencies.

What's Needed

An understanding of how eMTBs affect the environment and trail management is needed so that land managers and the communities that support them can make informed decisions about trail design, construction, and management. In order to achieve a better understanding of the impacts of eMTBs on the trail landscape, several factors need to be studied:

- **Test Riding:** Comparison of eMTBs alongside mountain bicycles and motorcycles helps understand how eMTBs perform and are used on trails, what the experience is, and how that might affect other trail users.
- **Test Trails:** It is likely that impacts to trails are somewhere between mountain bikes and motorcycles, but this is unknown. Test trails are needed to understand and measure the effects on trails directly and to the surrounding environment. Future efforts should focus on developing and testing eMTB-specific trails.
- **Special considerations for trail design, construction, and maintenance**
 - Grade, turns, jumps, and trail direction are some of the trail design and management characteristics that could be affected.
 - Weight: eMTBs are considerably heavier than mountain bicycles but as technologies improve, weight may become less and less of a factor and may ultimately be indistinguishable from regular mountain bicycles.
 - Ascending trails: eMTBs make ascending even very steep and technical trails easier. Power and ability to keep weight over rear wheel can help to maintain traction.
- How the trail experience is similar to and differs from mountain bicycling

Empirical study is the best way to understand the impacts and make reasonable assertions regarding environmental and social effects.

Where to Start

There are a host of potential environmental impacts to the landscape from any trail user, from soil erosion to the spread of invasive species and wildlife impacts. For this initial study, it was important to select a project suitable for the scope and that would provide meaningful initial data





for future studies. Soil displacement and erosion were selected as the best choice for this first small-scale study.

"Soil erosion is the single most important, managerially significant trail degradation indicator." (Jewell & Hammitt, 2000)

IMBA's Role in Studying eMTBs

IMBA has an interest in continuing to deliver best practices in trail construction and management. IMBA does not directly gain from this study. A cursory look at IMBA's eMTB user survey, along with the comments on blog posts and magazine articles, suggests that IMBA risk the ire of a share of its members in engaging in this study.

While eMTBs are motorized, they most closely resemble traditional mountain bicycles and have the potential to impact mountain bicyclists more than other users. As such, IMBA has an obligation to provide information to land managers, its members, and trail communities in managing and creating experiences appropriate for this evolving use.

As the leader in trail design, construction, and management, IMBA possesses the requisite set of skills to provide technical assistance to study the effects of eMTBs on trails. Likewise, IMBA's role in providing user management resources to land managers makes it imperative that IMBA take a leadership role in identifying conflicts and opportunities presented by the advent and evolution of eMTBs.

Study Goals

The goals of the study are to:

- Further IMBA's overall knowledge base regarding trail design, trail construction, and environmental impacts related to mountain biking and other trail uses.
- Provide an objective analysis of the physical impacts of Class 1 eMTBs relative to traditional mountain bikes and traditional dirt bikes by measuring soil displacement after hundreds of passes on a controlled course.
- Gather information regarding possible social impacts associated with Class 1 eMTBs.
- Provide land managers with data and analysis to assist them in making informed decisions regarding appropriate access.
- Create a baseline of data about the impacts of Class 1 eMTBs, which will inform what types of additional studies are warranted.

Study Hypotheses

- Soil displacement and erosion caused by mountain biking will be consistent with existing studies showing relatively low impact as with other types of non-motorized travel on this





type of trail (a bike-optimized trail is also considered a sustainable trail) and this set of local conditions.

- Soil displacement and erosion from Class 1 eMTBs will likely fall somewhere between those caused by mountain bikes and motorcycles. It is expected that they will much more closely resemble those of mountain bikes.
- It is expected that Class 1 eMTBs may lead to greater soil displacement under certain conditions, such as through turns, including bermed turns; on ascents and descents; and where there are abrupt changes in trail conditions.





Study Area

The study took place on existing trails on Bureau of Land Management (BLM) lands in Northwest Oregon. The BLM and IMBA have a regional assistance agreement to cooperate in trail related planning, design, and research. The test trail sections were on low-use bike-optimized trails, designed and constructed using IMBA best management practices, with short sections of former extraction roads used to create short loops for each mode.

Topography of the test site is generally north-facing aspect with moderate slopes ranging from 20-50%, at elevations ranging from 2,100-2,300 feet (640-700 m). Average rainfall is 80 inches per year (203 cm), with a temperate climate characterized by wet winter and spring, and dry summer months. Soils in the area are well draining, comprised of volcanic Zygore gravelly loams, with parent material of volcanic ash over colluvium derived from basalt and andesite. (NRCS, 2016.) Prior to testing, soils were consistently very dry across the test site, the area having experienced lower than average spring precipitation.

The vegetation is typical of Western Cascade foothills, dominated by a Douglas fir-Western hemlock forest community, with Western red cedar, red alder, and big leaf maple also common. Understory is comprised primarily of Oregon grape (*Mahonia sp.*), salal (*Gaultheria shallon*), and sword fern (*Polystichum minutum*); with grasses and blackberry (*Rubus discolor* and *R. ursinus*) dominating along open roadbeds.



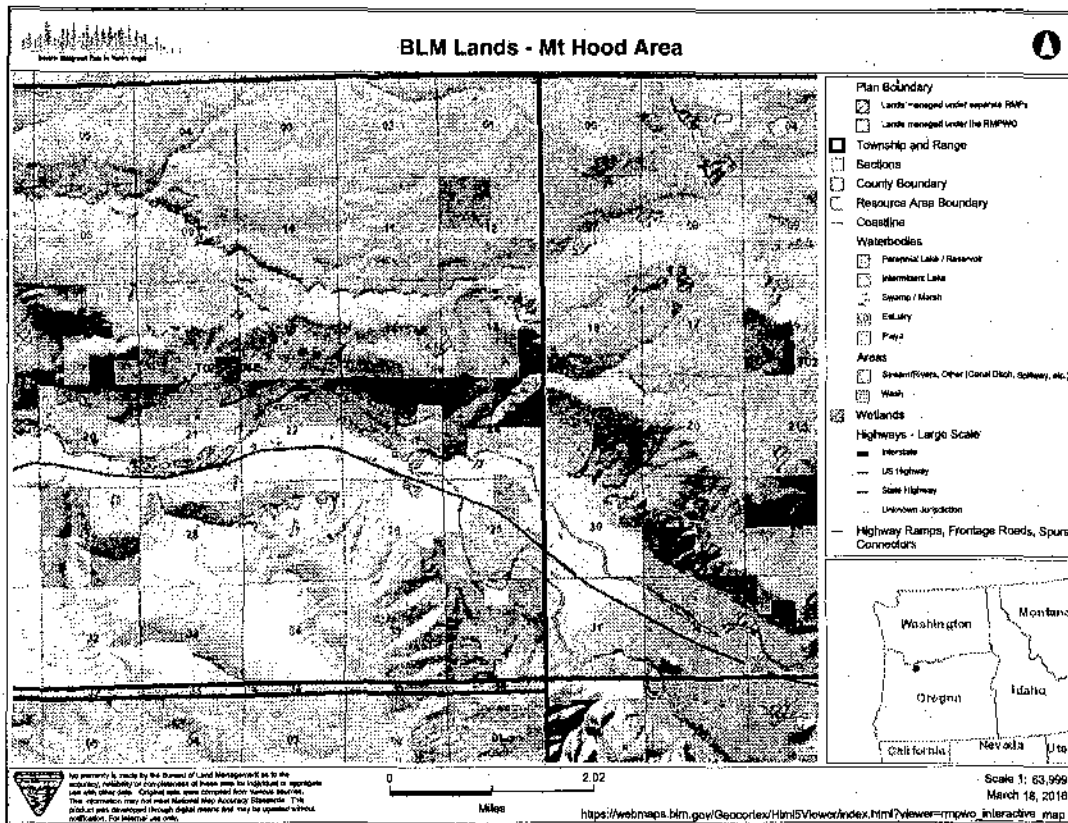


Figure 1. Study Area: BLM Managed Lands near Sandy, Oregon. BLM lands are shown in yellow.

Test Trail

The section of trail was selected for several reasons:

- It has several bermed turns and runs, connected by an old access road up the middle. This was used to break the trail into short loop sections that have similar conditions for testing of each mode efficiently.
- It sees relatively low use, compared with most other trails in the area, meaning closures during testing periods were accomplished with minimal impact to users.
- IMBA staff designed and constructed the trails and were familiar with the terrain and soil conditions.
- Vehicle access is restricted, so it was unlikely that any unauthorized users, especially motorized users, would access the trail.
- Trail users are accustomed to the sounds of motorized machinery (in this case, dirt bikes) and trail closures for trail construction.
- The test site was not visible from trail closure points at intersections.



The trail was closed during preparation and testing. Trail construction warning and temporary closure signs were placed at access points to this trail section and at key decision points within the trail system in order to restrict use outside of test laps. Given the potential for controversy regarding eMTBs among the mountain bicycling community, care was taken in not disclosing the location of the test site prior to and during field testing to avoid tampering with the test site.





Study Methods

Site Preparation

- Test trails were along the same section of trail, with no intersections.
- Test loops ranged from 1900 to 3100 feet (~600 to 950 m) in length, comprised of a contour singletrack descending section, with rollers, dips, and a bermed turn. Singletrack trail sections were connected into loops using an old roadbed. Each roadbed climb had two at-grade steep turns (20-25% grade) and a straight run at 12-15% grade.
- Ten permanent sample sites were set up on each loop to observe and record cross-sectional areas (CSA). Seven sample sites were established on each singletrack section, with three sample sites on each roadbed section.
- Sample sites were paired to match trail conditions for each loop (e.g. each had sample sites at comparable locations on bermed turns, road bed climbs, trail grade, tread texture, etc.). Sample sites were selected to capture a range of trail conditions.
 - Two plastic survey stakes (16" x 2") were placed at each sample location, perpendicular to the trail tread, 51.2 inches (130 cm) apart (the span of the CSA measurement tool), as measured from the center of the stake head. Stakes were placed into the ground so that the head was flush with the surface. Efforts were made to keep stake heads as close to level as possible, in some cases meaning that part of the head of the stake was countersunk.
 - Each stake was identified with the sample site number and a letter indicating whether it was on the uphill ("A") or downhill ("B") side of the tread. For roadbed locations, or where uphill and downhill was not obvious, the left side marker (as one faced the trail in the direction of travel for the test) was labeled as "uphill" ("A").
 - In order to ensure that the sampling location could be relocated in the event of tampering or other damage to the placement of the markers, survey marker locations were measured from reference tree markers (round pre-numbered aluminum tags, affixed to trees using aluminum nails). The distance (to 0.1 cm) and bearing to two tree markers was recorded for each survey marker location.

