

PARKS & RECREATION COMMISSION SPECIAL VIDEO MEETING

Tuesday, April 26, 2022 at 5:30 PM

BOARD MEMBERS:

LOCATION & CONTACT

Zoom Meeting

Chair Jodi McCarthy
Vice Chair Peter Struck
Board Members: Don Cohen,
Sara Berkenwald, Paul Burstein,
Sara Marxen, Rory Westberg

Phone: 206.275.7626 | www.mercerisland.gov

In compliance with the Americans with Disabilities Act, those requiring accommodation for meetings should notify the Staff Liaison at least 24 hours prior to the meeting at 206.275.7706.

Virtual Meeting Notice

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Registering to Speak: Individuals wishing to speak live during Appearances will need to register their request with the staff liaison at 206.275.7600 or <a href="mailto:email

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CALL TO ORDER & ROLL CALL - 5:30 PM

PUBLIC APPEARANCES

REGULAR BUSINESS HYPERLINK "applS80d34e03b253455db0ca10b38419e40a"

1. Bike Skills Area Assessment

Recommended Action: Receive the report and provide feedback.

OTHER BUSINESS

- 2. PRC 2022 Planning Schedule Update
- 3. Commissioner Reports

ADJOURN



PARKS & RECREATION COMMISSION STAFF REPORT

Item (1) April 26, 2022 Regular Business

AGENDA ITEM INFORMATION

TITLE:	Bike Skills Area Assessment	☐ Discussion Only				
		□ Action Needed:				
RECOMMENDED	Receive the Bike Skills Area report; provide feedback					
ACTION:	on the options and recommended improvements;	☐ Ordinance				
	endorse staff's recommendation for Council	☐ Resolution				
	approval.					
STAFF:	Jason Kintner, Chief of Operations/Public Works Director					
JIAII.	Alaine Sommargren, Deputy Public Works Director					
COUNCIL LIAISON:	Craig Reynolds					
EXHIBITS:	1. Upper Luther Burbank Park Bike Skills Area Assessment report					

SUMMARY

On October 7, 2021, the Bike Skills Area in Upper Luther Burbank Park was temporarily closed due to significant operating challenges and safety concerns. Challenges included repeated unauthorized expansion of the course, damage to soils and established vegetation, and construction of jumps that exceeded park rules. The closure allowed the City to ensure the park area could operate safely and sustainably.

At the April 26th Special Parks and Recreation Commission meeting, staff will brief the Commission about the outcomes of the Bike Skills Area Report, provide additional options for discussion, and provide the Commission with a recommendation for the Bike Skills Area.

BACKGROUND

The Bike Skills Area (BSA), formerly known as the BMX park, was originally created by neighborhood riders in the 1970's. At the time, the area was owned and managed by King County. Use of the area continued over the years, with users creating and shaping jumps and trails within the ravine area. The name of this location was changed in 2021 to reflect changes in the use of the facility over the past five decades to include other biking styles.

Over the years, increased use and unauthorized expansion of the Bike Skills Area caused damage and degradation to the surrounding hillsides and vegetation. Recognizing the need for professional consultation, the City retained Action Sports Design, LLC (ASD) in October 2021 to perform a full assessment of the site and make recommendations to improve the operations and safety of the Bike Skills Area while minimizing environmental impacts. The final report is attached as Exhibit 1.

During the closure, staff also completed necessary improvements to the site including:

Parks Maintenance staff removed the unauthorized jumps and regraded the site,

- Undermined hillsides were backfilled and stabilized,
- The BSA was professionally surveyed to record site topography, and document the area impacted by the existing BSA,
- Staff completed a tree risk assessment and addressed degrading trees, and
- A volunteer event was held on March 14, 2022, to plant new native trees and shrubs along the BSA boundary areas

DISCUSSION

Since the closure of the BSA, public comment and discussion regarding the facility has been impassioned and divisive. Concerns about the abrupt closure, length of the course closure, and potential reopening of the facility have been well voiced. While opinions about the future of the facility have been divided within the community, the BSA is recognized as a unique recreational amenity for kids and teens on Mercer Island.

The BSA Assessment report provides several recommendations for the re-design of the BSA in Upper Luther Burbank Park (ULBP). Included below are several long- and short-term options for next steps, each with a brief analysis, for consideration and discussion. Although BSA users were previously allowed to construct jumps without City oversight, this action will no longer be allowed in any option discussed below. While unauthorized digging and construction will not be allowed, volunteer events in which the community can assist with construction under the professional guidance of the engineer/architect/project team will be permitted.

LONG-TERM FACILITY OPTIONS:

1. Re-design the ULBP BSA per ASD's recommendations

The re-design of this facility, as outlined in the report, can be completed. It will require additional funding to complete an environmental review and permitting, and a professional design will be required to engineer the final bike flowline and drainage system. Completion of this option will include additional input opportunities for both riders and park users to balance the needs of different park uses.

Due to the complexity of the site (topography, lack of existing stormwater infrastructure) and anticipated permitting requirements, this option will not be a "quick fix," and will likely take 12-24 months for full environmental review, project design and construction.

Re-open the ULBP BSA with new jump layout, but no drainage improvements
 In this option, a newly designed jump layout is constructed, but without any drainage improvements as suggested in the final BSA Report. Due to standing water during the rainy season, this option would likely convert the BSA to a three (3) season facility and necessitate closure during the rainy season.

This option would not require significant drainage improvements and would limit the stormwater design requirements which would likely entail quicker design, review, permitting and construction processes. Staff anticipate this option could be completed within 6-12 months. Due to the seasonal closure of the facility during the west season, the site would require increased, ongoing monitoring to ensure that the course is not being used or altered.

3. Re-open the BSA with no proposed improvements

The benefit of this option is to fully support the BSA users, who would be able to quickly begin using the course once again. This option does not take any proposed improvement into consideration and reopens

the facility "as-is." Consequently, the facility remains unimproved and long-standing issues remain unresolved. Although an option for PRC consideration, staff does not recommend this option.

4. Keep BSA closed while a full public engagement process is undertaken to determine needs, desired locations

Divergent public opinions on the status and impact of the BSA have been prevalent, well before the temporary closure of the BSA. The question as to whether the BSA "fits" in Upper Luther Burbank Park remains a contested discussion amongst different members of the community. One option for consideration is to keep the BSA closed while a full public engagement process is undertaken to identify current and future needs, desired locations, and amenities.

A robust public engagement process will likely span 6-12 months with additional project design, permitting and construction to follow once a permanent location is determined. This option likely keeps the BSA closed for two (2) years or more. Given the significant impact of a prolonged closure on BSA users, staff does not recommend this option.

5. Consider Deane's Childrens Park as a potential BSA location

During the closure, staff began evaluating other park facilities that could potentially be considered a new "home" for the BSA. Consideration of parks included whether the addition of a bike area would negatively impact actively used park spaces or the ecological health of open space areas, and whether a park could provide users with similar characteristics as the BSA established in Upper Luther Burbank Park, including terrain and overall size.

For many years, part of Deane's Park was home to the City's Adventure Playground. Surrounded by gently rolling terrain and a blend of deciduous and coniferous trees, the park provided an environment for kids to imagine, build and create their own adventure. Although the site has many trees, the site lacks healthy understory vegetation and has already been significantly impacted by active recreation. The City no longer offers the Adventure Playground program. Construction of a new BSA in this location would not adversely or negatively impact the site.

Additional benefits of this location include its mid-island location, nearby park amenities such as restroom facilities and utilities for constructability purposes, as well as parking and easy park access. Although the site does not have the same topographic diversity as Upper Luther Burbank Park, design considerations could be made to accommodate the BSA at this location.

If Deane's Park is considered an option for the long-term location for the BSA, public engagement, design, permitting and construction is anticipated to take 12-18 months. Additional funding would also be necessary.

Given the long-term potential success at this location, staff recommends pursuing this option.

SHORT-TERM OPTIONS:

None of the options for next steps identified above are considered short-term or immediate. As noted, any project including construction will require additional design, permitting, and physical construction. Staff have identified two additional short-term options for consideration, including:

1. Keep the BSA closed until a new plan is identified and adopted

While this is an option for consideration, it is not recommended by staff. The BSA has been closed for an extended period and measures have been taken to address damage in the areas surrounding the course, including regrading and replanting. Although the new plants are not "established", staff feel that the recent improvements and corrective measures will limit negative impacts in this location on a short-term basis.

2. Re-open the ULBP BSA in a limited fashion during long-term planning/build. The temporary closure of the BSA has lasted nearly 7 months. Significant steps have been taken the restore the site boundaries, and unauthorized jumps have been removed. Re-opening the BSA in a limited fashion would require the importation of jump building soils, as native soils are neither available nor appropriate for such use and require additional monitoring by Parks maintenance staff. Unlike the prior use of the BSA, no digging or jump building would be permitted without City approval and supervision. The site has been surveyed to evaluate any potential expansion. Should any issue arise, such as unauthorized jump or trail building or site expansion, the City would once again close the facility until the permanent BSA is constructed.

Staff recommends re-opening the ULBP BSA in this limited and highly monitored fashion while the long-term planning efforts are completed.

NEXT STEPS

Staff seeks the PRC feedback and discussion regarding the Bike Skills Area Assessment report and recommendations, as well as staff's recommendations regarding the short- and long-term options.

As previously discussed, no funding for improvements to this facility has been approved in the City's adopted 2022 Capital Improvement Plan. A budget appropriation will be necessary for the re-opening the facility in limited fashion and the development of a long-term plan (public engagement, design, permitting, construction bidding).

Staff anticipates taking a recommendation to the City Council in May, including a request for a budgetary appropriation.

RECOMMENDED ACTION

Move to endorse staff's recommendations for short- and long-term options for the Bike Skills Area and recommend to the City Council for budget appropriation and approval.

UPPER LUTHER BURBANK PARK BIKE SKILLS AREA ASSESSMENT

MARCH 2022



Report Prepared For:

City of Mercer Island 9611 SE 36th Street Mercer Island, WA 98040 **Report Prepared By:**

Action Sports Design, LLC 12400 W Hwy 71, Suite 350-348 Austin, TX 78738

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PROJECT BACKGROUND

PROJECT LOCATION

The City of Mercer Island is home to a designated bike park, located within Upper Luther Burbank Park. The bike park, currently known as the Bike Skills Area, is situated at the southwest corner of the park, in a ravine that parallels 84th Ave SE (see Figure 1). The closest entry to the Bike Skills Area is located along 84th Ave SE, at SE 32nd St, which is marked with a parks sign. Park hours are 6 am to 10 pm.

Parking for users is located on 84th Ave SE, across from the entry and adjacent to residential homes. The Bike Skills Area is accessed from the park's pedestrian-based trail system, which runs alongside the lower section of the bike course.

BIKE SKILLS AREA BACKGROUND

The Bike Skills Area (BSA) was originally created by neighborhood BMX riders in the 1970s. At that time, the park was owned and managed by King County. Use of the area continued over the years, with users creating and shaping jumps and trails within the ravine area. In 2003, King County transferred Luther Burbank Park to the City of Mercer Island, and in 2006, the City



Figure 1. Location of Bike Skills Area within Upper Luther Burbank Park

adopted a Master Plan for the entirety of Luther Burbank Park. The bike area was identified in the plan, which indicated that the 'existing bike track would remain' (Luther Burbank Park Master Plan, page 5).

Since 2006, the City has provided oversight of the area, posting rules signage and at times, providing users with jump building materials and tools. City staff have engaged with users of the BSA to establish lines of communication and educate users on appropriate use of the site. Starting in approximately 2016, City staff noted that the bike area was expanding and installed fiberglass markers to demarcate the boundary of the bike park. Use of the area began to increase notably in 2018-2019, and even more with the onset on the COVID-19 pandemic (2020), likely due to the lack of other recreation and sports program offerings.

Over the last several years, increased use and unauthorized expansion of the Bike Skills Area has led to damage to surrounding hillsides and vegetation, the construction of unauthorized off-shoot trails, and jumps that exceed the posted height limits. In 2020 and 2021, the City's Parks Maintenance team visited the site often to post advisory signage, re-install the fiberglass boundary markers and deconstruct large unauthorized jumps. Use of the site continued to increase, compounding the issues, and City staff determined that they could no longer keep up with the maintenance tasks that are vital to protecting

the surrounding forest and keep the site safe for users. This led the City to temporarily close the Bike Skills Area in October 2021.

Recognizing the need for professional consultation on the Bike Skills Area, the City contracted Action Sports Design, LLC (ASD) in October 2021 to perform a full assessment of the site and make recommendations to improve the operations and safety of the Bike Skills Area while minimizing environmental impacts.

PROJECT OBJECTIVES

The primary goals for this assessment are:

- Determine the condition of the Bike Skills Area
- Identify potential areas of concern with the current layout and operations
- Provide recommendations about the future design and operation of this facility

To meet these objectives, Action Sports Design provided a full assessment of the site, evaluating environmental elements, course layout and use, and circulation around the site. ASD also worked closely with City staff to gather input from park users through social media, a public meeting, and two user surveys.

Recommendations resulting from this assessment are focused on:

- Minimizing the environmental impact of the course on this forested park
- Improving safety both within and around the course
- Reducing site maintenance and management needs
- Clarifying rules for users
- Improving the bike course for users

Safety and sustainability are critical to the long-term success of the Bike Skills Area, and were key elements of ASD's assessment, analysis, and recommended next steps.