Controlled Variables

To the extent feasible given the study scope, effort was made to control for environmental, equipment, and rider variables. Environmental variables controlled across sample sites include:

- Soil type
- Soil moisture
- Vegetation type and canopy cover
- Level of use
- Tread texture and surface stability





- Trail feature (e.g. roller, dip, insloped turn)
- Trail grade

Equipment and rider variables controlled:

- Wheel size (for MTB and Class 1 eMTB)
- Tire make and model (for MTB and Class 1 eMTB)
- Tire pressure (for MTB and Class 1 eMTB)
- Rider skill and weight

Cross-Sectional Area "CSA" Measurements

- A CSA tool was created to allow for consistent, replicable measurements at each sample station (Figure 2). The CSA tool was placed at a fixed height on the uphill side, at 30 cm above the survey marker surface. The downhill side was adjusted in height until level along the horizontal.
- Three levels were monitored (1 horizontal axis and 2 vertical axes) throughout the sampling to maintain consistent measurements. Measurements were replicable to +/-1 mm at each interval.

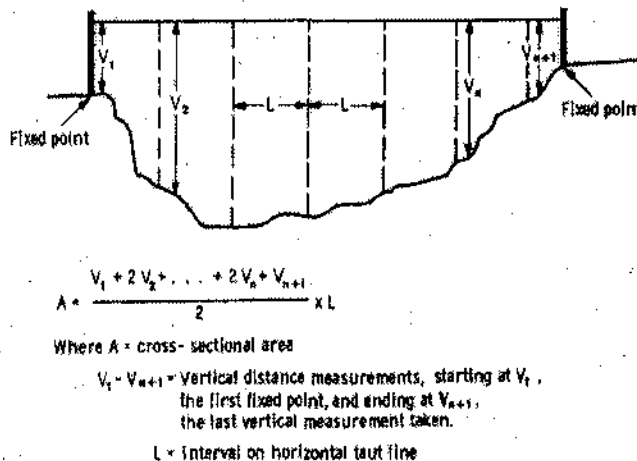


Figure 2: Layout of trail transect and formula for calculating CSA. (From: (Cole, 1983)

- CSA was measured at each sampling station. Vertical measurements were captured using the CSA tool at 10 cm intervals across the trail tread, up to 120 cm from the uphill side fixed marker.
- Measurements were taken at 0 (prior to test), 50, 100, 200, and 500 laps for Class 1 eMTB and mountain bike modes. Motorcycle mode was measured at 0, 50, 100, and 200 laps.
- Motorcycle laps were discontinued after 200 laps due to concerns regarding tread damage.



- All test riders were advanced to expert riders and were asked to ride as they normally would.
- CSA measurements and photos were taken at 0, 50, 100, 200, and 500 laps.
- Soil moisture was captured at each sample location twice daily during testing (in the morning and afternoon) using a HydroSense soil moisture meter (volumetric water content measured at 6-12 cm depth).
- Additional observations captured include disturbance area and condition class along the entire tread (not just at sample sites).



Figure 3. CSA measurements along the test trail loops at permanent sampling stations.

Condition Class Assessment ("CCA")

A CCA was used to assess the overall impact of experimental treatments along the full length of each trail segment (not exclusively at sampling sites). CCAs are commonly used in trail assessments to provide rapid, qualitative evaluations of site conditions. Classes were modified to reflect the range of disturbance conditions at this test site. (Jewell & Hammitt, 2000; J. L. Marion & Leung, 2001)

Condition Class Assessment		Depth (loose soil), cm	Trench depth, cm
CC1	no to minimal disturbance, not visibly different from start condition	<0.5	<0.5
CC2	minor disturbance, less than half tread width, noticable soil/litter movement	0.5-2	<0.5
CC3	moderate disturbance, greater than half of tread width, noticable soil movement, loose soil evident	2.0-4.0	0.5-2.0
CC4	high disturbance, loose soil common throughout tread, accumulation evident, some trenching/breaking tread evident	4.0-6.0	2.0-4.0
CC5	severe disturbance, trenching and piling of soil	>6cm	>4.0



Data Analysis

- Data preparation: Any soil movement or change in the tread surface is important to capture, not just soil loss. Loose soil is often pushed to the side such that no change in total CSA would be measured, but this loose soil is available for erosion. Total change in soil surface is used, whether an increase or decrease was recorded (absolute value of change from 0-lap measurement).
- For group pairs, t-tests (two-sample and Welch) were used to compare sample means. Analysis of Variance (ANOVA) was used to compare sample groups, with a Tukey Honest Significant Difference test (Tukey HSD) as a post-hoc test to determine significance for group pairs.
- Data were transformed as needed to meet test assumptions.
- Data analysis was conducted using R (The R Foundation, version 2.15.1).



Study Results

This small study represents a very limited set of site and user conditions, the results of which may or may not be replicated in other locations and test conditions. No broad conclusions should be made from the observations presented.

Change in Tread Surface

One way to visualize soil movement (displacement and/or erosion) is to show a profile of trail sample sites. In order to compare paired sites (sample sites with similar trail conditions: slope, grade, texture, and feature), only the change in tread surface is shown and absolute values are used so that both soil increases and decreases can be illustrated, as any soil movement was important to capture. This allows for side-by-side comparison of sample sites by trail condition. A few selected sample sites are shown below (Figures 4-6).

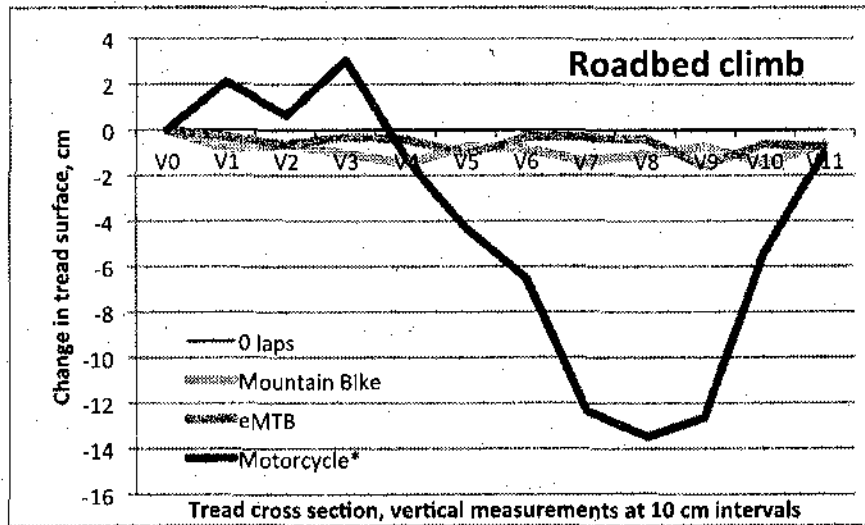


Figure 4. Trail profiles at 0 and 500 laps (200 laps for motorcycle). These show change in tread surface from the 0 lap measurement. For the motorcycle, you can see both trenching and piling of soil material as soil is displaced side-to-side and pushed downslope. These are from comparable sample sites on the roadbed.

The sample site illustrated in Figure 4 is for a short steep climb on a roadbed. Under these site conditions, the mountain bicycle and Class 1 eMTB show similar soil movement (low), while the motorcycle showed much greater soil displacement and erosion (large dip). The motorcycle engages a throttle for propulsion that moves the wheels even in the event of a loss of traction. This can lead to considerable soil movement, as is seen in Figure 4.

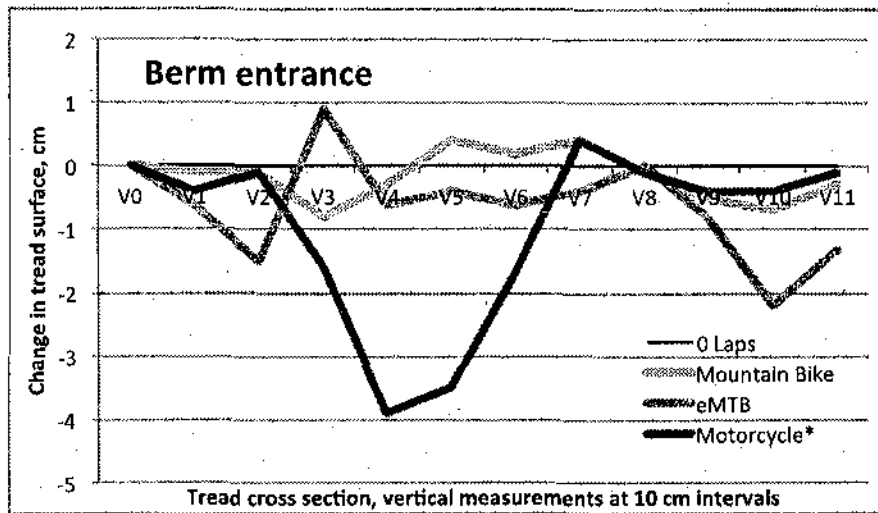


Figure 5. Trail profiles at 0 and 500 laps (0 and 200 for motorcycle). These show change in tread surface from the 0 lap measurement. Measurements taken at 10 cm intervals across each sample site, perpendicular to the trail. Greater soil displacement is seen for the Class 1 eMTB than for the mountain bicycle (some tread holes were observed forming), but much less than for the motorcycle. These are from comparable sample locations at the upper leg of a bermed turn.

The sample site illustrated in *Figure 5* is at a berm entrance, in the descending direction. Under these site conditions, the mountain bicycle showed the least amount of soil movement and the Class 1 eMTB showed slightly greater soil movement (both at 500 laps). However, both modes represent relatively little soil movement compared to the motorcycle (at 200 laps). As in *Figure 4*, there is a large dip in the tread, showing soil loss at the tread center from the motorcycle. All modes are likely braking while approaching a turn, though the inslope of the berm allows users to carry more speed than in other kinds of turns (e.g. switchbacks). In this situation, the combination of approaching speed and the mass of the vehicle could be affecting the soil movement differently: The Class 1 eMTB could allow users to approach the turn more quickly leading to greater soil movement upon braking and/or simply the weight difference (approximately 8 kg/20 lbs) could be sufficient to produce this result. Similarly, but on a much greater scale, the motorcycle can both approach the turn more quickly and has a much greater mass than either the Class 1 eMTB or the mountain bike (motorcycle weight plus protective equipment is roughly 250 lbs; engine output ranges approximately 100-200 times that of the potential output for this 350W Class 1 eMTB motor).

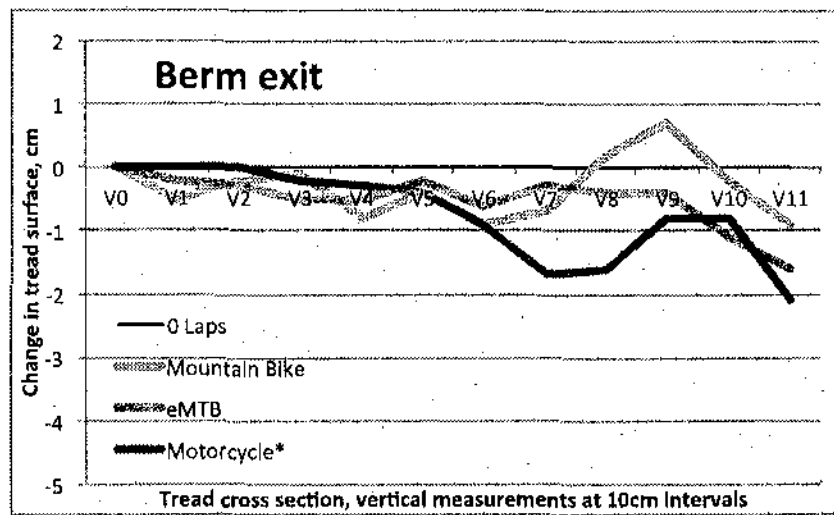


Figure 6. Sample site: Exit from bermed turn, descending direction

The sample site illustrated in *Figure 6* is for an exit from a bermed turn, in the descending direction. Under these site conditions, all modes show little soil movement. A typical wheeled user under these trail conditions would be simply rolling through the site, using little to no braking and no pedaling or throttle engagement. With a durable tread, as was the case for this study, no soil movement was measurable under these user conditions (simply rolling along the tread).

Class 1 eMTBs vs. Traditional Mountain Bicycles

Because the motorcycle was only tested to 200 laps, a direct comparison could not be made with the Class 1 eMTBs and mountain bicycles at 500 laps. However, this data point still provides valuable information for the study. While the average change in tread surface across all 10 sample sites was greater for Class 1 eMTBs than for mountain bicycles, there was considerable site to site variability, especially for mountain bicycle sites, as shown by the error bars in *Figure 7*. When comparing Class 1 eMTBs to mountain bicycles, a simple t-test could be used for analysis (*Table 1*).

Table 1. Comparison of average change in tread surface for Class 1 eMTBs and mountain bicycles at 200 and 500 laps using Two Sample t-test. There was no significant difference between the modes ($\alpha=0.05$) at either 200 or 500 laps.

pair	laps	t	p-value
eMTB-MTB	200	0.3638	0.7202
eMTB-MTB	500	-1.1122	0.2807



In considering average change in tread surface by mode after 200 laps, a difference between motorcycle impacts and those associated with Class 1 eMTBs and mountain bicycles is readily apparent (*Figure 8*). However, there is high variability among the motorcycle group of sample sites (note the span of error bars for "DB200"), as some sites experienced large amounts of soil displacement and rutting, while others showed little to no soil movement.

ANOVA and Tukey HSD Test

An analysis of variance (ANOVA) was conducted to determine if there was a significant difference between groups where more than two groups are compared, in this case: Change in tread surface for motorcycle, Class 1 eMTB, and mountain bicycle after 200 laps. Data were log transformed in order to meet test assumptions. The ANOVA showed that there was a significant difference between groups ($F=5.822$, $p\text{-value}=0.0079$), but this test cannot show which groups were different. The Tukey HSD Test is a post-hoc test, used following the ANOVA to identify which groups had significant differences. This test revealed that there was a significant difference between change in tread surface from motorcycles (DB) and that of both Class 1 eMTBs and traditional mountain bicycles (MTB) ($p=0.0173$ and $p=0.0169$, respectively; see *Table 2*). There was no significant difference between Class 1 eMTBs and mountain bicycles ($p=0.9999$).

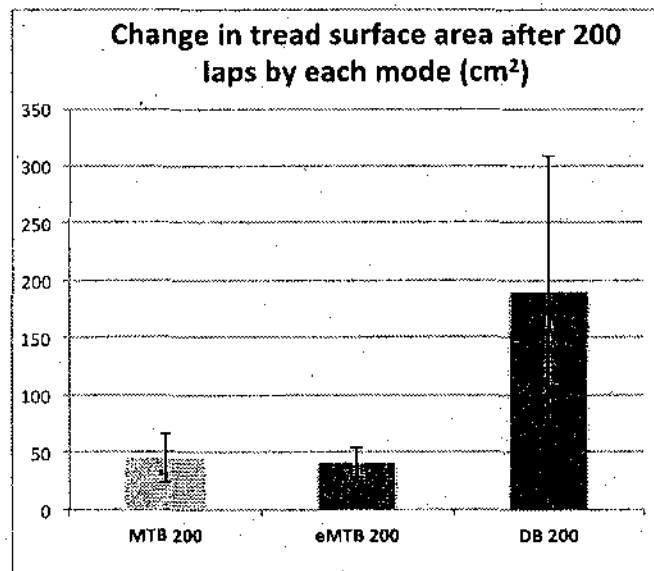


Figure 8. Average change in tread surface (absolute value) per sample site transect (cm²) after 200 laps. Error bars represent 95% confidence intervals.





Table 2. Tukey HSD Test results following significant ANOVA result. Fields highlighted in blue show significant results by mode pairs.

Mode pair	Difference in means	95% Confidence Interval		p-value (adjusted)
		lower	upper	
eMTB-DB	-0.9931	-1.8282	-0.1580	0.0173
MTB-DB	-0.9976	-1.8327	-0.1625	0.0168
MTB-eMTB	-0.0045	-0.8396	0.8306	0.9999

Condition Class Assessment

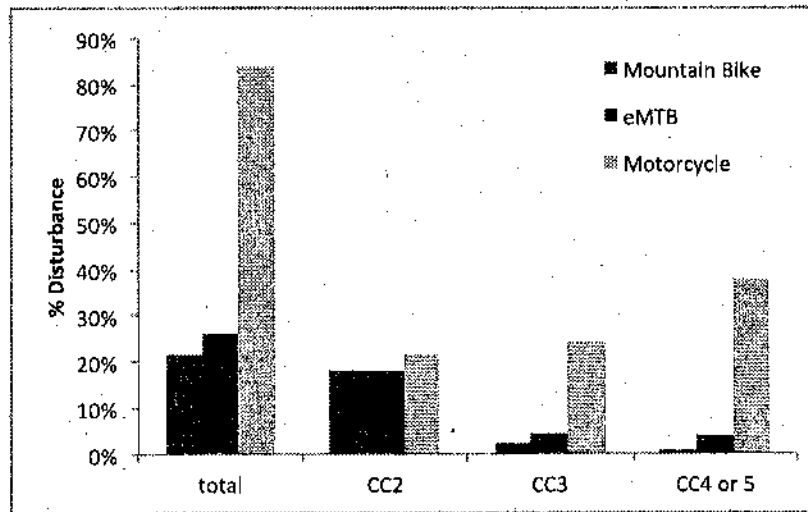


Figure 9. Tread disturbance by mode, after 500 passes. Total represents any disturbance (CC2 or greater; CC1 is no noticeable disturbance and is not included here).





Discussion

All trail users affect the trail surface and surrounding environment, especially when trails are poorly constructed. Those impacts range from vegetation loss to soil erosion, water-quality degradation, and disruption of wildlife. However, there is no evidence that mountain bicycling causes greater environmental impact than other recreational trail uses. In fact current research suggests that mountain bicycling impacts are similar to hiking, and less damaging than equestrian and motorized users. An emerging body of research suggests that when it comes to impacts to soils, water quality, and vegetation, the primary issue is not the type of user, but the way the trail is designed and constructed.

IMBA conducted a small trail impact study that measured soil displacement and erosion from traditional mountain bicycles, Class 1 eMTBs, and motorcycles under the same environmental conditions on separated sections of the same trail, within a single test site. Analysis of data from this small-scale field experiment showed support for the hypotheses. Some differences between the impacts of Class 1 eMTBs and mountain bicycles were observed, particularly at turns and grade changes. However, the soil displacement measured in this study was not significantly different (statistically) from that associated with mountain bicycles, and was much less than that associated with motorcycle use.

Electric-powered mountain bikes (eMTBs) are a new category of recreational use on public lands, a hybrid of muscle and electric power that falls between traditional motorized and non-motorized uses. Defining eMTBs as new category of recreation access will minimize impacts on access for mountain bikes and protect against an increase of motorized use on non-motorized trails.

Study Limitations

This was a small study, under a limited set of environmental and trail conditions, and user behavior. This study does not, and should not be interpreted to represent consensus on the environmental impacts of Class 1 eMTB. However, it is a first step in better understanding the physical impacts to tread surfaces from their use, and how these impacts may be similar to or different from other two-wheeled uses.

Environmental impacts are only part of understanding how a new use, like eMTBs, on public lands may affect the environment, user management, and experiences for other trail users. Social and regulatory factors may be of greater importance in determining appropriate use and should also be studied.

Access Implications for Land Managers

IMBA strongly recommends that trail management decisions for any recreational user have a foundation in science. The impact of mountain bicycling on trails and the environment has been a leading management concern since the activity's inception. Mountain bicyclists know acutely the experience of arbitrary decision-making based upon anecdotal observations of user behaviors





and environmental impacts. As a new use, eMTBs will likely face similar scrutiny.

Perception of impacts – both social and environmental – is an issue that Class 1 eMTBs face, in part because there are relatively few eMTBs currently on trails. Trail users and land managers have limited opportunity to observe and interact with this new use and may assume the worst in terms of impacts. Land managers should not just weigh environmental impacts, but should honestly address the social factors that also contribute to access decisions.

While the environmental impacts of a particular trail use are an important consideration in management, social and regulatory factors also play a critical role. For good or bad, access is not based upon a hierarchy of environmental impacts. Equestrian use has much greater environmental impacts than mountain bicycling, but it is managed quite differently for social, historical, and regulatory reasons. It is important to keep this in mind when evaluating this new use.





Conclusion

This study found that the impacts from Class 1 eMTBs and traditional mountain bicycles were not significantly different, while motorcycles led to much greater soil displacement and erosion. Observations suggest that Class 1 eMTBs may lead to more displacement under certain trail conditions. More research is needed before conclusions can be drawn regarding the environmental impacts of Class 1 eMTBs as compared with traditional mountain bicycles.