ASSESSMENT INFORMATION

On November 10, 2021, Mike McIntyre, Principal with Action Sports Design, visited the Upper Luther Park Bike Skills Area to perform an on-site site assessment of existing conditions. Weather conditions were overcast with a slight drizzle, approximately 55 degrees F, and good visibility throughout the park site lines.

During this on-site assessment, areas evaluated included the flow of the park, how the riders were using the trails, jumps, access to enter the park and potential conflict with pedestrian trail users. In addition, drainage conditions, soil used for construction, vegetation, borrow pits and tree crown locations were assessed.

Aerial photography took place via drone footage, Trail GPS (Gaia) was utilized to map existing trails, all surrounding trails were walked, jump profiles were photographed and reviewed to be utilized for the assessment.

Photography of site conditions and existing concerns were gathered for future diagrams and information to be utilized within the public meeting presentation. Photos were taken at specific angles and locations to be utilized later in the report for design direction and suggested conflict modifications for trail and bike park users. All markers and existing signage were documented during the onsite analysis.

ASD requested a topographic survey of the site showing the grades, trees, and trails to provide an accurate snapshot of current conditions, and for use in defining the limit of work for future renovations. City staff retained True North Surveying to perform this topographic analysis of the site (see Appendix D).

BIKE AREA DESCRIPTION

At the time of this assessment, the Bike Skills Area consisted of approximately 290 linear feet of bike flow trail system with the following elements:

- Session pad: Primary starting point at the top of a flow trail system that descends to a series of jumps along the flow trail.
- Jump line: The series of jumps along the line consists of a tabletop jump, double jump, and tabletop jump. The tabletop jump feeds into the berm.
- Berm/berm return: The semi-circular feature that defines the end of the jump line and the
 northernmost extent of the bike course. Cyclists use this berm to change direction and gain
 speed as they enter the return line back to the session pad.
- Return line: Coming out of the berm, the line splits into a return line to the session pad, and a bypass pad/ jump off on the east edge of the bike area. The return line back to the session pad consists of approximately three rollers (small, rounded mounds that allow riders to generate momentum riding uphill).

ASSESSMENT CRITERIA, METHODS AND OBSERVATIONS

Bike Skills Area site components that were reviewed and assessed are as follows:

Soils: The composition of soils used for existing trails, jumps, and profiles were assessed for their ability to maintain angle of repose (stable side slopes that are not prone to slumping), compaction, and appropriate shaping/profiles for bicycle activity. A visual analysis and ribbon test were used to determine sand, silt, clay, and organic matter composition. Soils are higher than recommended in organic matter, likely due to the extraction of soils from embanked slopes and areas around the course. Soil has higher silt and sand content and lacks the necessary high clay content to repel water and hold a stable angle of repose and dirt jump profile.

Drainage: Existing low spots where water was presently collecting indicates that there are no channels or swales that drain the bike area. Some short swales to the sides of the trail do exist but do not extend beyond the boundaries of the bike area. To function as a four-season amenity, the drainage issues at this site must be addressed comprehensively.

Grading: The primary reason for lack of positive drainage on the site is the use of adjacent hillsides as "borrow pits." Native soil has been pulled from hillsides near the jumps, creating undetermined or vertical embankments which are highly subject to erosion. Soils have also been removed from the ground level adjacent to jumps, creating areas for water to pool and steepening the sides of the jumps beyond a stable angle of repose.

Trees and vegetation: Due to the large amount of "borrow pits" outside of the project limit markers, the soil around tree crowns and vegetation needed for slope stabilization have been removed in several areas. Tree crowns have also been deeply covered and used as retaining structures for soil in some areas.

Circulation: One of the more obvious concerns is the existing trail circulation for both bikers and trail hikers and walkers. The BSA has one primary point of entry, located at the bottom of the course where the pedestrian trail runs alongside the bike area. The slope of the hiking trail down to the bike park is very steep (approximately 21% grade), causing bikes to have to brake and slow down considerably before entry. Entry into the bike area is located at one of the higher velocity points in the course, as riders exit the last jump and enter the turnaround berm.

Shared use of the hiking trail and bike park feeder line is identified as an area of concern, as there is potential here for conflict or collision between bikers and pedestrians. There is a critical need to explore options to alter the point of entry to the BSA, in order to separate users in the park.

Wayfinding: There is currently no wayfinding signage that alerts parks visitors and trail users to the location of or entrance to the Bike Skills Area within Upper Luther Burbank Park. Signage with park maps should be added to the main park entry points and near the bike course to educate pedestrians and bikers about the best routes for their activity.

Signage: The placement of current BSA signage indicates the main point of entry to the course, which has contributed to the pedestrian/ biker conflict zone. Bike area signage should be removed and placed at a newly defined entry for the bike course, in order to separate these trail uses. The existing signage

contains both important and outdated information. Signage should be updated to reflect current rules and user guidelines when the area is re-opened to the public.

Jump line layout: The current jump line layout follows a functional flow from top to bottom, with a decent berm return. However, exiting the berm return, the return line to the top of the course breaks into several lines, none of which are a proper return line to the session pad/flow trail start. The spacing of jumps and angles of features, lips and overall diversity of features was lacking. Having been constructed from softer soils, the lips of the jumps were extremely flat and rolled out. It was clear that BSA users utilized unsuitable soil found on-site adjacent to the features, resulting in substandard elements of the course.

Initial findings from the site analysis identified areas in need of revegetation, angles of repose to be restored to appropriate grade, circulation and trail route concerns, and problems with drainage. Preliminary recommendations were to restore the course to its original profile and address the damage to vegetation while future decisions on the design and operation of the BSA were under consideration. ASD supported the closure of the BSA and fencing of the area in order to preserve and address vegetation while planning for the area was in progress.

ASD advised City staff of preliminary findings from the site assessment, including confirmation of previously acknowledged and newly identified areas of concern. ASD provided these preliminary findings through written report, graphics, and during Zoom format meetings in preparation for the public meeting.

ANALYSIS

Data gathered during the onsite analysis was formulated into a preliminary site analysis, which includes diagrams and maps of the existing bike skills area, illustrate existing conditions, areas of concern, future opportunities, and potential recommendations to the City.

Once the topographic survey was complete, a base map was created of the existing BSA layout using AutoCAD software. Drainage issues at the existing site highlight areas in need of native soil replacement to restore the site to its original grade. The base map also identifies tree crowns of concern, and trail and bike conflict areas within the BSA.

ASD reviewed current points of entry to the park and identified potential conflict areas between where bikers enter and walkers utilize trails. Currently, walkers and bikers share the descending trail to the bottom of the BSA along the ridge. Additionally, the return berm shares an edge with the trail, resulting in riders in close proximity with trail walkers. The descent down the hill to the entrance to the BSA is excessively steep for bike users and walkers alike. Reconfiguring the entrance to the BSA to the top of the area was identified as a possible modification to the park as part of a potential future design.

The site analysis and resulting graphics were used to generate a summary of existing conditions, identify areas of concern, and to offer City staff and community members suggestions on priority actions for site improvements.

PUBLIC ENGAGEMENT

Action Sports Design worked with the City to create opportunities for the public to learn about the BSA assessment, provide comments, and give input into potential improvements to the bike course layout and elements. Each forum for public input is outlined below.

Social Media

Community members were invited to follow the City's social media profiles for updates and visit the "Let's Talk" Bike Skills Area page for details about the work being performed, engagement opportunities, and upcoming events.

Online Survey #1

Three weeks after the closure of the BSA, a survey was launched to gather data from course riders. This survey was open from October 25 to November 4, 2021 and received a total of 95 responses. The survey generated a great deal of information about current Bike Skills Area users and their opinion on the current site. Some survey highlights includes:

- 93% of respondents use mountain bikes at the BSA.
- 81% of respondents travel to the park via bicycle.
- Most respondents were interested in the development of more mountain bike specific jumps and a better return line to the top of the course.
- 75% of respondents reported that they also ride at off-island facilities

Full survey results can be found in Appendix A, including specific responses about elements of the bike park that are most liked and disliked by riders.

Public Meeting

On November 15, 2021, the City of Mercer Island and Action Sports Design conducted a virtual public meeting to present information about the project status, assessment process, initial findings, preliminary recommendations, and next steps. The meeting was attended by 67 members of the public, in addition to City Councilmembers and several members of the City's boards and commissions. Participants were asked to provide input via poll questions and given the opportunity to ask questions of the presenters. The full slide presentation can be found in Appendix B.

Online Survey #2:

A second online rider survey was launched December 14th and received 27 responses. This survey focused on specific elements that BSA users would like to see incorporated into a conceptual design for the bike course. 48% of respondents characterized themselves as intermediate skilled riders, while 22% and 29% classified themselves as beginner and advanced riders, respectively. Survey responses showed that tabletops are the most desirable jump profile, followed by step-up jumps and doubles. Most respondents indicated that they were most interested in seeing a wall ride skill element, and secondarily, a roller skill element. All respondents indicated that they ride mountain bikes at the BSA. Full survey results can be found in Appendix C.

RECOMMENDATIONS

Following the site assessment and public input forums, Action Sports Design compiled all site information, survey responses, and public comment to formulate recommendations for the City. These recommendations are based on the original goals of making the site sustainable for the long term, prioritizing safety, minimizing impacts on the ecological health of Upper Luther Burbank Park, and creating a stimulating and useful bike course for Island youth.

The first and most time sensitive recommendation was the redistribution of soil from existing jumps to stabilize undermined hillsides, and provide a planting medium for native shrub installation immediately adjacent to the course. In addition, ASD recommended that soil around tree bases be regraded to more closely meet the natural soil level, in order to prevent root exposure or trunk decay. The City completed this work in January 2022, in preparation for a February volunteer planting event. The City also performed assessments of all trees in the immediate vicinity, and consequently removed four big leaf maples that were dead or in severe decline.

Action Sports Design recommends that the City consider the following if this site is to be renovated for future bike course use:

- Construction of drainage system, flow lines and jumps, as outlined in the Conceptual Design should be professionally designed & maintained in their designed form. See Appendix for the full design, including drainage, signage and limit of work.
- Graphics of the bike course layout, features, direction of flow, flow line skill levels, and drainage line locations should be posted at the site.
- The renovated Bike Skills Area should remain within the recommended footprint of the Conceptual Design.
- Provide revegetation to the regraded site to establish roots and prevent future erosion.
- Create new bike park entry access path that terminates at the session pad (south end of the course). See Appendix E for suggested trail location.
- Eliminate access to the bike park from the bottom of the pedestrian trail to avoid user conflicts and safety issues.
- Install guard railing / fencing system along northwest edge of the bike course to separate pedestrian trail from the course. See Appendix E for location of suggested fencing.
- Add robust drainage system to the entire course, in order to eliminate water pooling and muddy conditions. This will extend the life of the course and allow users to ride during the winter months. See Appendix F for a preliminary design of this drainage system.
- Install new rules signage in several locations within the bike course. See Appendix G for recommended sign text.

CONCEPTUAL DESIGN

The conceptual design for the Upper Luther Burbank Bike Skills Area was developed through a process of site analysis, public input defining user types, validation and selection of elements, circulation studies, and opportunities to repair and enhance the existing vegetation.

ASD worked through defining the limits of park development based on slope, vegetation, drainage, pedestrian and bicycle circulation. Signage locations and park points of entry and return were reviewed, analyzed and conceptually designed. Once the overall limits and circulation were defined, ASD integrated the jump profile preferred by the majority of riders surveyed, to create a progressive flow meeting the needs and preferences of the BSA rider community.

The Conceptual Design implemented a new point of entry and signage location for the BSA, placing the riders at the top of the flow trail on a session pad. The central flow line has a tabletop, roller to double jump before splitting into a decision maker. On the left flow line is a tabletop and roller before the berm return. On the right flow line is a larger step-up jump, transitioning into a roller before the berm to the return line. Once the rider turns right on the berm, they hit a series of rollers on the return line which allow them to pump to the top without pedaling. All outer lines and inner trail lines have a designed drainage system to prevent the low parts of the course from collecting standing water.

ESTIMATE OF PROBABLE COST

Based on the conceptual design and drainage plan, Action Sports Design has determined that construction of the project is likely to cost approximately \$232,441. Figure 2 (below) shows projected costs of each element of the design, including additional site revegetation.