Understanding the potential resource impacts of Class 1 eMTBs is a necessary and important first step for formulating management strategies. Additional research is needed to further assess the range of environmental and social impacts for successful Class 1 eMTB use on public lands. IMBA's initial study suggests that, with conscientious management and attention to trail design, Class 1 eMTBs may have the potential to offer a beneficial use of public lands with acceptable impacts.





Appendix A: Throttle Observations: Mini Test

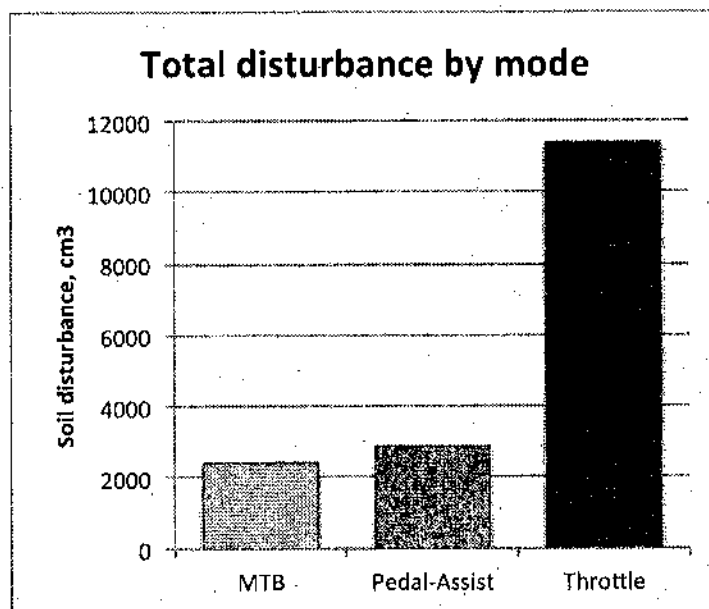
This was a very limited test to begin to understand the differences between pedal-assist and throttle eMTBs.

- Modes: MTB, pedal-assist eMTB, throttle-assist eMTB
- Pedal/throttle assist eMTBs at highest power setting
- Steep uphill: 40-45% grade over 4.5 m
- All modes start from full stop 4 m before grade change
- 50 laps each

MTB vs. Pedal-Assist: Greater area of disturbance, but less depth.

Throttle: Much greater area of disturbance, equal depth to Pedal-Assist.

- Most impact at crest of climb





Appendix B: Literature Review

A literature review was conducted in developing the methods for this study. While no studies have looked at the effects of eMTBs explicitly, there have been numerous studies of mountain bicycles and motorcycles, presumably encompassing the range of potential environmental impacts associated with eMTBs. Other studies characterizing soil displacement and erosion in general, regardless of use, also informed the study design.

- Wilson & Seney, 1994 – Erosion from experimentally applied mountain bicycling and motorcycles (also horses and hikers) on trails in Montana. Used existing trails, varying slopes, in wet conditions and dry. Applied rainfall to assess wet conditions and immediately following user passes to assess erosion. (Wilson & Seney, 1994)
- Thurston & Reader, 2001 – Impacts of experimentally applied mountain bicycling on vegetation and soils in a deciduous forest (also hikers). Not on existing trails, but on designated tracks on varying slopes; applied varying user passes (25 to 1000), then measured vegetation and soil compaction. Assessed recovery after 1 year. (Thurston & Reader, 2001)
- White et al, used point measurement of max incision and width in their observational study. Cessford (1995a) discussed ecological impacts and presented several astute observations, though the majority of his conclusions were derived from other forms of recreation, such as hiking and off-road motorcycling. His most notable inference was that mountain bikes will generate the most torque during uphill travel, but considerably less pressure on the trail in comparison to other users when moving downhill, although degradation is possible “in extremely wet conditions, on uncompacted surfaces, or due to poor braking practices” (Gordon R. Cessford, 1995; White, Waskey, Brodehl, & Foti, 2006)
- Existing mountain bicycle studies show greatest erosion at turns and on steep downhills. (Goefft and Alder, 2001; White, 2006). For motorcycles, turns are also an area of higher erosion, as are uphills. Check other citations for additional information. (Goefft & Alder, 2001; White et al., 2006)
- All uses have greatest potential to cause damage to soils and vegetation in wet conditions. (B. J. Marion & Wimpey, 2007)
- Olive & Marion (2009) – Variable CSA approach. Observational study, but methods useful. (Olive & Marion, 2009)
- Wallin and Hardin 1996 – trail erosion using rainfall simulator. Insufficient resources for this study, but worth exploring for a future study to test under varying soil moisture conditions. (Wallin & Harden, 1996)
- SA MTB study (Clement, 2010) – used CSA method to monitor and assess mountain bicycling trails in South Australia for Mountain Bike Australia. These trails were building using BMPs for mountain bicycling trails. CSA for 20 randomly placed points along each of two trails (under different soil and rainfall conditions). (Clement, 2010)





- USFS comparison of trail erosion evaluation methods ranked CC Assessments highest overall when combining training required, efficiency, accuracy, precision, and management utility. (Jewell & Hammitt, 2000)
- 2nd and 3rd ranked methods: census of erosional events and CSA (tied with Max Incision Post-construction). – CSA probably best for experiment versus an observational study. CSA –highest precision and accuracy, but low efficiency.
- Cross-Sectional Area Method: “Soil erosion is the single most important, managerially significant trail degradation indicator. The cross-sectional method is probably the most frequently used, replicable method for monitoring purposefully located trail segments. This method may also be applied to systematically sampled locations for monitoring entire trail systems. The erosion or deposition of soil can be measured with very high precision and accuracy with this method. it involves a number of assumptions, including ability to relocate the fix points precisely, reference line elevated above surrounding vegetation, the line is kept taut, a level is used for the vertical measurements, the taut line is repositioned the same height above the fixed points, vertical measurements are taken at the same interval, and the vertical measurements are taken starting from the same side. For these reasons, training is the single most important factor in the proper application of this method. Adequate training is costly and thus a major limiting factor for managers.” (Jewell & Hammitt, 2000)





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Evaluating Class 1 eMTB use on Park City trails

E-Bike Classification Overview

- 3 Classes of electrical assisted bicycles defined by Utah
 - effective March, 2016 with signing of S.B. 121
- Class 1
 - 750 watt max motor power; 20 mph speed cut off; no throttle
- Class 2
 - 750 watt max motor power; 20 mph speed cut off; throttles allowed
- Class 3
 - 750 watt max motor power; 28 mph speed cut off; no throttle

Current Utah regulation of E-bikes

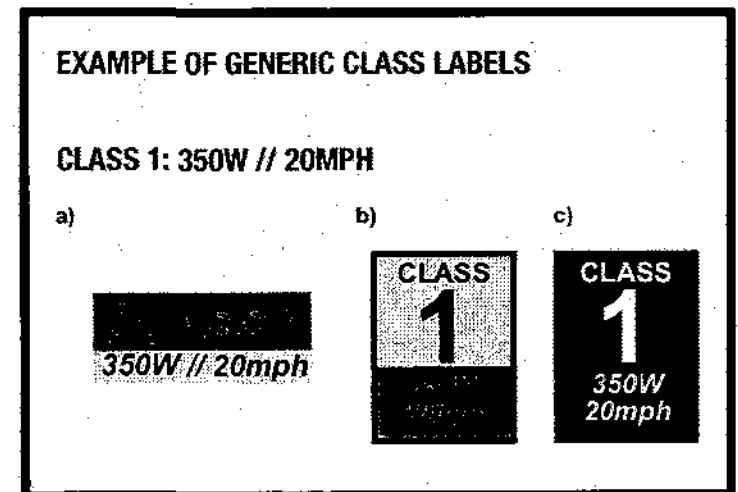
- With introduction of 3 Class system, Utah excludes e-bikes from definition of a “motor vehicle”
 - S.B. 121 – lines 253 through 258
 - (40) (a) "Motor vehicle" means a vehicle that is self-propelled and every which is propelled by electric power obtained from overhead trolley wires, but not operated upon rails.
 - (b) "Motor vehicle" does not include vehicles moved solely by human power, motorized wheelchairs, an electric personal assistive mobility device, or an electric assisted bicycle.

Current Park City regulation of E-bikes

- For trail use Park City municipal code categorizes all electric bikes the same, regardless of class, for any trail narrower than 5 feet wide
 - 10-1-4.5 Non-Motorized Trail Use
 - It is unlawful to operate any motor vehicle, motor driven cycle.... electric assisted bicycle or golf cart on a natural surface trail...
 - This prohibition shall not apply to Class I and Class II electric assisted bicycles on natural surface trails, greater than five (5) feet wide, which have been identified as an official transportation corridor by the local highway authority.

Class 1 electric assist mountain bikes (eMTB)

- Class 1 eMTBs are like traditional bicycles with fully operable pedals, but with a small motor that will only engage if the rider pedals
- Class 1 eMTBs have been shown* to have similar impact on natural surface trails as traditional mountain bikes.
- By law all manufacturers must apply a standard label specifying its class and wattage. This helps agencies identify e-bikes and where they are allowed.