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
02300 EARTH	HWORK				
	Grading-Site Preparation	8,450	s.f.	\$ 10.75	\$ 90,837.50
	Import Fill-Clay mix material (70% clay/ 30% sand/ silt)-flow lines surface	97	c.y.	\$ 52.00	\$ 5,044.00
	Import Fill-Clay mix material (70% clay/ 30% sand/ silt)-jumps/ features	90	c.y.	\$ 78.00	\$ 7,020.00
02600 STOR	M DRAINAGE				
	Drain Inlets-12"	21	ea.	\$ 450.00	\$ 9,450.00
	Drain Line-10" HDPE (french drain)	846	l.f.	\$ 65.00	\$ 54,990.00
	Main Drainline & outlet-Allowance	100	l.f.	\$ 85.00	\$ 8,500.00
	Storm Drain Junction Box-18" Cleanout	4	ea.	\$ 450.00	\$ 1,800.00
02820 FENCI	NG AND RAILINGS				
	4'-0" Vinyl Coated Chain Link Fencing-Green	80	l.f.	\$ 110.00	\$ 8,800.00
028900 PLAN	ITING			•	
	Revegitation	6,200	s.f.	\$ 3.75	\$ 23,250.00
02870 SITE F	URNISHINGS				
	Skills feature Manufactured-Roller	1	e.a.	\$ 8,750.00	\$ 8,750.00
02890 SIGNA	GE				
	Rules and Regulations Signage	3	e.a.	\$ 2,800.00	\$ 8,400.00
	Track Flow Line Markers limit of work	16	e.a.	\$ 350.00	
ESTIMATE O	F PROBABLE CONSTRUCTION COST				\$ 232,441.50

Figure 2. Estimate of Probably Construction Cost worksheet

CONCLUSION

The Upper Luther Burbank Park Bike Skills Area is a significant asset to the community of Mercer Island, serving a need for diverse recreation opportunities for Island youth and teens. Over the years, and particularly during the COVID pandemic, use of the bike area has increased. Unfortunately, this increased interest has led to expansion of the site, which has negatively impacted the surrounding slopes and native forest.

Upon final evaluation of the site, working with the community through a project site analysis and concept design, ASD feels the Bike Skills Area can continue, be environmentally sensitive, provide the design elements the community desires

Several design pages attached in the appendices demonstrate and exhibit the space allocation limit of development, flow lines desired, jumps and skills elements requested and professional drainage concept.

It is recommended that the Bike Skills Area be designed and constructed by a professional and that screened and properly mixed clay import is used for construction. Design will need to incorporate public feedback regarding the skill elements and will need to incorporate drainage improvements for a four-season facility. Wayfinding signage will also be needed.

In conclusion, the Bike Skills Area can coexist within Upper Luther Burbank Park with a professionally designed course including elements driven by the community.

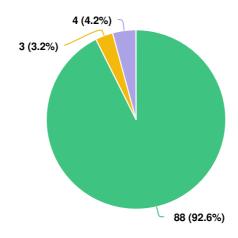
APPENDICES



- A Online Survey #1 Responses
- **B** Public Meeting Presentation
- C Online Survey #2 Responses
- D Topographic Survey
- **E** Conceptual Design
- F Drainage System Design
- G Proposed Rules Sign



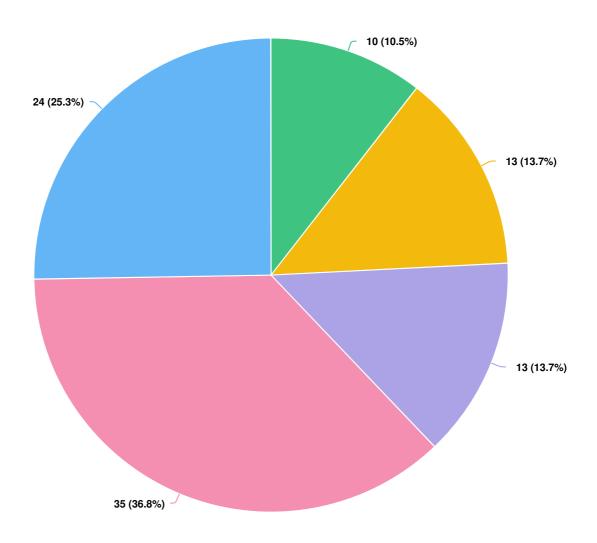
Q1 What type of bike do you typically ride at the bike park?



Question options



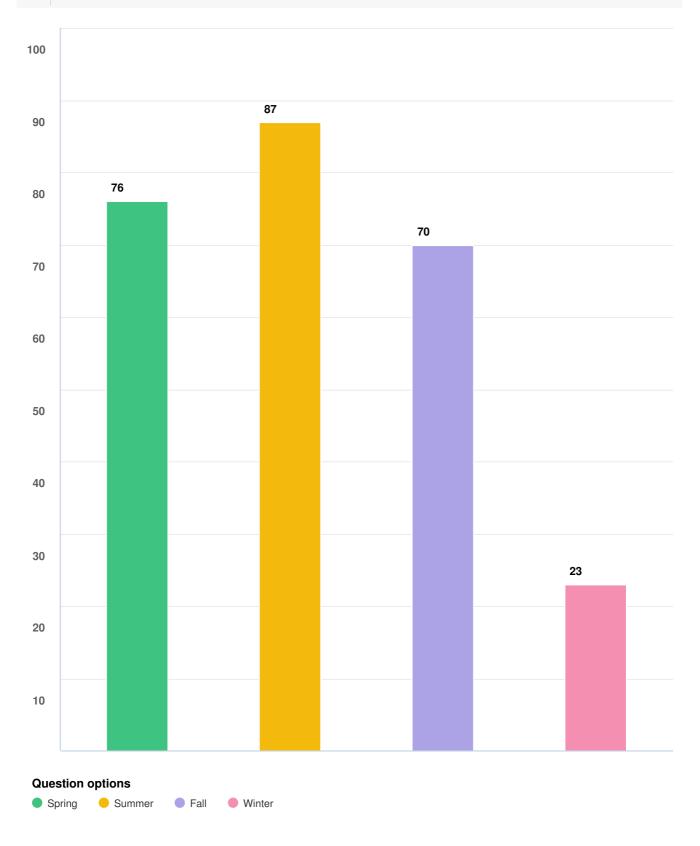
Q2 How often do you ride the bike park?







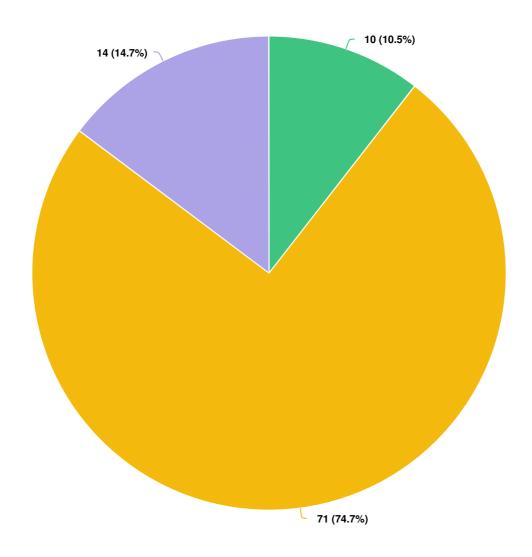
Q3 In which season(s) do you spend the most time at the bike park? Choose all that apply

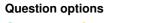


Mandatory Question (95 response(s)) Question type: Checkbox Question



Q4 What time of day do you typically ride the bike park?

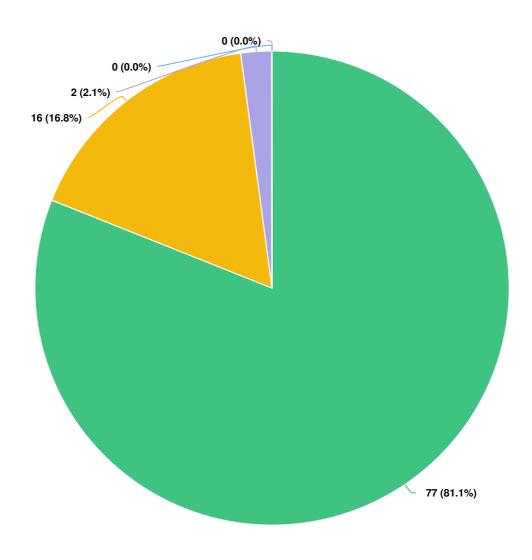




MorningAfternoonEvening



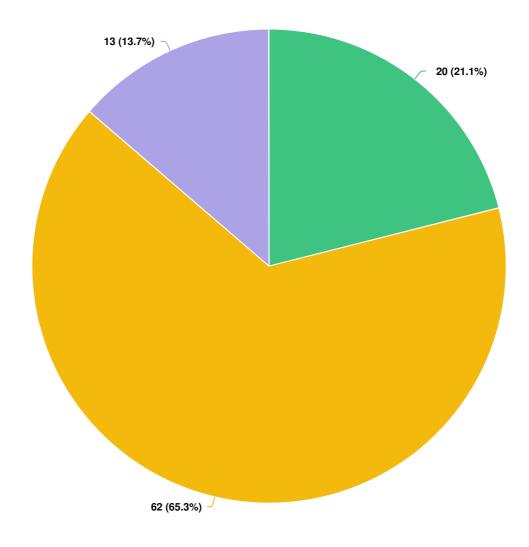
How do you typically get to the bike park?







When you ride the park, how many people do you usually see there (including yourself)?







Q7 What features do you like about the current bike park?

Screen Name Redacted

10/25/2021 04:59 PM

Screen Name Redacted

10/25/2021 05:00 PM

All features are rollable and safe if I don't commit.

Screen Name Redacted

10/25/2021 05:08 PM

Everything exept for the flow line

Screen Name Redacted

10/25/2021 05:40 PM

Jump lines

Screen Name Redacted

10/25/2021 05:43 PM

Jumps

Screen Name Redacted

10/25/2021 05:43 PM

Jumps and drops

Screen Name Redacted

10/25/2021 05:45 PM

the berm is really nice and the trick jump is nice.

Screen Name Redacted

10/25/2021 05:49 PM

terrain features

Screen Name Redacted

10/25/2021 05:51 PM

Lot's of different features.

Screen Name Redacted

10/25/2021 05:59 PM

That it is on island and I can bike to it. The jumps are good.

Screen Name Redacted

10/25/2021 06:02 PM

The jumps are fun for practicing and I like that I can bike to it.

Screen Name Redacted

10/25/2021 06:26 PM

It's the perfect difficulty for me to practice and improve my skills of

biking

Screen Name Redacted

I like the size of the jumps, not too big and not too small



10/25/2021 06:28 PM

Screen Name Redacted

10/25/2021 06:51 PM

The ability to change what I dont like and work together with other

members of the community to improve it.

Screen Name Redacted

10/25/2021 06:51 PM

I like the big table tops and safe jumps. It flows well and is safe and

fun.

Screen Name Redacted

10/25/2021 07:13 PM

I like the smaller features off the sides of the main line because they

are unique.

Screen Name Redacted

10/25/2021 07:32 PM

convenience

Screen Name Redacted

10/25/2021 07:35 PM

Fun jumps and good atmosphere

Screen Name Redacted

10/25/2021 07:38 PM

The jumps.

Screen Name Redacted

10/25/2021 07:47 PM

Accessibility, community involvement

Screen Name Redacted

10/25/2021 07:54 PM

All of them

Screen Name Redacted

10/25/2021 08:15 PM

Area that I can mountain bike on MI

Screen Name Redacted

10/25/2021 08:16 PM

Jumps

Screen Name Redacted

10/25/2021 08:18 PM

The progressive jumps and the ability to make new features

Screen Name Redacted

10/25/2021 08:18 PM

How it is buit by the community. And the style of the current jumps

Screen Name Redacted

10/25/2021 08:30 PM

Close to home.



10/25/2021 09:21 DM

I love the big jumps.

Screen Name Redacted

10/25/2021 08:44 PM

You can make it what you want. All skill levels

Screen Name Redacted

10/25/2021 09:20 PM

non-dangerous jumps. The rules that were already posted about jumps were great and kept the park safe ... some expert riders seemed to reshape jumps in ways that didn't fit the rules posted.

Screen Name Redacted

10/25/2021 09:38 PM

The center line run from the top to the 180 degree berm

Screen Name Redacted

10/25/2021 09:43 PM

The table tops

Screen Name Redacted

10/25/2021 09:46 PM

Big jump into the bowl or the first jump from the main line

Screen Name Redacted

10/25/2021 09:56 PM

Love the jumps

Screen Name Redacted

10/25/2021 10·16 PM

The hole trail

Screen Name Redacted

10/25/2021 10:18 PM

The variety of levels.

Screen Name Redacted

Screen Name Redacted

10/26/2021 12:22 AM

I enjoy the various sizes of jumps and the fact that they are tabletops, meaning that if I don't clear them fully, I can still roll across them as opposed to falling into a gap.

10/26/2021 07:09 AM

I like pretty much everything about the bike park. I love this park. I first discovered it when I went on a bike ride with some friends. It's a great community of kids and we all help eachother.

Screen Name Redacted

10/26/2021 07:42 AM

It's great the way it is, I like that it's available to multiple skill levels

Screen Name Redacted

Accessibility



10/26/2021 08:22 AM

Screen Name Redacted

10/26/2021 08:29 AM

That there is a bike park on MI

Screen Name Redacted

10/26/2021 09:47 AM

Many different levels of jumps

Screen Name Redacted

10/26/2021 09:54 AM

jumps

Screen Name Redacted

10/26/2021 10:25 AM

Proximity to my workplace, great family activity for my kids

Screen Name Redacted

10/26/2021 11:31 AM

smaller bumps and banked tracks

Screen Name Redacted

10/26/2021 11:39 AN

The smooth jumps, with good transitions. Progressive jumps. That the community maintains it. Convenient place to meet friends and practice riding.

Screen Name Redacted

10/26/2021 12:26 PM

communtity

Screen Name Redacted

10/26/2021 05:17 PM

The main jumps in the middle.

Screen Name Redacted

10/26/2021 04:55 PM

It is fun

Screen Name Redacted

10/26/2021 05:39 PM

Jumps

Screen Name Redacted

10/26/2021 07:49 PM

jump line

Screen Name Redacted

10/26/2021 09:29 PM

The trail guidance and obstacles provide great skill building for the

sport

Screen Name Redacted

10/26/2021 09:30 PM

Variety of jump lines and the friendly attitude of the people using it.

The birm and varied height jumps also make for a well rounded



space.

Screen Name Redacted

10/27/2021 03:55 PM

The simplicity and quick access to the top so I can do lots of reps for

practice

Screen Name Redacted

10/27/2021 06:32 PM

Natural feeling with options for most skill levels

Screen Name Redacted

10/27/2021 07:16 PM

Ability to practice bmx and mountain biking

Screen Name Redacted

10/27/2021 08·22 PM

Location and just the rollers

Screen Name Redacted

10/27/2021 08:41 PM

Just learned about it

Screen Name Redacted

10/27/2021 10:14 PM

It is on the island

Screen Name Redacted

10/28/2021 07:17 AM

Answering this survey for my 7 yr old son. We just love that this park exists on the island at all! And as my son gets older, we know for a fact that he'll use the park!

Screen Name Redacted

10/28/2021 07:18 AM

I like the big blue step up line

Screen Name Redacted

10/28/2021 07:36 AM

Something for everyone. Varied jumps. Trails were cool though $\ensuremath{\mathsf{I}}$

know they were out of boundaries.

Screen Name Redacted

10/28/2021 09:00 AM

I haven't been able to go recently but saw a video and it all looked good. In general, anything that does not require clearing a gap is

good.

Screen Name Redacted

10/28/2021 10:02 AM

Ease of access

Screen Name Redacted

10/28/2021 12:29 PM

I like the main line. The whole park is good



10/28/2021 01:57 PM

the smaller jumps mostly and bumps around the edge. We like to go

when noone is there so we can explore without pressure

Screen Name Redacted

10/28/2021 02:14 PM

It gives kids the opportunity to build, fail, and learn.

Screen Name Redacted

10/28/2021 03:37 PM

I practice cyclocross skills

Screen Name Redacted

10/28/2021 04:03 PM

Everything

Screen Name Redacted

10/28/2021 09:06 PM

It's a great park for my kids ages 3 and 12. They both enjoy the ramps and we feel very safe there to ride our bikes in the forest.

Screen Name Redacted

10/28/2021 10:55 PM

Banked turns and jumps

Screen Name Redacted

10/29/2021 06:13 AM

Community for kids and new riders

Screen Name Redacted

10/29/2021 02:08 PM

I like the jumps and enjoy them ALOT

Screen Name Redacted

10/29/2021 02:42 PM

Accessible

Screen Name Redacted

10/29/2021 03:16 PM

Jumps

Screen Name Redacted

10/29/2021 05:02 PM

Χ

Screen Name Redacted

10/30/2021 12·18 PM

The jumps at Snake Hill are very well built and are great for

progressing my skills.

Screen Name Redacted

10/30/2021 12:21 PM

I like the berms and other features that makes riding smooth and very

"flowy"



10/31/2021 05:33 PM

Jumps

Screen Name Redacted

11/01/2021 11:41 AM

Fun hills

Screen Name Redacted

11/01/2021 04·27 PM

Jumps and Bermed Corner at the end.

Screen Name Redacted

11/01/2021 05:17 PM

The slopes are so fun!

Screen Name Redacted

11/01/2021 06:02 PM

like the jumps and the ramps and the banked circle at the bottom

Screen Name Redacted

11/01/2021 08:48 PM

Jumps

Screen Name Redacted

11/01/2021 09:34 PM

The jumps

Screen Name Redacted

11/03/2021 11:59 AM

test

Screen Name Redacted

11/04/2021 03:57 PM

its accessible and local

Screen Name Redacted

11/04/2021 04:19 PM

The jumps and the option to build jumps

Screen Name Redacted

11/04/2021 04:31 PM

Jump runs for the kids

Screen Name Redacted

11/04/2021 04:33 PM

It's a place I can hang out with friends outside exercise.

Screen Name Redacted

11/04/2021 04:49 PM

I am practicing jumping techniques to be a better trail rider in the local

mountains

Screen Name Redacted

11/04/2021 05:08 PM

There are a couple of trail runs with fun jumps. It has helped me become a better mountain biker while getting exercise and seeing



friends.

Screen Name Redacted

11/04/2021 05:42 PM

modifiable jumps and lines, independent, creative work

Screen Name Redacted

11/04/2021 07:38 PM

different from other places on mercer island, can try different things

Screen Name Redacted

11/04/2021 08:05 PM

Mountain bike features

Screen Name Redacted

11/05/2021 10:04 AM

The jumps we make

Mandatory Question (95 response(s))

Question type: Single Line Question

What elements of the current jump lines do you not like?

Screen Name Redacted

10/25/2021 04:59 PM

Screen Name Redacted

10/25/2021 05:00 PM

Lack of a dedicated walk up line puts you in harms way of other riders. Also seems it would make sense to have a path to get to the top from the road vs. going down the shared path on a steep hill.

Screen Name Redacted

10/25/2021 05:08 PM

Flow line but it would be good if it stayed

Screen Name Redacted

10/25/2021 05:40 PM

Wish they could be longer

Screen Name Redacted

10/25/2021 05:43 PM

Not enough

Screen Name Redacted

10/25/2021 05:43 PM

No strong opinion here

Screen Name Redacted

10/25/2021 05:45 PN

walking up the jump trail instead of a having a biking back up path



10/25/2021 05:49 PM

poorly designed landing areas

Screen Name Redacted

10/25/2021 05:51 PM

No organized routes graded by ability allowing you to know which route to stay on and which ones you would be capable of doing.

Screen Name Redacted

10/25/2021 05·59 PM

I'm really just happy that we have jumps on the island.

Screen Name Redacted

10/25/2021 06:02 PM

nothing really

Screen Name Redacted

10/25/2021 06:26 PM

None they are perfect

Screen Name Redacted

10/25/2021 06:28 PM

They are perfect as they are

Screen Name Redacted

10/25/2021 06:51 PM

At the middle of the main line there isn't a lot of variety on where you can go.

Screen Name Redacted

10/25/2021 06:51 PM

We need more of a verity of jumps, larger and smaller jumps. We need trick jumps, jumps that are tall with a landing higher than the take off.

Screen Name Redacted

10/25/2021 07:13 PM

The small area at the top of the main jump line. It is way too small for

more than 4 people at once.

Screen Name Redacted

10/25/2021 07:32 PM

more symmetrical take-off/landing angles; clean lip edge

Screen Name Redacted

10/25/2021 07:35 PN

Lack of rules or regulations

Screen Name Redacted

10/25/2021 07:38 PM

N/A

Screen Name Redacted

10/25/2021 07:47 PM

nasty neighbors



10/25/2021 07:54 PM

None

Screen Name Redacted

10/25/2021 08·15 PM

Wish the jumps would be reopened and we had more freedom to

design the jumps

Screen Name Redacted

10/25/2021 08:16 PM

Dust

Screen Name Redacted

10/25/2021 08·18 PM

It's hard to practice and get better at biking with only one jump line

Screen Name Redacted

10/25/2021 08:18 PM

Nothing, for the space that is there thats the most they can do

Screen Name Redacted

10/25/2021 08:30 PM

Mellow jumps

Screen Name Redacted

10/25/2021 08:31 PM

I don't like the big hill to the left.

Screen Name Redacted

10/25/2021 08:44 PM

Many jumps aren't great for beginners

Screen Name Redacted

10/25/2021 09:20 PM

jumps that undermined the mature trees root system. Trees are important and add to the overall ambiance and fun of the bike park.

Please don't remove trees!

Screen Name Redacted

0/25/2021 09:38 PM

none

Screen Name Redacted

10/25/2021 09:43 PM

I'm a beginner - some are to big for me

Screen Name Redacted

10/25/2021 09:46 PM

quality of the dirt / sand

Screen Name Redacted

10/25/2021 09:56 PM

Its all great



10/25/2021 10:16 PM

None

Screen Name Redacted

10/25/2021 10:18 PM

None

Screen Name Redacted

10/26/2021 12:22 AM

Blackberry bushes surround the lines and sometimes reaches into the air above the jump path. This prevalent in the line with the rollers.

Screen Name Redacted

10/26/2021 07:09 AM

There is nothing there that I don't like.

Screen Name Redacted

10/26/2021 07:42 AM

Short!

Screen Name Redacted

10/26/2021 08·22 AM

NA

Screen Name Redacted

10/26/2021 08:29 AM

More and Better Need more Blue level jumps for MTB riders.

Screen Name Redacted

10/26/2021 00·47 AM

Too small

Screen Name Redacted

10/26/2021 09:54 AM

too small. no trails.

Screen Name Redacted

10/26/2021 10:25 AM

Too small! Bikes are a large and growing part of the culture here, we need to dedicate more resources to it.

Screen Name Redacted

10/26/2021 11:31 AM

Large jumps. Downhill sled ride.

Screen Name Redacted

10/26/2021 11:39 AM

Limited size. Dangerous and ugly boundary markers

Screen Name Redacted

10/26/2021 12:26 PM

nothing

Screen Name Redacted

The ant hill jump to the right side of the main jump line by a tree. It's



10/26/2021 05·17 PM

really sandy and out of shape.

Screen Name Redacted

10/26/2021 04:55 PM

Nothing

Screen Name Redacted

10/26/2021 05:39 PM

Screen Name Redacted

10/26/2021 07:49 PM

flow

Screen Name Redacted

10/26/2021 09:29 PM

There's nothing specific that I don't like

Screen Name Redacted

10/26/2021 09:30 PM

They are mostly table tops. I would like to see some gap jumps too.

Screen Name Redacted

10/27/2021 03:55 PM

Second jump not a flat table, but I don't care that much because most

people like it

Screen Name Redacted

10/27/2021 06:32 PM

Limited area could be bigger

Screen Name Redacted

10/27/2021 07:16 PM

Different levels from novice to expert

Screen Name Redacted

10/27/2021 08:22 PM

Don't do big jumps

Screen Name Redacted

10/27/2021 08:41 PM

Just learned about it

Screen Name Redacted

10/27/2021 10:14 PM

N/a

Screen Name Redacted

10/28/2021 07:17 AM

None

Screen Name Redacted

10/28/2021 07:18 AN

8. The first jumps lip is to poppy so then you can't get enough speed for the second jump; there are a couple of breaking bumps that could

be filled in



10/28/2021 07:36 AM

Not much space for return to top. Conditions vary wildly.

Screen Name Redacted

10/28/2021 09:00 AM

gaps

Screen Name Redacted

10/28/2021 10:02 AM

Not wide enough

Screen Name Redacted

10/28/2021 12:29 PM

I like everything except there needs to be more space for more jumps

Screen Name Redacted

10/28/2021 01:57 PM

Some are way too big for anyone in my family

Screen Name Redacted

10/28/2021 02:14 PM

Too rough for younger kids, but I think it is great the teens can

experiment.

Screen Name Redacted

10/28/2021 03:37 PM

no comment

Screen Name Redacted

10/28/2021 04:03 PM

Everything

Screen Name Redacted

10/28/2021 09:06 PM

We like the jumps the way they are

Screen Name Redacted

10/28/2021 10:55 PM

It's too small. Expand it!

Screen Name Redacted

10/29/2021 06:13 AM

All levels of skill should be included

Screen Name Redacted

10/29/2021 02:08 PM

Would like to see more jumps and features

Screen Name Redacted

10/29/2021 02:42 PM

Nothing it's great



Screen Name Redacted

Too big for younger and beginning riders

10/29/2021 03:16 PM

Screen Name Redacted

10/29/2021 05:02 PM

Χ

Screen Name Redacted

10/30/2021 12:18 PM

The only problem is that there are thorns on the far right or the trail.

Other than that, nothing.

Screen Name Redacted

10/30/2021 12:21 PM

nothing I love them

Screen Name Redacted

10/31/2021 05:33 PM

Would like to see a smaller line

Screen Name Redacted

11/01/2021 11:41 AM

Wish there was a separate return path to the top

Screen Name Redacted

11/01/2021 04:27 PM

The return line to the top could be better positioned

Screen Name Redacted

11/01/2021 05·17 PM

I can't think of anything except I don't like that the park is currently

closed.

Screen Name Redacted

11/01/2021 06:02 PM

some of the jumps are a little tall/steep. Some of the dips are a little

low and can gather puddles

Screen Name Redacted

11/01/2021 08:48 PM

People who say bikes arent allowed in the park

Screen Name Redacted

11/01/2021 09:34 PM

None

Screen Name Redacted

11/03/2021 11:59 AM

test

Screen Name Redacted

11/04/2021 03:57 PM

it is not challenging enough, it does not accelerate as one improves, there is nothing to work towards, the jumps are not challenging

enough



Screen Name Redacted

11/04/2021 04:19 PM

none

Screen Name Redacted

11/04/2021 04:31 PM

not a lot of options for beginners

Screen Name Redacted

11/04/2021 04:33 PM

not sure

Screen Name Redacted

11/04/2021 04:49 PM

It would be nice if there were more options

Screen Name Redacted

11/04/2021 05:08 PM

None.