* IMBA study in 2015

Benefits of allowing Class 1 eMTBs

- Allows people to mountain bike when they otherwise would not be able to due to physical fitness, age, disability, etc.
- Helps people of different skill levels/abilities to ride together
- Average Class 1 eMTB rider is no faster than the fastest mountain biker
- Maximum power of Class 1 eMTB does not exceed the maximum power output of human capability

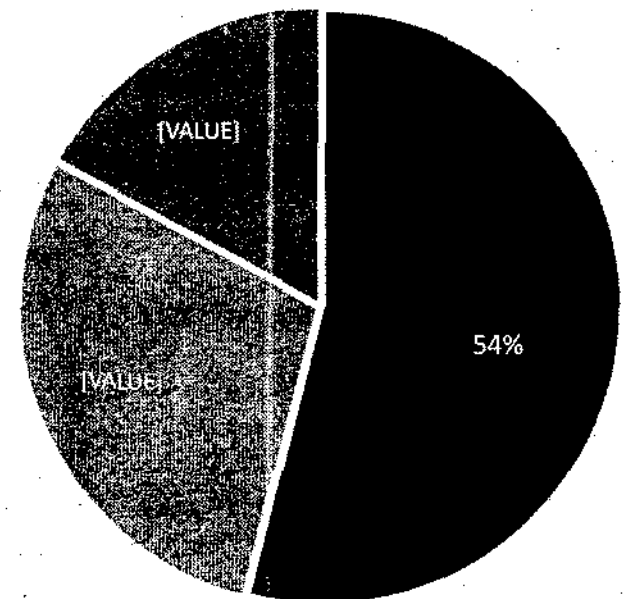
Successful Story of Class 1 eMTB

- Jefferson County Open Space now allows Class 1 eMTBS on all trails following successful pilot program
 - Began pilot program in 2018
 - 83% of feedback during pilot was positive or neutral

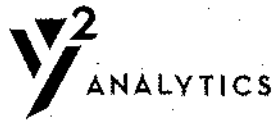
"Creating new regulations specific to Jefferson County that are different from those throughout the rest the state would create a confusion for cyclists using e-bikes to know and understand jurisdictional boundaries"

- Steve Durian, Jefferson County director of transportation and engineering

Feedback During 2017 Pilot



■ Positive ■ Neutral ■ Negative



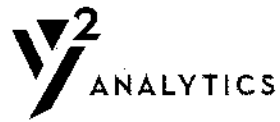
BASIN RECREATION & PARK CITY RECREATION 2019 COMMUNITY SURVEY

E-BIKES SUMMARY REPORT

- In total, 42% of scientifically sampled Basin & PC residents suggest that they would use new single-use trails in the region, and two respondents specifically mention designated e-bike trails as single-use trails of interest. Many other residents suggested that they would support single-use trails for biking in general.
 - In the open-access survey that was fielded after the completion of the scientific survey, an additional four respondents indicated that they would like to see single-use trails dedicated to e-bikes.
 - 28% of residents indicate that they would use commuter/transportation trails, 64% would use shared-use trails, and 38% would use new directional trails if these were available. Respondents indicating that they would use these types of trails were not asked to specify a use.
- 20% of residents would support separating trails by user types as a method for managing trail user conflicts (i.e. issues between bikers, hikers, e-bikes, dogs, etc.).
- In the funding allocation question, two residents suggested that they would budget Basin or PC Rec funding for e-bike trails and increased signage for e-bike accessible trails.
- In the general comments section at the end of both the scientific and open-access surveys, several residents offered comments related to e-bikes. These comments represented both demands for more e-bike accessibility and requests for increased restrictions on e-bikes.
 - In support of e-bike accessibility
 - "Please....allow (pedal-assist) e-bikes on all trails. Really, what's the big deal?"
 - "Approve pedal assist bikes for trails."
 - "Paved trails and restrooms. The current system is awesome, but needs to continue growing to accommodate the growing community. We also need a safer road crossing for the Rail Trail at 248; a paved trail connecting Rasmussen to the I-80 underpass near the Silver Creek Water Reclamation facility; a paved trail along Richardson Flat Road from Park City Heights to the 248 underpass to Round Valley; a paved trail from Summit Park to the mouth of Parleys Canyon; and allowing e-bikes on all paved trails."
 - "You NEED to allow CLASS 1 E-Bikes on ALL mountain bike trails, Is silly that ALL neighboring areas except Park City allow them. They are the future and will be the standard for tourism growth in the mountain biking segment. Pull your heads out and stop being a bicycle bigot! IMBA AGREES!!"



- "We need more directional trails for sure. You won't be able to shut out all E bikes in the future and if we don't have directional trails it will be a disaster. It is already dangerous around all blind corners..."
- "We need to build trails where it is legal to ride e-mtb. E-bikes are a thing. Failing to legalize and regulate ebiking on trails will lead to e-bikes being ridden underground on trails that are unfit for ebikes"
- In support of e-bike regulation
 - "Great job out there, most important thing right now is also provide safe ways to ride the trails with the increased e-bikes and mountain bikers, need to find ways for everyone to understand how to properly ride the trails. Or you need to find ways to monitor or police the trails in a safe manner. There has been increasing talks of individuals, especially e-bikers, going too fast or utilizing the trails in an unsafe manner."
 - "The McLeod Creek Trail from city limits going south is overrun by fast bikers-- especially e-bikes. We need a walking trail alternative before someone is seriously injured."
 - "no e bikes on any trail other than paved"
 - "Keep the e-bikes off the singletrack."
 - "Although the question was not asked, I think it would be a huge mistake to allow E bikes on the single track trails. Keep the trails non motorized. Allowing E bikes would make already crowded trails more crowded. Plus if I am peddling, no way should I have to yield to an E bike coming up behind me. Don't ruin the mountain bike experience by allowing these e bikes on the single track. If you can't make up a climb peddling then get off your bike and walk, stick to easier trails, or use the lifts. Hikers and bikers can co exist but no E bikes! E bikes are ok on paved bike paths only."
 - "No E-Bikes on dirt single track"
 - "1. Thanks for all the hard work that you do. 2. I really don't want e-bikes or any other motor vehicles on non-motorized singletrack. Please maintain these rules and dedicate resources to enforcement."
 - "Getting sick of seeing e-bikes. Why is the sheriff not writing tickets for this?"
 - "Off leashed dogs and e-bikes are a safety issue for bikers, walkers and runners and the rules are not being enforced."
 - "Like the idea of a few hiking only trails, a number of directional trails, a very FEW trails for electric bikes, and a few mountain bike only trails. Also thinking bells on mountain bikes should be strongly encouraged (mountain biking is my favorite, but I respect hikers and they seem to like bells on bikes)."
 - "I believe e-bikes are very dangerous on gravel paths to other users. At least more signs PLEASE!"
 - "I think that it's fine for cyclists and pedestrians (runners or dog walkers) to use the paved trails, but at the very least, the cyclists need a bell on their bike! They always zoom right past me, often without even saying anything and it scares the living daylights out of me and my dog. Someone could get seriously hurt! I think that e-bikes are ok on paved trails as long as they have a bell, know how to use it and don't go too fast."



- "I would like to see better signage at every trail to how to use the trails (right of ways, off leash rules, e-bikes prohibited, etc.)."

**Old Town Access and Circulation Update
August 15, 2019**

Additional comments to be included in Exhibit Jb Public Comment for the Record

**Jonathan Weidenhamer
Alexis Verson
Jenny Diersen**

Alexis Verson

From: Dennis McCormick <deroymac@gmail.com>
Sent: Wednesday, August 14, 2019 9:41 AM
To: Alexis Verson
Cc: Council_Mail
Subject: Safe pedestrian traffic

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Alexis,

I saw this on my news feed this morning, I'm not going to be able to attend your public meeting this afternoon but thought I would share this:

I live in the Line Condominiums, located at 555 Deer Valley Drive. Our approved Plat Map (Summit Country Entry No. 770803) called for our 22 unit's garbage collection to be facilitated from an on-site dumpster. A few years ago our HOA board removed dumpster which required owners to use garbage cans placed on pedestrian sidewalk. Last winter this greatly hindered Park City Public Works from removing snow from sidewalks which serves the only Park City sheltered bus stop on Deer Valley Drive and also our school bus stop. Pedestrians were forced into the street and many were almost hit by vehicle traffic.

Recently Republic Services quit issuing small garbage cans and many of our owners rather than trying to fit large cans in their garages just overfill garbage cans left on sidewalk including the bus stop's garbage can. These larger overfilled (see pic) garbage cans are also a hindrance to pedestrian traffic and are often left on sidewalk for days.

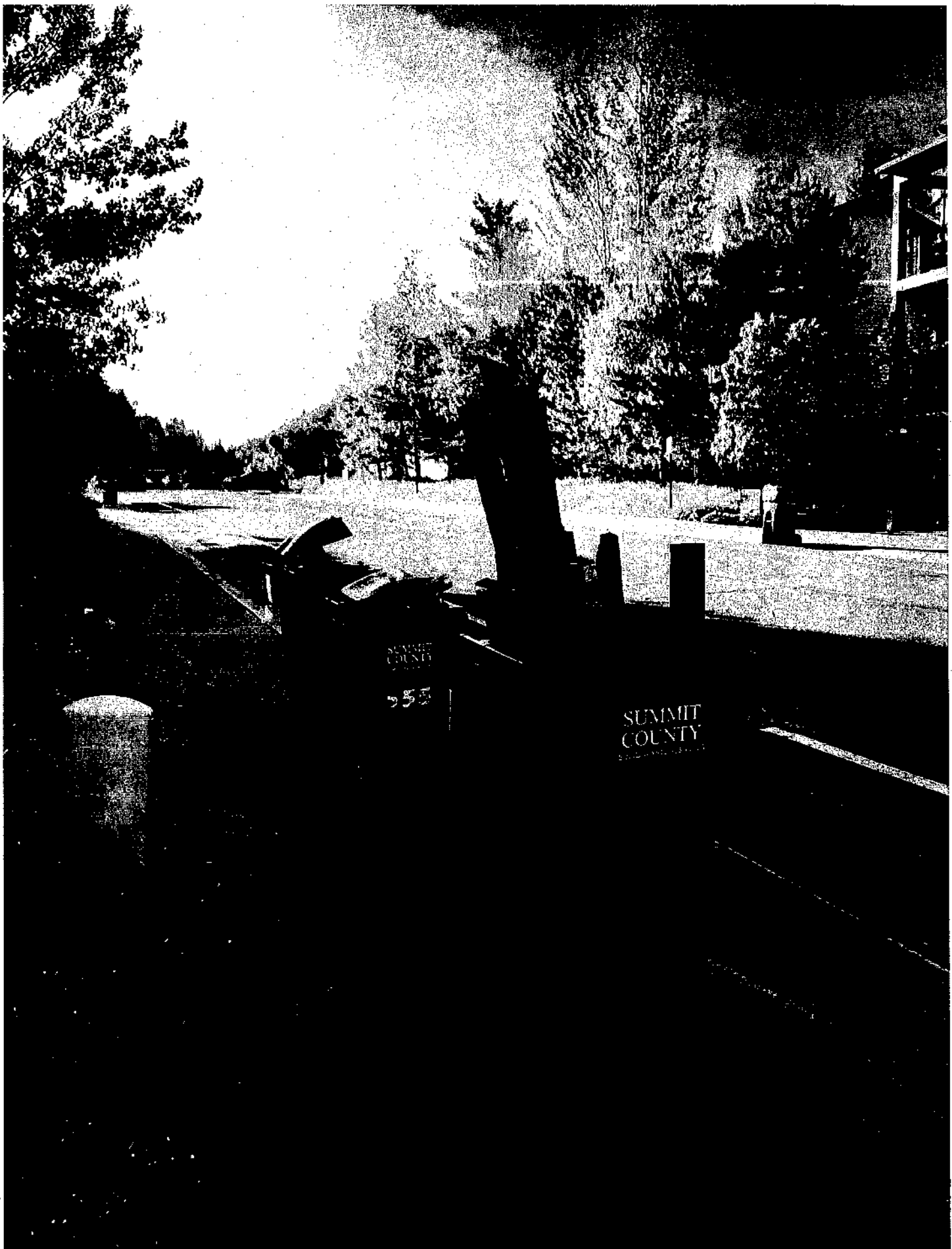
The pickup of all these individual cans by garbage truck also slows vehicle traffic on a very busy section of Deer Valley Drive.

The Line owners are petitioning to re-establish a dumpster as the means of garbage collection as described in the above mentioned official Plat Map. We have ten signatures so far but seem to be having problems getting more as it seems our Property Management Company and maybe some of the HOA board are against it.

Any help you could give would be greatly appreciated and will help make Park City more pedestrian friendly.

Thanks,

Dennis McCormick
555 Deer Valley Drive # 22
435-659-1407
deroymac@gmail.com



Alexis Verson

From: Laura Suesser <laura.suesser@gmail.com>
Sent: Wednesday, August 14, 2019 11:55 AM
To: Alexis Verson
Subject: More Stairs in Old Town

Follow Up Flag: Follow up
Flag Status: Flagged

I was out of town and unable to attend the recent forum on circulation in Old Town. I am writing to share some thoughts on some needs that I see.

We need more stairs connecting our Old Town Streets to encourage less driving and promote more walking.

Upper Old Town has stairs on nearly every block. We need the same in Lower/North Old Town to provide an easier, more convenient, faster pedestrian experience to access Main St, bus stops, trailheads, the resort base, the library, etc.

Development of nearly every Old Town Lot has continued without infrastructure improvements to accommodate pedestrians. Better pedestrian access throughout Old Town is also a public safety issue. Walking down Crescent/8th St from Empire is not safe. Installing 9th St stairs from Empire to Woodside would help address this glaring issue. We need to preserve our public rights-of-way (for access and utilities) and complete this much needed infrastructure. More stairs in OT is wholly consistent with the City's goals of walkability and easy access to public transportation and trails and is long overdue.

I propose at least the following: 9th Street stairs from Woodside to Empire. 10th Street stairs connecting Empire and Lowell. 12th St stairway from Lowell to Empire. Repair of the pedestrian path that passes under Town Lift to Crescent Tram and a connection up to Empire. A proper path and/or signage from 11th St to Poison Creek trail. Bike wheel rails down the sides of stairs to provide cyclists more direct access to neighborhood streets and trails without riding up Crescent/8th St.

Finally, the grating used on the existing OT stairs is very tough on dog paws and high heels. The grating tears the pads of dogs's paws. It also tears and destroys the leather on high heels. Alternative products with the same anti-slip benefits of the grating but without the cons may be available and would be preferable. We have to remember that this is a year-round resort community and the stairs should accommodate more than just ski boot traffic. And there are still plenty of year-round residents (and visitors) in Old Town that have pups!

Laura Suesser
laura.suesser@gmail.com
m: 435 210 1533

Sent from my iPhone

Alexis Verson

From: mark maziarz <mark@maziarz.com>
Sent: Wednesday, August 14, 2019 6:58 AM
To: Alexis Verson
Subject: Hillside Ave traffic

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Alexis,

We own a small yellow historic home at the bottom of Daly Avenue, right above the trolley turnaround at the top of Main Street.

We are not able to make the City Council meeting tomorrow night, but we wanted to relay our thoughts on the importance of not allowing any more traffic on Hillside Ave.

We read this section on the Old Town Access and Circulation page on the city's website:

- **Hillside Widening Cost Estimate** - A conceptual design (needed to produce a cost estimate) with high-level cost estimate for the widening of Hillside Ave to accommodate two-way traffic will be conducted. This is to direct staff on potential future costs associated with changing the retaining wall and roadway prism of Hillside Ave and better understand the roadway as a whole. Staff does not currently intend to widen Hillside Ave.

We appreciate that you are not recommending to widen Hillside Ave right now, but we think even getting an estimate is waste of your time and the city's money. That part of Old Town (Hillside, Southern end of Main Street), with its many pedestrians without protected walking areas and many homes very close together would not deal well with even more cars and hotel shuttles. As you studies have shown, the problem isn't people walking on Hillside, it's the confluence of people and vehicles at Hillside, Main & Daly. Please don't even consider adding to that problem.

Please let me know if you want to discuss or if you have any questions.

Thank you!

Mark Maziarz
PO Box 1806
Park City UT 84060

Alexis Verson

From: randylscott513@gmail.com
Sent: Wednesday, August 14, 2019 6:00 AM
To: Alexis Verson
Subject: Old Town Traffic Plan Input

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Alexis,

Thank you for making yourself available for input on traffic suggestions. I was not able to make the recent meeting at the library, so I appreciate having a way to give constructive input.

I live at 1359 Park Avenue and have so for 5 years now. I do see increases in Old Town traffic and while I understand that it is inevitable and I do live on Park Ave, I do see a fair amount of commercial vehicle traffic that I believe should be redirected. It is especially busy in the mornings starting often times around 5:30am. I am referring specifically to Linen companies, US Foods/Nicholas Foods/Sysco types of trucks. They are pretty loud as they accelerate up Park Avenue and I know that other residents hear this every day including myself.

As there are really only a couple of restaurants on Park Avenue, and they are already situated around lower Main Street, I believe that requiring them to use Deer Valley Drive for entrance and exit would be reasonable. This would keep them off of Park Ave, where the road is already narrow and also prevents them from encountering pinch points with the city busses, as there is often times no room for both on the road.

This is the only problem that I believe there to be a reasonable solution toward. I see significant increases with Lyft and Uber (as well as parking and idling in City Park and the Library parking lot waiting for rides), but I don't have a well thought out proposal to consider here, as I know that is very difficult to monitor and also solve.

Thank you for making a platform available and I hope that this will help in some way for the discussion on Thursday this week.

Best regards,

Randy Scott
1359 Park Avenue
801-712-1876

Alexis Verson

From: Kim Marks <kimmarks@comcast.net>
Sent: Thursday, August 15, 2019 11:48 AM
To: Alexis Verson
Subject: Re: Old Town Circulation and Access follow up

Thanks Alexis.

Please have the planners consider the impact to Prospect, Hillside, Chambers and all of our narrow old town streets. The "short cutting" thru our neighborhood has become a real danger to old town residents.

Don't make old town more accessible to traffic, make it less accessible.

Make our neighborhoods live-able not a drive by tourist attraction or door matt for upper Deer Valley. I appreciate your attention to this and anything you can do to keep these historic neighborhoods safe.

Kim Marks

57,59 68 Prospect Ave.

Sent from my iPhone

On Aug 15, 2019, at 1:00 PM, Alexis Verson <alexis.verson@parkcity.org> wrote:

Good morning,

Thank you for providing us with feedback regarding Old Town Access and Circulation. This item is on Council's agenda during Work Session Thursday, today, beginning at 4:30 p.m. You can find the staff report and exhibits listed here.

- If you have already provided email feedback, this has either been included in the packet, or will be presented (if received after Sunday) to Council at the meeting.
- You can still send feedback to alexis.verson@parkcity.org and/ or Council Mail (council_mail@parkcity.org) to be considered/submitted as part of the record
- There will also be opportunity for public input at the meeting.
- If driving to the meeting, park in China Bridge and parking validations are available in Council Chambers.

Thank you,

Alexis Verson
Senior Transportation Planner
Park City Municipal Corporation
445 Marsac Ave.
Park City, UT, 84060-1480
Phone: (435) 615-5317
Mobile: (385) 270-2465
Fax: (435) 615-4901

<image001.png>

Alexis Verson

From: Laura Suesser <laura.suesser@gmail.com>
Sent: Thursday, August 15, 2019 12:20 PM
To: Alexis Verson
Subject: More Stairs in Old Town

Thanks for your feedback Alexis.

I should mention that I am a current City Planning Commissioner. I have been an advocate of protecting our Old Town ROWs for years in hopes of getting more stairs in OT to make walking an easy choice for residents and visitors. More stairs would get people out of their cars and stop them from calling an Uber because it will be faster to walk to town.

I appreciate you saying, as our senior Transportation Planner, that connecting Old Town with additional stairways is a great idea and that preserving our ROWs is important. I have lived on Lowell Ave since 2005 and I know for a fact that adding stairways will get people to walk more and drive less. It's so obvious. Try walking from Main St to Northstar (or the reverse) and you'll see what I mean.

Last night the Planning Commission heard an application requesting approval for a resident to build a private driveway over the 9th St ROW at 901 Woodside. Approval would impede future development of the ROW, including installation of a 9th St stairway. I strongly objected to the application and it was continued to a date uncertain, but I suspect it may soon be approved.

Given your current focus on circulation in OT, I would welcome your advocacy for additional stairways to promote walkability and therefore the need to preserve our ROWs for public use.

~~Thanks for your time and attention to this matter.~~

Laura Suesser
laura.suesser@gmail.com
m: 435 210 1533

Sent from my iPhone

Begin forwarded message:

From: Alexis Verson <alexis.verson@parkcity.org>
Date: August 15, 2019 at 10:41:03 AM MDT
To: Laura Suesser <laura.suesser@gmail.com>
Subject: RE: More Stairs in Old Town

Good morning Laura,

Thanks for providing these written comments on Old Town stair connections. I am sad to hear of pups and high heels being the casualties of the stairways! Connecting Old Town with additional stairways is a great idea, particularly to preserve historic ROW. This is valuable feedback and I will make sure to include it in the Council packet for the meeting this afternoon.

I will reach back out after Council discussions in the next couple of weeks with a follow up.

Alexis Verson

From: Angela Moschetta <angelabella@gmail.com>
Sent: Thursday, August 15, 2019 1:37 PM
To: Alexis Verson
Subject: Re: Old Town Circulation and Access follow up

Hi, Alexis!

Thanks for following up. I plan to be at the meeting tonight. I thought there were some really great ideas from the public at the library meeting. I'll reiterate some of my thoughts herein in no particular order.