Screen Name Redacted

11/04/2021 05:42 PM

some are too big to use for my skill

Screen Name Redacted

11/04/2021 07:38 PM

i like that we have it; would like to see different things though

Screen Name Redacted

11/04/2021 08:05 PM

None

Screen Name Redacted

11/05/2021 10:04 AM

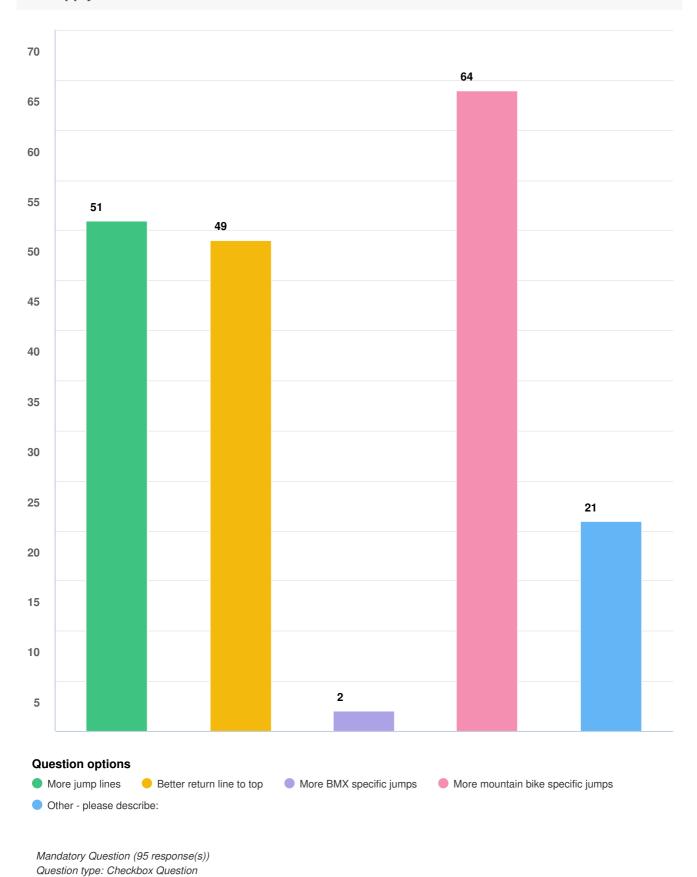
Na

Mandatory Question (95 response(s))

Question type: Single Line Question

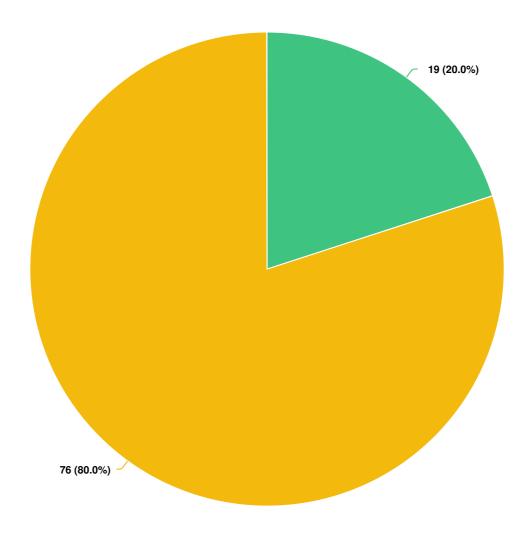


Q9 If new jump lines/features were added, what would you like to see considered?Choose all that apply





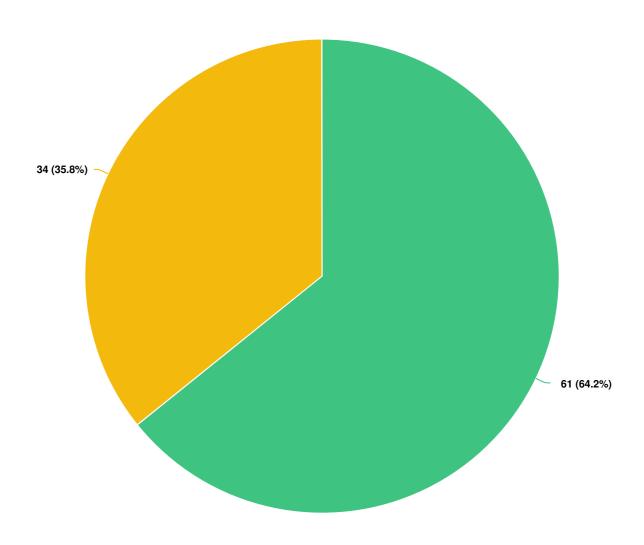
Q10 Are you involved with the jump shaping/building efforts at the current bike park?







Q11 If new jump lines were designed, would you be interested in assisting with the initial build process?

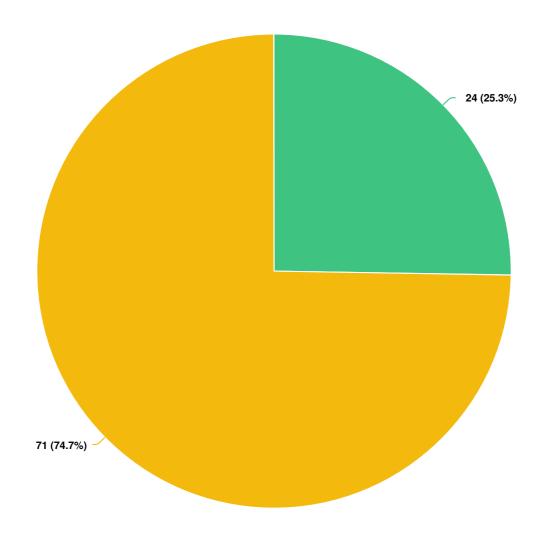


Question options

Yes
No



Q12 Do you ride at any off-island facilities/parks?

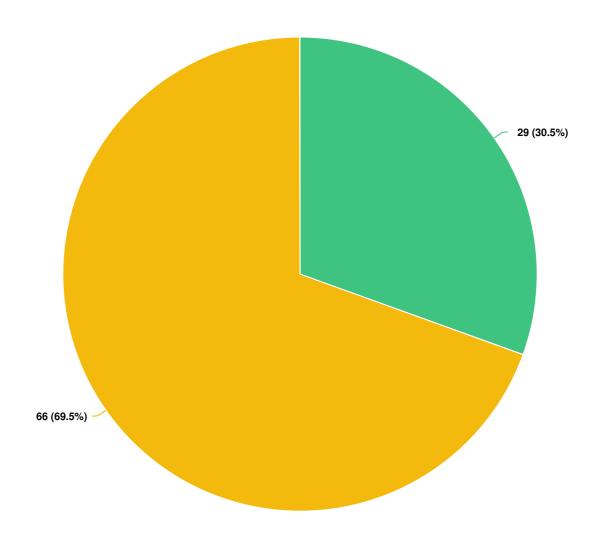


Question options

NoYes (Please list which ones)



Q13 Do you participate in other City recreation programs or use other Mercer Island parks?

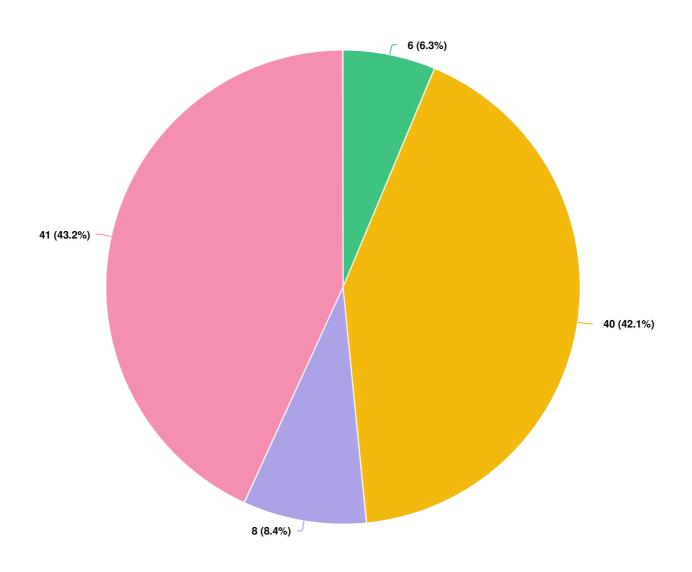


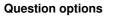
Question options

No Yes - please list which ones



Q14 What is your age?

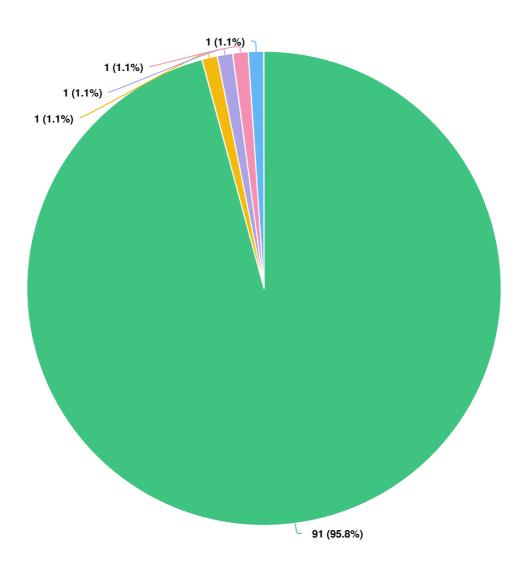


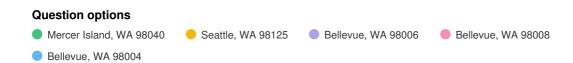


Under 1010-1617-25Over 25



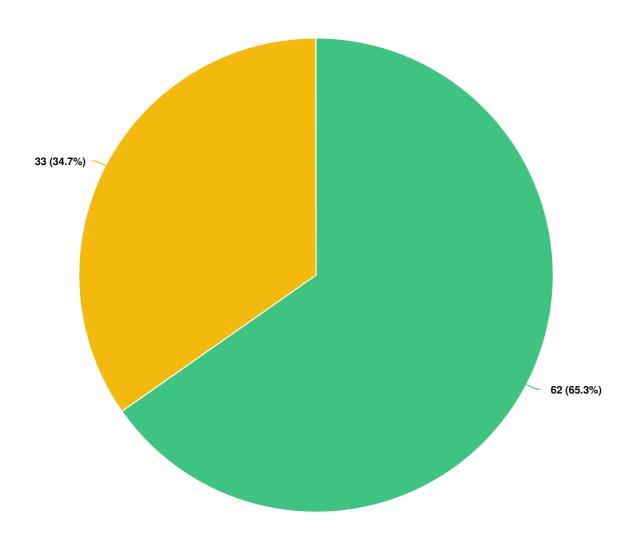
Q15 What is your home zip code?







Q16 Would you like us to stay in touch with you?



Question options

No, please keep my survey anonymous
Yes, please! Here's my contact info:

Optional question (95 response(s), 0 skipped) Question type: Radio Button Question

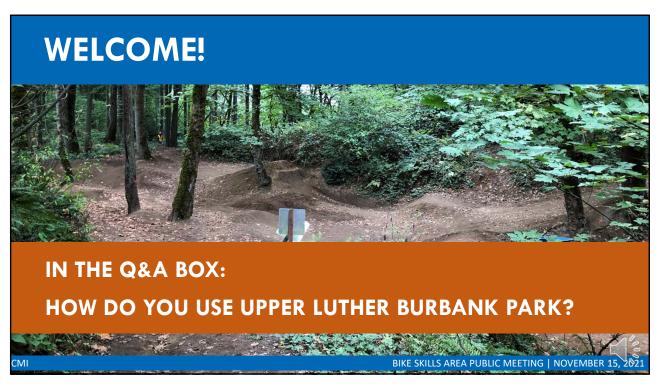


UPPER LUTHER BURBANK PARK BIKE SKILLS AREA PUBLIC MEETING

NOVEMBER 15, 2021



1



MEETING AGENDA

- Project overview
- Team introduction
- Assessment
- Survey results
- Initial findings
- Preliminary recommendations
- Next steps
- Q & A



IMC

3

PROJECT OVERVIEW

- Bike Skills Area (BSA) has long history!
- Interest & use have increased
- Ongoing issues with course expansion, new trails, and large jump building
- Maintenance exceeded staff capacity
- Contacted Evergreen Mtn Bike Alliance
- Extended search for qualified consultant
- Fall 2021 temporary shutdown



BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 202

CMI

TEAM INTRODUCTION



ACTION Sports Design, LLC

Professional planning, design and development of public bike parks, BMX Racetracks and skateparks worldwide.

Mike McIntyre, PLA- Founder/ Principal/ Rider









CMI

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15,

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BSA ASSESSMENT



Site assessment



- Course/jump layout
- Circulation patterns
- Surrounding area
- Drainage

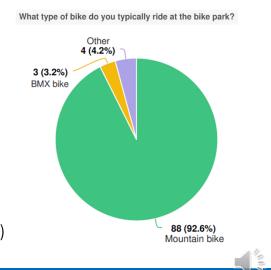
- Tree assessment
- Topographic survey
- Operational assessment
- Rider surveys



RIDER SURVEY RESULTS

- Heaviest use in summer, afternoons
- Most riders bike to the park (81%)
- 75% also ride off-island
- Majority want:
 - more mountain bike specific jumps
 - more jumplines
 - better return line to session pad

• Most riders 10-16 (42%) or over 25 (43%)



BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15,

7

RIDER SURVEY COMMENTS

What features do you like?

- Nice variety of skill levels
- Close to home, easy to get to
- Great source of exercise and skill building

What don't you like about current jumplines?

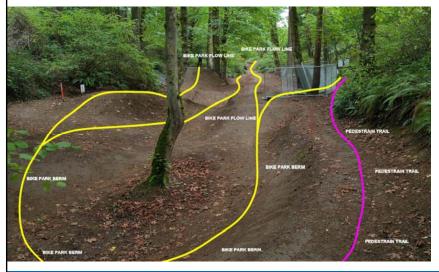
- Lack of dedicated return line to top
- Need more jumps for beginners, young riders
- Really like it just as it is!



BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 202

CIV

INITIAL FINDINGS | Circulation issues



Current conditions:

- Main trail to BSA shared with pedestrians
- Unprotected interface between BSA & pedestrian trail on west side
- Low visibility to other users on trails
- Entry trail to BSA is very steep

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15,

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INITIAL FINDINGS | Circulation issues



Current conditions:

- Main trail to BSA shared with pedestrians
- Unprotected interface between BSA & pedestrian trail on west side
- Low visibility to other users on trails
- Entry trail to BSA is very steep

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 202

POLLING QUESTION | Trail issues

How would you like to see trail circulation issues addressed in Upper Luther Burbank Park?

- Create dedicated trail for bikers to access session pad
- Require bikers to walk bikes on trails to BSA
- Add barrier between bike area and hiking trail on west side of BSA
- No changes are needed
- Other (please describe in Q&A box)



CMI

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15,

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INITIAL FINDINGS | Expansion & excavation



- Jumps are constructed from on-site fill
- Surrounding slopes have been dug out to 'borrow' fill for jump building
- Excavation on edges of BSA has resulted in:
 - Undermining/instability in adjacent slopes
 - Damaged/removed vegetation
 - Active erosion



INITIAL FINDINGS | Soils



Jumps are built from adjacent hillside 'borrow'

Native, on-site soils aren't suited for jump building

- High organic content → organics break down, creating uneven surface
- Sand content → difficult to compact
- Non-uniform texture → soil settles unevenly
- Low clay content → jumps do not hold shape over long periods, higher erosion

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15,

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INITIAL FINDINGS | Grading issues



White line shows natural site grade

Red areas are significant borrow areas - grade is cut very low

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 282

INITIAL FINDINGS | Drainage



- Use of on-site soils to build jumps is creating low spots where soil is 'borrowed'
- Currently, there is no positive drainage off the site
- Water is pooling in low spots, creating standing water in several areas across BSA
- Limits winter use of site

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 262

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INITIAL FINDINGS | Tree assessment



- Trees closest to and within active use area declining
- Likely causes:
 - Root damage from digging
 - Soil compaction
 - Grade changes
- Accelerated by hot, dry weather
- Four trees slated for removal, remaining trees to be monitored regularly

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 202

INITIAL FINDINGS | Jumpline layout



Current course layout:

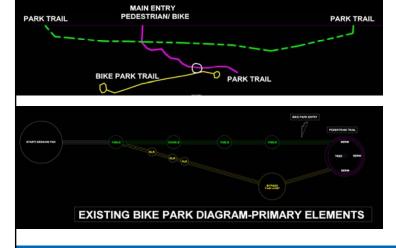
- One primary jumpline with four jump features
- Turnaround berm
- Return line (overlaps with jumpline at Jump 1)

Can fit additional jumplines and dedicated return line in existing space

SD

17

INITIAL FINDINGS | Jumpline layout



Current course layout:

- One primary jumpline with four jump features
- Turnaround berm
- Return line (overlaps with jumpline at Jump 1)

Can fit additional jumplines and dedicated return line in existing space

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 202

INITIAL FINDINGS | Jump shape & design

Primary jumps:

- 3 tabletops
- 1 double
- 3 rollers

Main concern is connecting drainage swales and sides of jumps and connecting to adjacent native grades.

- Avoid deep fall zones adjacent to jumps
- Get water off riding surface fast and out of bike park

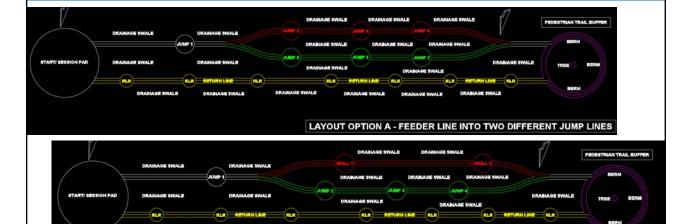
Jumps can be improved to maximize space & skill building

ASD

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 26

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INITIAL FINDINGS | Jumpline layout options



LAYOUT OPTION B - FEEDER LINE INTO ONE JUMP LINE AND ONE SKILLS LINE

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 202

POLLING QUESTION | Jumpline layout options

Which jumpline layout do you prefer?

- Layout A Feeder line into two different jumplines
- Layout B Feeder line into one jumpline and one skills line

CMI

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15,

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INITIAL FINDINGS | Signage



- Current signage is out of date!
- New signage will be redesigned and updated to reflect changes implemented from this assessment and guidance from City's insuring agency
- Still evaluating the use of Course Boundary markers

Many possibilities for how new signage is designed and what it covers!

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15

POLLING QUESTION | Signage

What new signage would you like to see in Upper Luther Burbank Park?

(choose all that apply)

- Updated rules and regulations
- Map showing hiking and biking trails throughout park
- Map showing BSA course layout and jump line skill levels
- Minimize signage at this site as much as possible
- Other (please describe in Q&A box)

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BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15,

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PRELIMINARY RECOMMENDATIONS



- Jumps will be professionally designed & maintained in their designed form
- Bike Skills Area will remain within existing footprint
- Restore soil to undercut hillsides and tree root zones
- Recommendations are likely to include:
 - Install drainage system
 - Import appropriate soil for designed jumps
 - Improve quality & layout of jumps
 - Create return line to session pad
 - Create clear wayfinding signage

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 28

SO, WHAT'S NEXT?

Q 2nd user survey – focus on jump design/ layouts and profiles

Stabilize undercut hillsides

♦ Replant native shrubs and trees (possible volunteer event)

Finalize assessment report and recommendations

City implements design recommendations (possible volunteer event)

b BSA re-opens

CMI

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15,

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KEEP IN TOUCH!

- Subscribe to Let's Talk page for notifications about upcoming engagement opportunities
- Add yourself to the contact list for this project send contact information to <u>publicworks@mercerisland.gov</u>

Thank you for staying involved with this project!

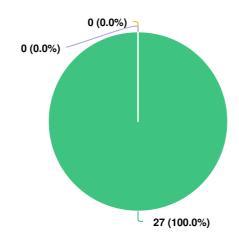
CMI

BIKE SKILLS AREA PUBLIC MEETING | NOVEMBER 15, 202





Q1 What type of bike do you typically ride at the bike park?

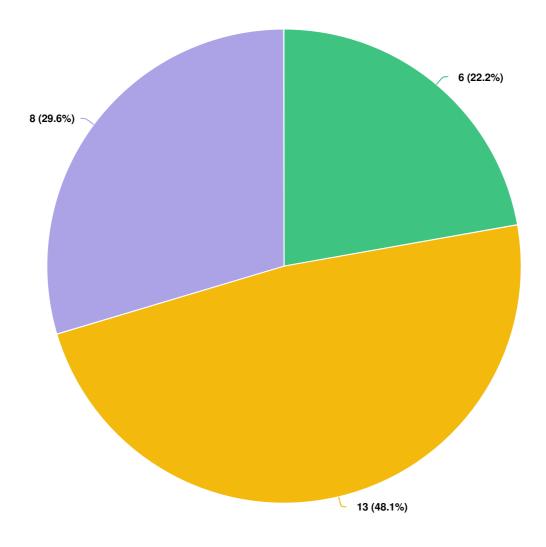


Question options

Mountain bikeBMX bikeOther (please specify)



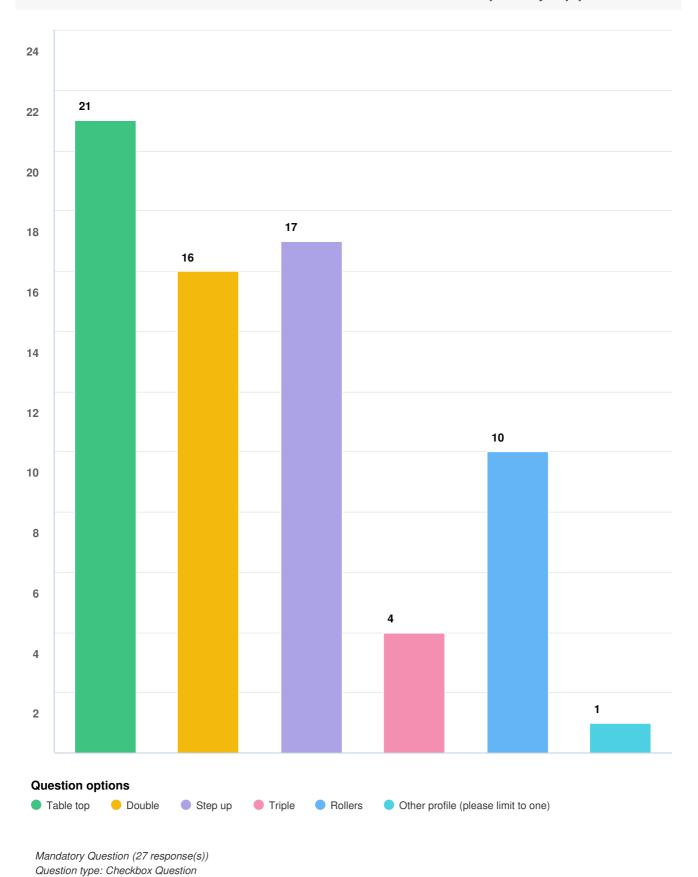
Q2 How would you describe your skill level for riding on dirt jumps?