To facilitate flow in Old Town

- ban commercial vehicles from using Hillside
- identify (including with signage) everything south of Grappa as residential with no thru traffic allowed
- Main Street one way uphill/southbound
- all visitor/commerical/commercial district traffic encouraged (including with signage) to turn onto one way Swede Alley down/northbound
- run trolly on singular counterclockwise loop up Main, down Swede, through transit center, around roundabout and back up main from bottom. this will make it WAY faster, reduce burden on Main and keep it out of residential areas up top
- force all commercial traffic to access Main St via DV roundabout and Main street access points direct from DV drive north of the roundabout near Barclay Butera and by Vinto
- designated shuttle pickup/drop off points for all commercial shuttles
- restrict taxi/uber/lyft pickup to designated spots along a single side of main street
- enforce no idling
- work wth Uber/Lyft to restrict cars allowed to pickup/drop off passengers here to ONLY those with 4 wheel drive from November thru April. this is absolutely possible, as drivers must input vehicle details in order to qualify for Uber Ski.
- free parking in various lots and garages during snow storms for up to 24 hours only for locals with permit. this is to facilitate plowing and snow removal.
- during special events like sundance and arts fest, work with Uber/Lyft to ban cars from certain streets unless they are specifically picking up/dropping off on them. again, this technology exists for both companies. they would just have to implement it.
- enforcement for commercial vehicles. not allowed to use pickup/drop off zones without proper sticking
- signs for all side streets west of park between 7th and DV drive and west of Main between Heber and Gappa identifying residential neighborhoods

To lessen car traffic/cars in Old Town and promote walkability

- no oversize vehicles allowed to hang over sidewalks and curbs and impede pedestrian and/or vehicular traffic in roads
- mandatory sidewalk snow removal by homeowners. fines if not performed in timely and efficient fashion.
- restrict number of vehicle permits allowed per address (2 max per household regardless of size) based on availability of onsite parking versus need for street parking
- limit possibility to get additional parking permits based upon certain factors - number of primary residents in house (must prove), number of renters (must provide notarized list), charge significant fees for additional permits over initially allowable, cap number of extra permits available
- remove parking requirements (except for disabled) from all City owned/managed affordable housing
- parking permits must be assigned to a license plate and not a street address

- remove all unauthorized signage claiming street parking in front of homes as only for residents/visitors of that home
- sidewalks on one side of all streets. street parking limited to the other, no dual side of street parking.
- widen all sidewalks and walkways (including in HOA development) to facilitate wheelchair traffic

Thank you for all your great work on these projects and your great listening skills!

Angela

On Thu, Aug 15, 2019 at 11:00 AM Alexis Verson <alexis.verson@parkcity.org> wrote:

Good morning,

Thank you for providing us with feedback regarding Old Town Access and Circulation. This item is on Council's agenda during Work Session Thursday, today, beginning at 4:30 p.m. You can find the staff report and exhibits listed here.

- If you have already provided email feedback, this has either been included in the packet, or will be presented (if received after Sunday) to Council at the meeting.
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- If driving to the meeting, park in China Bridge and parking validations are available in Council Chambers.

Thank you,

Alexis Verson

Senior Transportation Planner

Park City Municipal Corporation

445 Marsac Ave.

Park City, UT, 84060-1480

Phone: (435) 615-5317

Mobile: (385) 270-2465



Memo to City Council Re: Proposed Old Town Circulation Improvements and Study Elements

Background

The HPCA would like to remind Council, our partners, and the Public that our member businesses and locations are indeed part of the fabric of a historic district. They represent the commercial portion of the district with a long history of authentic commercial uses serving the community and providing a major cog in the economic engine through the various evolutions of the Park City Community all while making significant investments to preserve our historic structures and community character. In other words, the close adjacency of commercial activity and residential uses in a tightly designed historic district with limited and narrow points of access and limited parking inventory is not a new challenge but one that has evolved over time together and in many ways is simply facing the newest iteration of finding the right balance.

The member businesses of the historic district wish to recognize and find ways to support the priority the Council has placed on sustainability, reducing traffic congestion, and minimizing traffic and parking impacts to neighborhoods surrounding the district. While the HPCA plays no specific role in contracting or procuring commercial transportation service to the district we recognize that some of our member businesses are appropriately a prime attraction to the patrons served by the various forms of commercial transportation service to the district; in fact, their patrons are our patrons. At least some of the transportation services, lodging shuttles in particular, seem to us to be providing a service very aligned with the aforementioned Council and Community goals providing opportunity for trip reduction, reduced parking demand, and improved overall sustainability. If there is issue with these elements of the commercial transportation network it is in operations not in the need for their service. For this reason, we are supportive of the current staff recommendations to encourage more sensitively managed and organized operations for delivering these customers to Main Street rather than wholesale changes to the model. However, we would also like to express our concern that we are among the most heavily regulated, highest taxed, and infrastructure challenged commercial districts in the greater Park City / Summit County area. Over the past several years we have participated in the first significant paid parking program in a local commercial district, the first initiative to require off site employee parking and trip consolidation, loss of parking to support public plazas, pedestrian safety improvements, parking meter placement, etc. At the same time our member businesses have experienced significant increases to the commercial tax structure to support regional transit, transportation, and open space priorities, and have seen prior committed

2. Better strategy and infrastructure to capture visitor and destination trips and distribute them to the historic district efficiently where that is their preferred destination. Cooperative discussion about changes, replacement, or enhancement of satellite parking facilities and the level of transit service provided from those facilities.
3. Recognition and provision of solutions for a workforce that is necessary to support our economy but that is more and more dispersed throughout the region due to housing costs and other economic pressures.
4. Recognition of the cumulative impacts impacting traffic in and to the historic district that are and will continue to be heavily influence by dramatic changes in the regional development patterns due to new development outside the district and in some cases outside the municipal limits, annexation proposals, and other regional influences.
5. Conversion of commercial space within the district to uses with greater intensity of employee generation, parking and trip demand without adequate tools to mitigate those impacts.

Thank you for the opportunity to submit comment on the proposal currently under consideration. We will look forward to continuing to work with staff as the proposal is refined and next steps outlined.

Richard S. Luskin

P.O. Box 1966
Park City, Utah 84060
Ph: 310 463 6614

September 6, 2018

Honorable Andy Beerman
Mayor of Park City, Utah
445 Marsac Avenue
Park City, Utah 84060

Dear Mayor Beerman:

First, happy birthday. Since I was born also on August 17th, I don't usually forget that date and am always curious who I share my birthday with. In any event, I write this letter requesting that the ordinance (Section 10-1-4 UTC) prohibiting ebikes on Park City trails be reconsidered by the Park City Supervisors and rescinded. I would like to be on the agenda to present my case before the Park City Council.

Preliminarily, and I apologize if its lengthy but I want to provide some of my background to give credibility to my comments. As you know, I was General Counsel for Black Diamond Equipment, Ltd. for 18 years. As such, I dealt with serious risk management issues insofar as Black Diamond is the manufacturer of equipment for adventure and high risk sports. Black Diamond was also active on land use issues in Utah. Currently, I am General Counsel for POC Sports, a Park City based company which manufactures protection products for participants in gravity sports, namely cycling and skiing. Again, in this latter position, much of what I do involves risk management and evaluating cycling market and cycling related policy issues. Prior to these positions, I was the Executive Director of Environment Now, the Walt Disney Company's environmental foundation. In that position, I was involved globally with environmental initiatives and, most particularly, land use issues. I was also the Supervisor of the Squaw Valley Ski Patrol for 6 years and the Backcountry Ranger in Glacier National Park, Montana for 8 years, both of which involved risk management, rescue operations, and backcountry use policies. After law school, I became an environmental lawyer and have argued federal court appeals that have become precedent for various environmental issues related to construction in alpine environments. In summary, I have a background both with policies related to outdoor sports and a record of having an environmental consciousness.

With regard to the Park City community and Utah, I was a Park City Planning Commissioner, was on the Executive Committee of the Mountain Accord (sharing the post with Peter Metcalf), have served six years on the Ski Utah Board, six years on the Access Fund Board (protecting climbing access nationwide), was a key player on Congressman Matheson's Wasatch Wilderness Bill Committee, and have been on numerous other boards and committees related to the environment and outdoor sports. I have donated an extensive amounts of time working for the public good.

Along with being on public interest type boards, I have, on a pro bono basis, provided legal advice to the Mountain Trails Counsel, drafted templates for donations to the archives of the Park City Museum, and similarly provided pro bono legal help to the Summit County Land Conservancy. In summary, I have endeavored to be a good contributing member of the Park City community and try to stay abreast of its demands and issues.

I am 70 years old and had a lengthy career, in my youth, of ski and bike racing, the latter which occurred decades before the Armstrong era which made road bikes popular in the U.S. I was also very active racing throughout the infancy of mountain bike racing. Unfortunately, as time would have it, I have had biological parts in my body replaced by artificial parts and, along with age, unfortunately cannot perform physically at the same level as I used to. I realize this is a lament shared by many of my peers here in Park City. Our ability to still participate in the sports we love, at some level however, remains a primary motive for our continued residence in and commitment to this community.

For the past five years, as POC has been a sponsor and I have travelled as their representative with the Cannondale Tour de France team and, accordingly, spent considerable time in Europe involved with biking. Europe has completely accepted, as well as celebrated, ebikes, including e-mountain bikes, and I have yet to detect any of the problems in Europe everyone here expresses so much concern about. I have an ebike. I ride it often. I was even on the ebike panel promoting ebikes at the last two Interbike Trade Shows in Las Vegas. They have provided me the opportunity to resist, in part, the aging process and to continue to enjoy biking and perform at a somewhat athletic level. I readily encourage others of my peers, many of which are prominent members of this community and who have historically made this community what it is, to buy one.

I have worked on Park City trails, with shovel and legal advice, because I believe them a great benefit to all in Park City and not just the 20-30 year old testosterone driven athletes so abundant in this town. When I ride my bike, I do not go faster than the general bike population here on the flats or climbing nor do I do so on downhills. Indeed, I am frequently passed. For those of you that haven't experienced one, you need mountain biking skills to handle an ebike, whether you go uphill or downhill. Most importantly, it is a bike. You have to peddle it. You can adjust the assist so there is little benefit over a non-assisted bike. Indeed, to me, the extra wattage push is no more than adding another few more gears to a regular mountain bike. It is unlikely that speed up or down should be an issue in any event given that getting out there and doing doesn't have to be a "competition". We already allow lift served "downhillers" as well as have essentially downhill bikers coming from either shuttling their bikes on the bus or by car up Empire pass. Are these not themselves "motorized" uses.