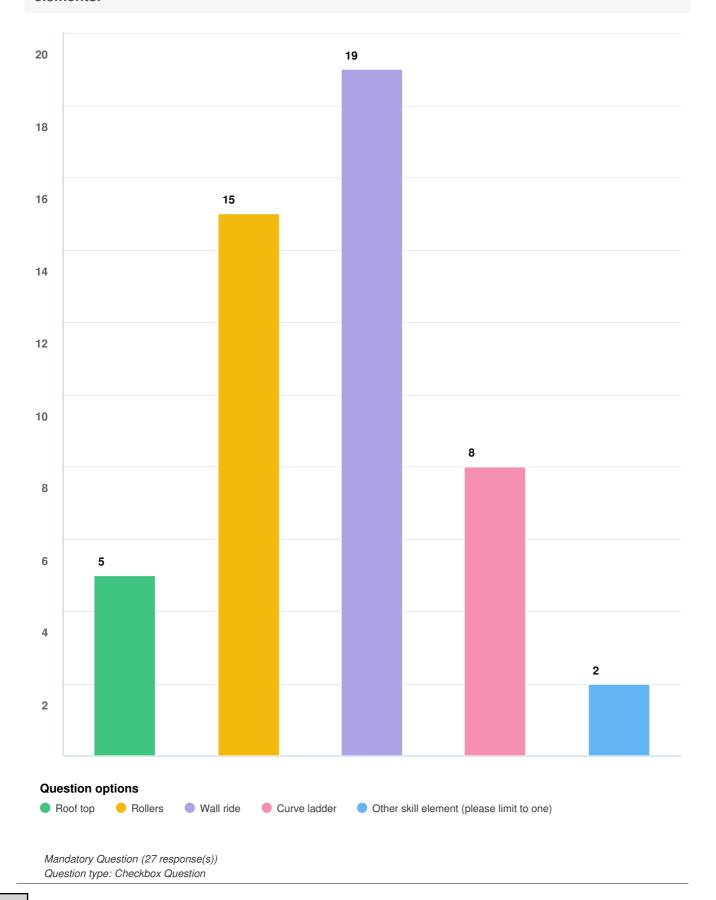


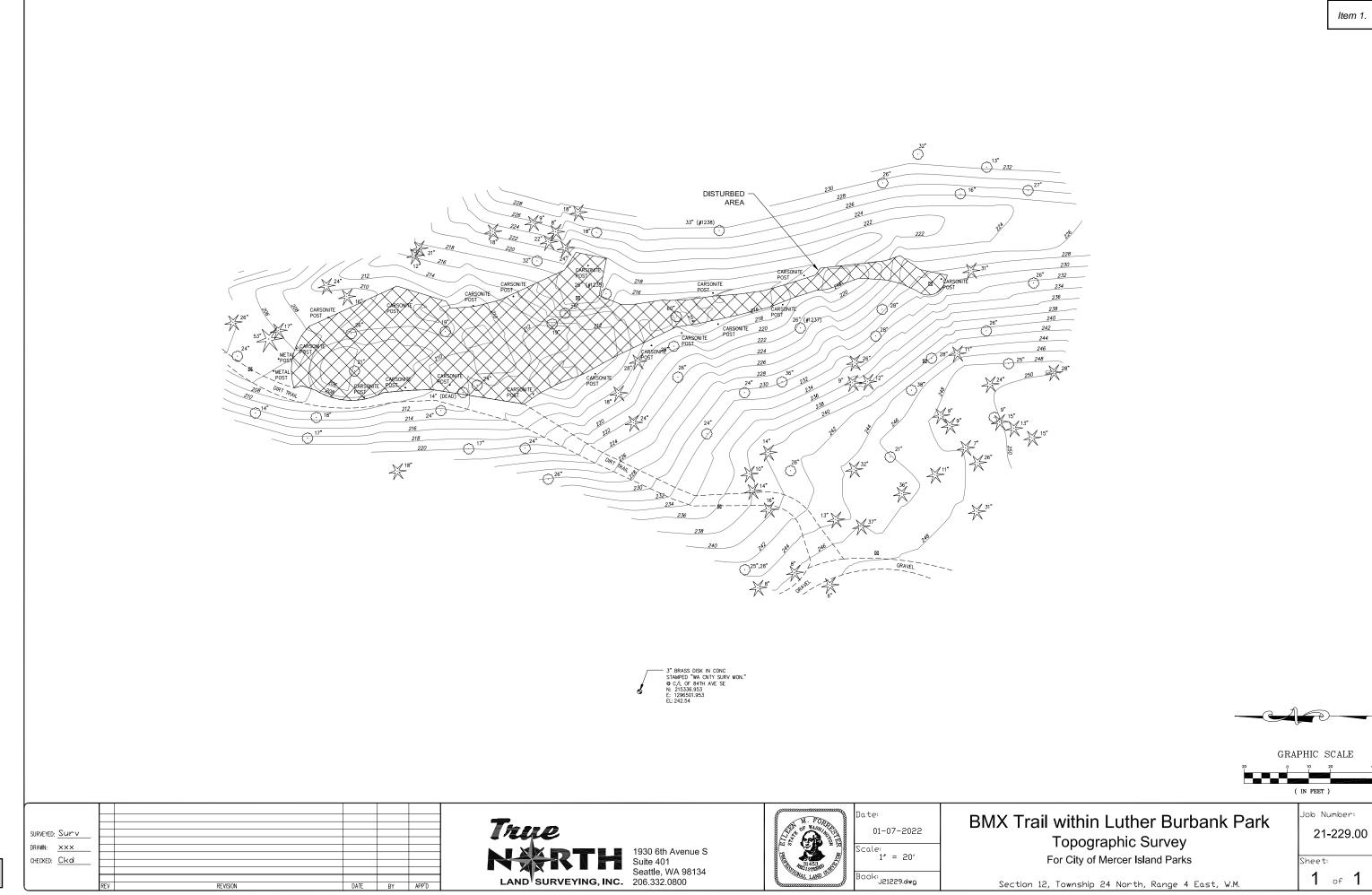
Q3 Please indicate the three dirt jump profiles that you would be most interested in seeing included at the Bike Skills Area. See the illustration below for examples of jump profiles.

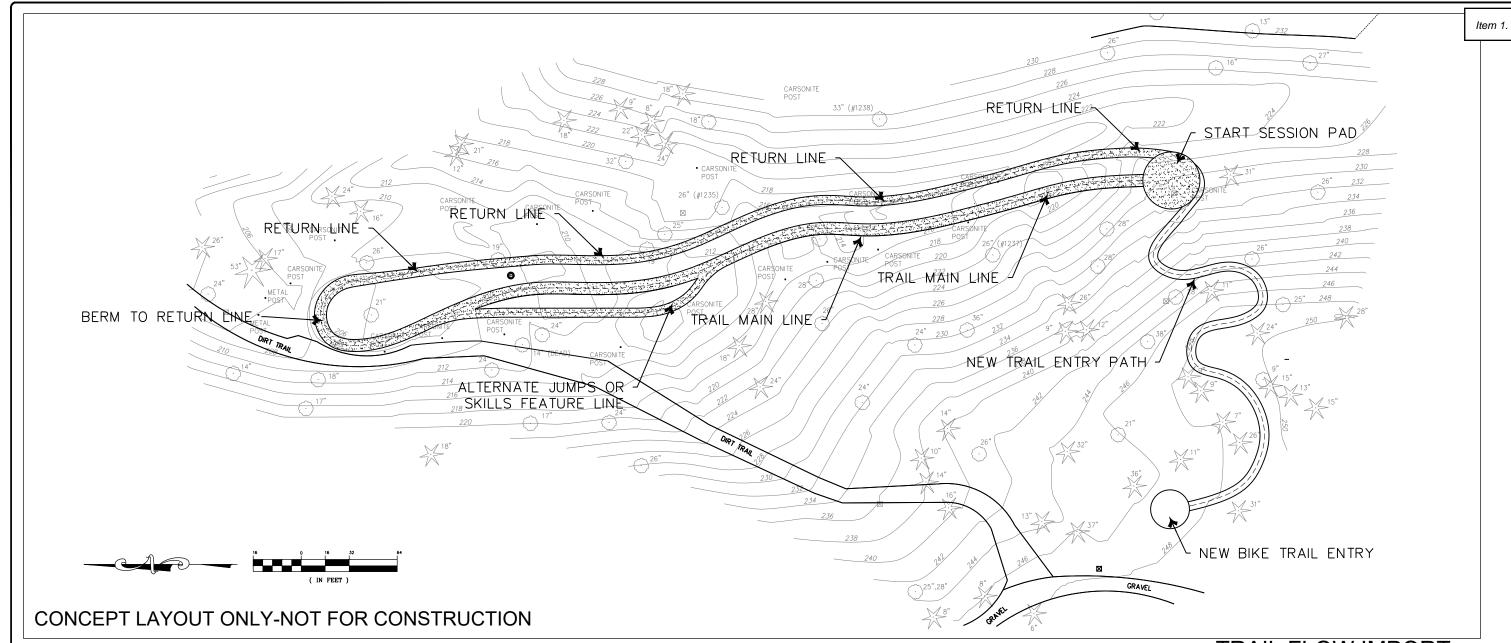




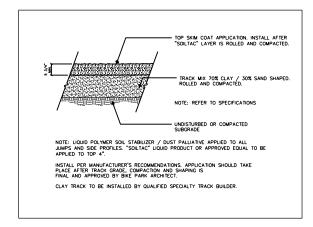
Q4 Please indicate the two manufactured skill elements that you would be most interested in seeing included at the Bike Skills Area. See the illustration below for examples of skill elements.







TRAIL FLOW IMPORT

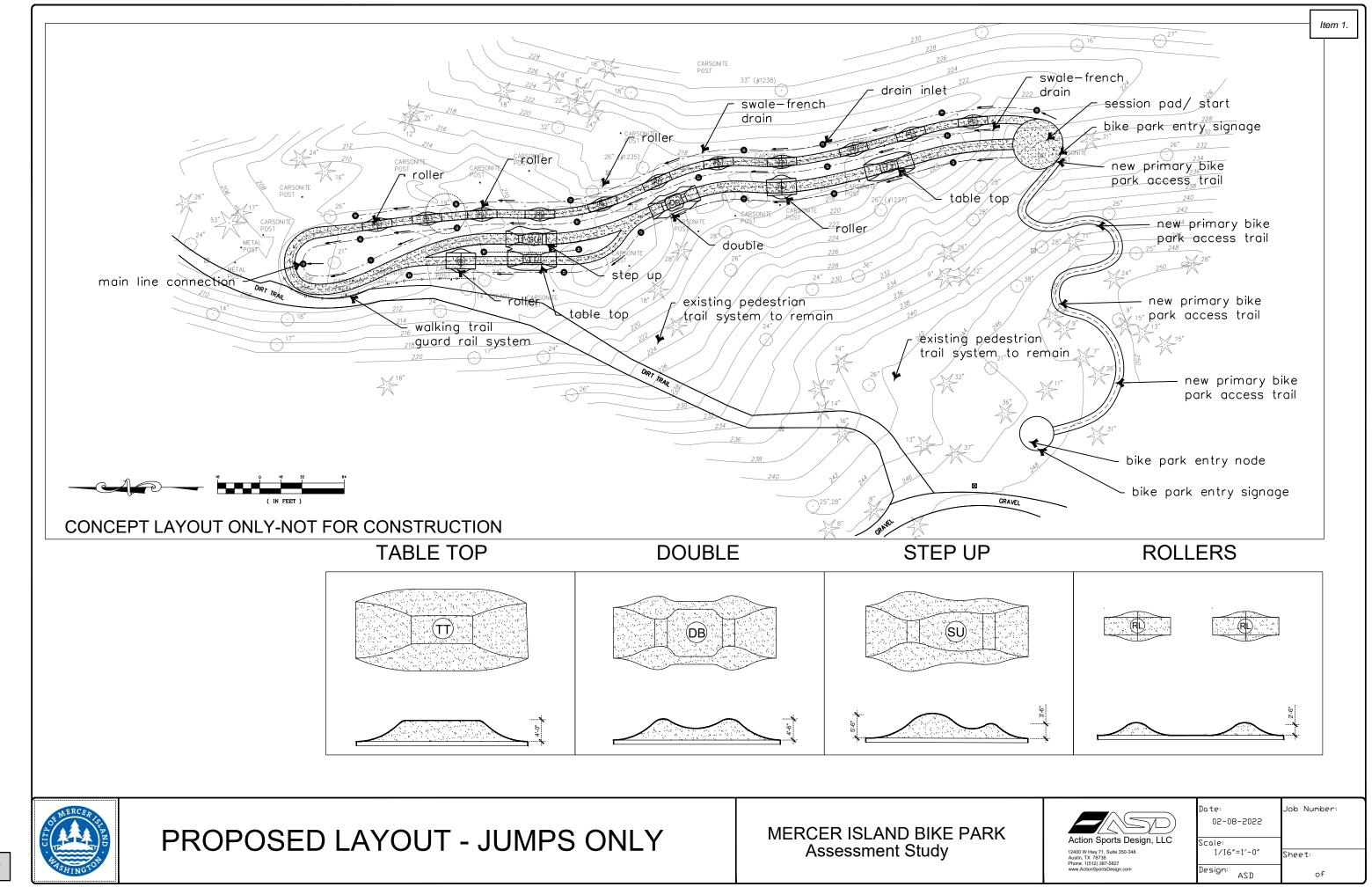


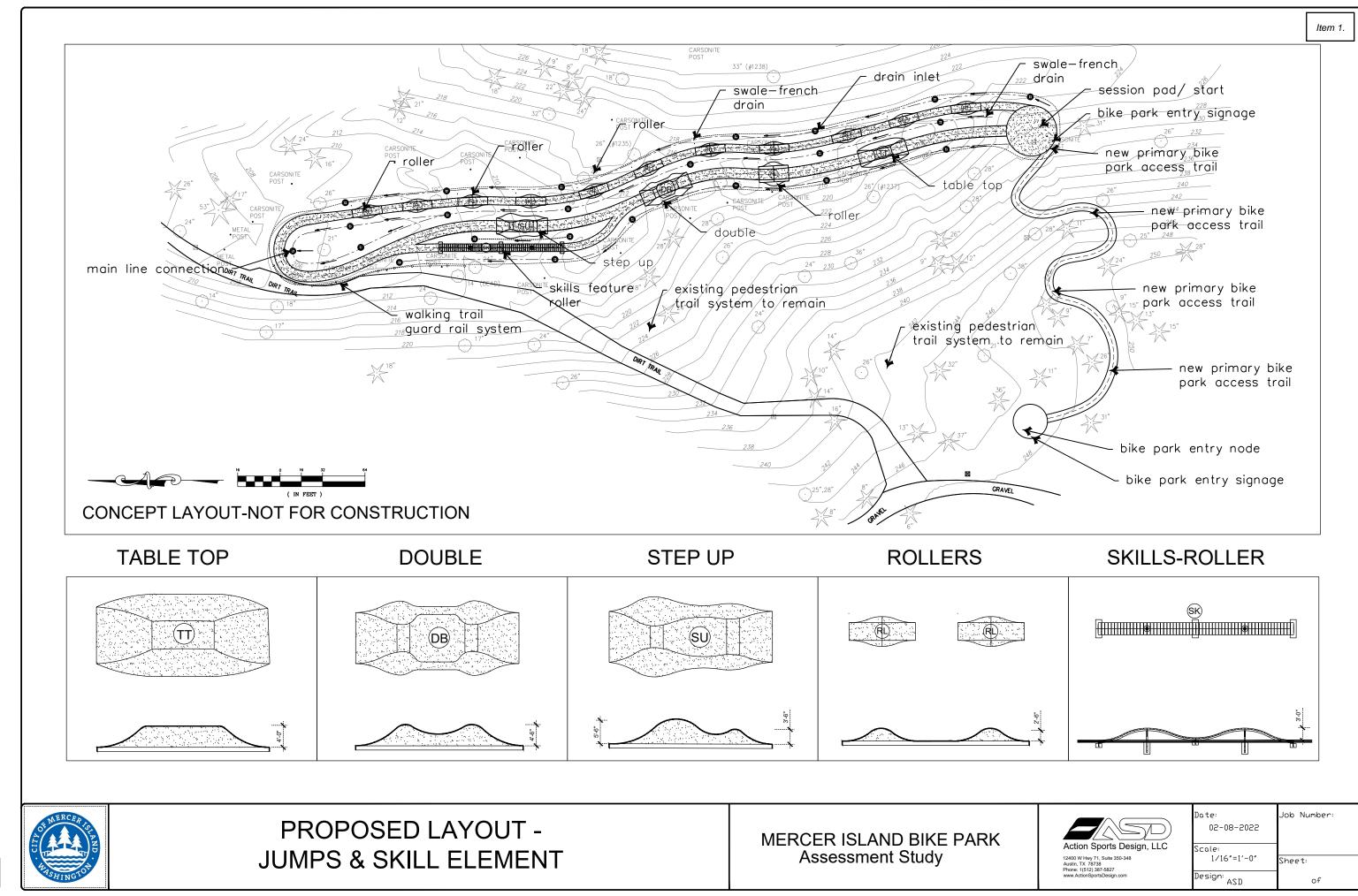


PROPOSED TRAIL FLOW LAYOUT

MERCER ISLAND BIKE PARK Assessment Study



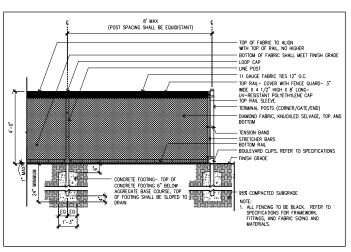




BERM PROFILE-TEMPLATE

ENSTING GRADE PT SCOPY TO DRIAN PT SCOPY TO DRIAN PROPOSED F, MATERIA WHEES REFER TO FLAGS PROPOSED F, MATERIA WHEES REFER TO FLAGS WHO FORM STLAK [199]