It has been well documented that an e-mountain bike doesn't cause any more damage than a regular mountain bike. IMBA recently carried out a study and confirmed that fact; however, if damage is really a concern, all bikes should be

banned from the trails. Bikes of all kinds do damage. Moreover, gears get bigger every year (query the new Sram Eagle rear cog with 52 teeth) and the smaller the gears, likely the more damage to the trail. As for speeds, the downhillers, both lift assisted and those that ride the busses to Empire and race down the mid mountain trail, likely pose the greatest risks to trail users.

So, who is the ordinance protecting?

When I was the supervisor of the Squaw Valley Ski Patrol, we banned telemarking and snowboarding for three years as we believed it was too dangerous to mix them with skiers. In the mid-1980s, I lived in Marin county near the inventors of mountain bikes--Tom Richey and Gary Fisher. I helped form the Main Bicycle Trails Counsel to allow mountain bikes on Mount Tamalpais, where they were banned for many years because of anticipated conflicts with horses and hikers. Now Mount Tamalpais is a mountain biking mecca without all the problems everyone anticipated. Multi-use, which was the guideline we used when I was a Park Ranger, worked. I moved here from Malibu where I surfed. Laird Hamilton lived in Malibu and invented the Stand Up Paddle board ("SUP"). Surfers whined endlessly that they should be banned from surf zones since you could catch a wave earlier using a paddle. Their "war cry" was "if you can't paddle with your hands, take up another sport". That same "war cry" is being lodged against Laird Hamilton right now for inventing tow in surfing. Ironically, at Black Diamond, we were the innovators for fat skis and crucified in the "blogs" since the "whiners" said that fat skis would ruin powder skiing (at least for the testosterone driven crowd). Now most everyone uses fatter skis on snow days. Short skis had a similar history and the initial reaction to oversize tennis rackets was very negative and adversarial. The "Prince" racket was initially considered as cheating but now its standard fare. Simply, advances in technology are not usually immediately accepted.

Isn't our marketing program in Utah based on promoting our outdoor amenities? As I said above, I spend a fair amount of time in Europe each year. During my last trip, at several Swiss resorts, the only mountain bikes you could rent were e-mountain bikes. Europeans have recognized them as part of the standard outdoor gear quiver and, not only accepted them, but are making them the bike de jour. No doubt it will happen here as well since every major mountain bike manufacturer--Cannondale, Trek, Specialized, Santa Cruz, Felt, Pivot and so on, has spent a lot of money, R & D, to make ebikes now and will have to ensure their acceptance. The latest bike industry magazine had headlines which read "The Europeans Are Coming", which referred specifically to ebikes. It is inevitable that ebikes will become a standard alternative in our quiver of biking gear alternatives. So why not be ahead of the game and capitalize on it.

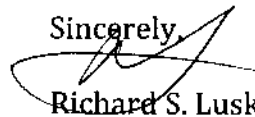
In preparing for evaluating the ebike trail ordinance, there was purportedly a "pilot program" whereby ebikes were banned on the trails and, after a year, Park City would consider the impacts and determine whether there should be an ordinance. After the year "pilot" ban, the ordinance went into effect. The process that took place turns logic on its head. If you want to determine an impact, you

"allow" the potential impact (here--allow ebikes) and, after a pre-determined time, analyze the problems, if any, and then make your determinations. The whole "pilot program" was pre-textual and worthless. If ebikes remain a concern, a proper pilot program would be to now allow them for a certain period and then determine if and what problems may arise.

As described above, I have spent 6 years on the Ski Utah board. Their mission is simple--bring skiers here because its good for the economy--and we want to share our great mountain resources. The same philosophy should exist for mountain bikers and that population should not exclude ebikes. Its just good business. Indeed, at Interbike, after I spoke on the ebike panel, the mayor of Fruita, Colorado came up to me to further explore my thoughts. Fruita was not a very prosperous town until they started creating mountain bike trails. It is now prospering and, since the Mayor is open minded, ebikes are just more opportunity for them and she wanted to exploit that opportunity. We have built trails all over the place in Park City and why shouldn't our economy benefit from them and more people be allowed to use them--not just the young athlete. Isn't that what being a resort is all about. Moreover, by banning them, as I said above, who are we trying to protect--the lift served downhillers? the car or bus shuttled bike riders? Who?

I have heard all the ridiculous arguments about unprepared people getting hurt because they are on ebikes which will allow them access where they don't belong. That is pure malarkey, to use a technical term. You won't get far on an ebike without bike skills. Moreover, both Park City and Deer Valley allow anyone who shows up with a bike, owned or rented, to take it up on a ski lift and then ride down. To me, in consideration of all my risk management experience, that is a much more exposed proposition than a person who has to ride his bike up the hill.

I could go on but there are countless articles which logically support the use of ebikes on trails. The present "knee-jerk" reaction of bans will fade most certainly. Most all of the arguments against ebikes are "elitist". I do believe that my career has given me an objective perspective and my age has allowed me to see and made me appreciate the many advancements in bike technology which have occurred over time, which now as culminated in ebikes. There will always be advancements in every sport and there will always be "elitist" naysayers. And now, unfortunately, I believe Park City has succumbed to that paradigm. Accordingly, I believe the ebike ban should be re-considered and rescinded. At a minimum, there should be a real "pilot program" to allow them for a year and to see if, in reality, there are any impacts or repercussions.

Sincerely,

Richard S. Luskin



Tips for Buses and Vans That Transport Passengers to and From Airports, Train Stations, and Ship Ports

What Determines Whether Passenger Transportation is Regulated?

Generally, Federal safety regulations apply when you operate a "commercial motor vehicle" in interstate commerce. To determine whether your bus or van is a commercial motor vehicle, it is necessary to consider vehicle size, passenger capacity, and in some cases whether the operations are for-hire. If you are transporting passengers in any size vehicle interstate and for-hire, the operating authority registration and other commercial regulations also generally apply. There are specific exemptions, however, for certain operations.

Am I Conducting For-Hire Passenger Transportation?

If you transport passengers across a State line, even occasionally, and you accept any type of payment for the transportation, you are for-hire and operating in interstate commerce. Sometimes the for-hire nature of the transportation is not obvious, such as when transportation is paid for as part of a total package fee.

Passenger Transportation Can Be in Interstate Commerce without Crossing a State Line

Companies that transport passengers within a single State (intrastate travel) may nevertheless be subject to Federal regulations on interstate transportation. If a trip starts in one State and ends in another and the travel uses multiple modes of transportation (e.g., an airplane or train for part of a trip and a shuttle bus service for the remainder), every part of the trip is considered interstate commerce if the entire trip is prearranged. Likewise, if the trip begins or ends outside the United States, and the passenger has pre-arranged the highway portion of the trip, all U.S. transportation during the trip is considered interstate commerce.

On the other hand, if a passenger did not make prior arrangements and obtains transportation after arriving at an airport, port, or train station, subsequent highway transportation is not a continuation of the trip and is not considered interstate commerce.

Commercial Regulations

Unless exempted, "for-hire" motor carriers transporting passengers in interstate commerce must comply with FMCSA's commercial regulations including operating authority registration. Sometimes people pay for transportation through a total package fee that covers various services including transportation. But such compensation nevertheless makes the transportation "for-hire."

Safety Regulations

Unless excepted, motor carriers transporting passengers in commercial motor vehicles must comply with FMCSA's safety regulations. Again, to determine whether your bus or van is a commercial motor vehicle, it is necessary to consider vehicle size, passenger capacity, and in some cases whether the operations are for-hire.

Financial Responsibility

The required level of financial responsibility (insurance or other acceptable security) for for-hire, interstate passenger transportation is determined by the highest seating capacity of your vehicles. Vehicles with a seating capacity of 15 or fewer passengers (including the driver) require \$1.5 million of coverage, and \$5 million is required for vehicles with a seating capacity of 16 or more passengers (including the driver).

Exemptions and Exceptions

Certain passenger carrier transportation is exempted or excepted, in whole or in part, from FMCSA's jurisdiction. The following are some examples:

- For-hire companies transporting passengers only within a commercial zone are not subject to FMCSA's commercial regulations.



U.S. Department of Transportation
Federal Motor Carrier Safety Administration

Commercial zones are geographical areas in and around municipalities that are designated by regulation. See 49 CFR part 372.

- Highway transportation of passengers that is incidental to aircraft transportation is not subject to FMCSA's commercial regulations if the transportation is (1) limited to transporting passengers who have just travelled by air or will travel by air immediately following the highway transportation, and (2) is confined to an area within a 25-mile radius of the boundary of the airport.
- A company that receives indirect compensation (such as a total package charge for various services including transportation) for interstate passenger transportation using 9 to 15 passenger vehicles, weighing less than 10,001 pounds, is not required to comply with most of the safety regulations. However, the company is required to register with FMCSA and to comply with commercial regulations unless it operates entirely within a commercial zone.

Example Scenario

A traveler books and takes an airline flight to a city in another State and reserves a rental car in that city. The car rental company is located near the airport and offers a shuttle bus between the terminal and its rental car facility. The shuttle runs continuously during business hours and does not require reservations. All shuttle vehicles have a gross vehicle weight (GVW) and gross vehicle weight rating (GVWR) of less than 10,001 pounds, and are designed to transport either 12 or 15 passengers (including the driver). The vehicles are never operated beyond designed passenger capacity. The shuttle operates on roads and highways that are open to public travel, and all shuttle transportation is confined to a zone within a 25-mile radius of the airport's boundary.

Regulatory Implications of the Scenario

- The car rental company is exempt from obtaining operating authority registration from FMCSA because the passenger transportation is (1) incidental to the transportation of passengers by aircraft, (2) limited to transporting passengers who have just traveled by air or will travel by air

immediately after being transported on a highway, and (3) confined to a zone within a 25-mile radius of airport boundaries.

- Based upon the seating capacity of the vehicles, and the for-hire and interstate nature of the passenger transportation, the car rental company must maintain \$1.5 million of financial responsibility (insurance or other acceptable security).
- Based upon the GVW, GVWR, and designed passenger capacity of the vehicles, the drivers of these vehicles are not required to have a commercial driver's license and are not subject to employer conducted drug and alcohol testing.
- Due to the GVW, GVWR, designed and used passenger capacity of the vehicles, and the indirect nature of the compensation for passenger transportation, the rental car company must obtain a USDOT number from FMCSA, but it is not subject to most of the safety regulations.

For More Information

FMCSA has a website with information about Federal regulations for passenger transportation. You can get additional assistance by:

- Calling the FMCSA Information Line at **1 (800) 832-5660**
- Contacting your local FMCSA field office www.fmcsa.dot.gov/mission/field-offices

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