FENCING PROTECTION





PROPOSED LAYOUT - JUMPS & SKILL ELEMENT

MERCER ISLAND BIKE PARK
Assessment Study

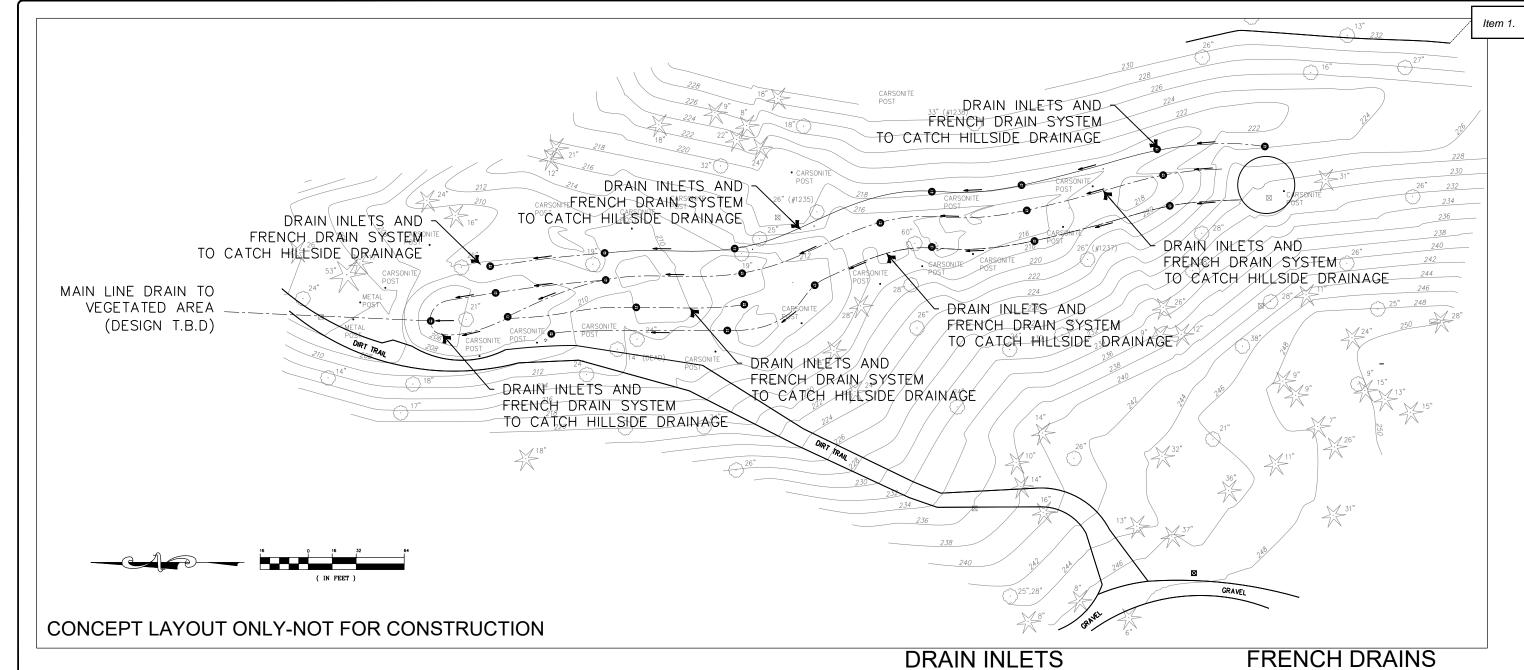


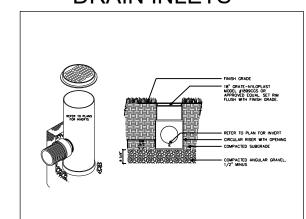
Date: Job Number:

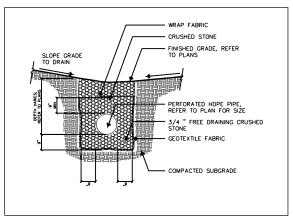
02-08-2022

Scale:
1/16"=1'-0" Sheet:

Design: ASD of









BIKE PARK DRAINAGE CONCEPT

MERCER ISLAND BIKE PARK **Assessment Study**



Job Number)ate: 02-08-2022 cale: 1/16"=1'-0" heet: Design: ASD

PROPOSED RULES AND REGULATIONS FOR FUTURE PARK SIGNAGE

BIKE PARK HOURS ARE 8 AM TO DUSK

- Use at your own risk. This course is not supervised.
- Use of protective equipment, including securely fastened helmets, knee and elbow pads, wrist and shin guards, is strongly recommended.
- Riders will remain inside course boundary. Ride only on the tracks surface the way that it was intended to be used.
- No riding if the track is muddy, wet, or if it is raining.
- No skidding. Over-braking is only allowed in emergency situations.
- No motorized vehicles are permitted on the course.
- No spectators or other non-riders allowed on the course.
- Ride respectful. Be aware of other riders.
- Ride within your comfort zone.
- Be respectful of other park users: moderate your language, keep music volume down and use trash containers provided.
- Ramps, jumps and other bike course elements may not be modified. Any unauthorized additions will be removed without further notice.
- Damage to surrounding vegetation or other park property is prohibited.
- Smoking, alcohol, drugs and glass containers are not permitted.
- Failure to comply with rules or City staff instruction may result in expulsion from the facility.
- Serious injury or death may result from falling or colliding with objects or other riders. The City of Mercer Island does not assume responsibility for injuries. **Use at your own risk!**

In the event of any unsafe condition contact the City of Mercer Island Parks and Recreation Department 206.275.7609 or via email at miparks@mercergov.org

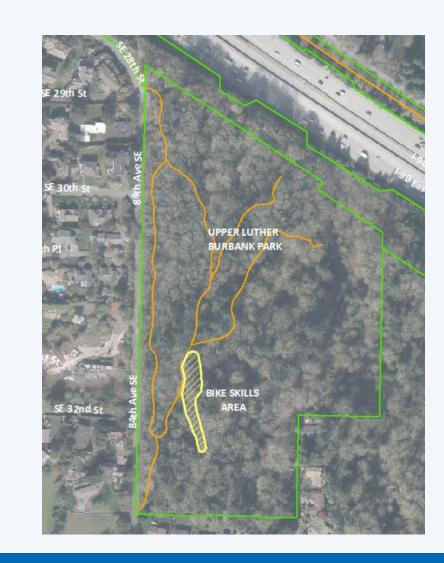


Bike Skills Area Assessment

Parks & Recreation Commission April 26, 2022

Bike Skills Area Background

- Created in 1970s, on King County park land
- Use of the area has increased/decreased over the years
- In 2003, park transferred to City
- Luther Burbank Master Plan adopted in 2006, specified that the 'bike track would remain'
- No survey of area conducted





Bike Skills Area Background



BSA, March 2012

- Since 2006, City has managed BSA
- 2016 use of site increased, began to expand
- Boundary markers installed to delineate edges
- Use continued to increase during COVID
- Since 2020, has required extensive staff oversight
 - Large jumps
 - Unauthorized trails
 - Expansion into adjacent slopes
 - Damage to vegetation
- October 2021, BSA closed to address safety & operation issues



Project Background

- City hired Action Sports Design (ASD) to perform assessment of the BSA
 - Condition assessment
 - Areas of concern
 - Recommendations for improved design and operation
- Focus on site safety and sustainability
- Report received late March 2022

UPPER LUTHER BURBANK PARK BIKE SKILLS AREA ASSESSMENT

MARCH 2022



Report Prepared For

City of Mercer Island 9611 SE 36th Street Mercer Island, WA 9804 Report Prepared By:

Action Sports Design, LLC 12400 W Hwy 71, Suite 350-34 Austin, TX 78738



Public Engagement Since Closure



- Let's Talk page
- Online surveys
 - General BSA user information
 - Jump design
- Public meeting November 2021
- Public comments



ASD Assessment Results

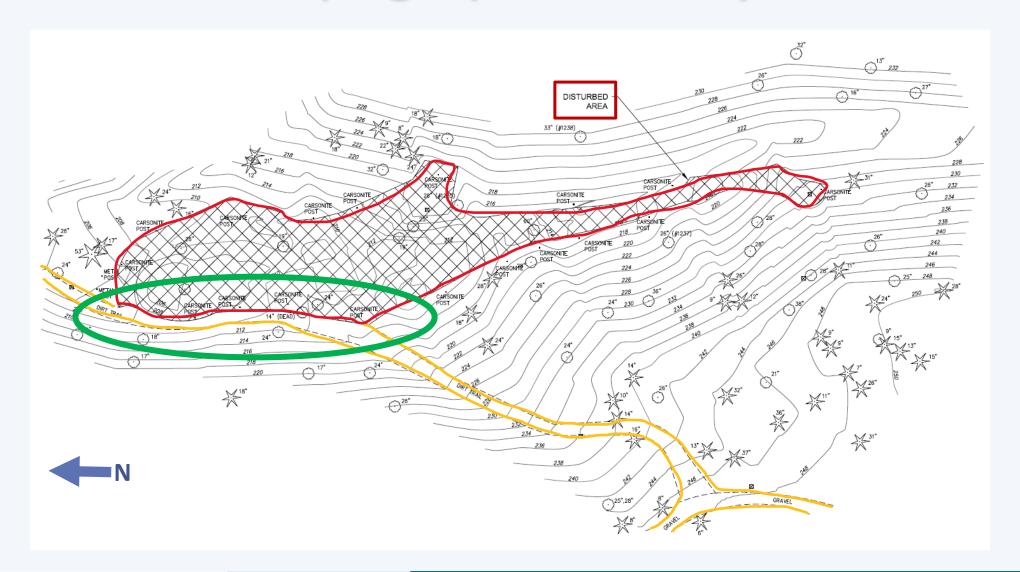
- Soils high in organics and sand, not appropriate for jump building
- Drainage water pooling in low areas, no positive drainage off site
- **Grading** native soils being 'borrowed' from adjacent slopes, creating highly erosive embankments, pooling areas, and steep jump sides
- Trees & vegetation soil grade around trees altered, vegetation on slopes damaged/removed from soil excavation
- Circulation shared bike/pedestrian trails have potential for conflict, especially at end of bike course; entry to BSA should be separated
- Signage needs to be updated, moved to new BSA entry point
- Bike course jump line can be improved to maximize safety, diversity of elements, and flow



BSA, November 2021

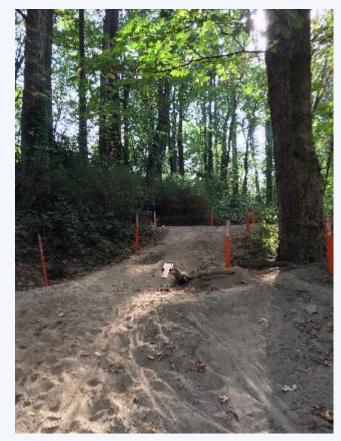


Topographic survey





ASD Recommendations



BSA, October 2016

- Restore native soil to all slope bases and replant native vegetation
- Perform full tree assessment
- Renovated BSA should remain within current impact area
- Course should be professionally designed and maintained in designed form
- Add drainage system
- Create new bike entry at top of course
- Install fencing at southwest edge of course
- Install new rules and wayfinding signage



Current status

Since October 2021, Parks staff have:

- Installed temporary construction fencing to stop site use
- Documented site topography and impact areas with survey
- Regraded soils at the site, removing all jumps
- Restored soils to undermined slopes
- Performed tree assessments on trees in and surrounding BSA, removed four trees that were in decline
- Hosted volunteer event in March 2022, planted 400 native shrubs and trees
 - Staff planted an additional ~220



BSA, November 2021

Next steps: Long Term Option #1

RE-DESIGN THE BSA PER ACTION SPORTS DESIGN'S RECOMMENDATIONS

- Report includes conceptual design for new jumpline layout and drainage system
- Estimated cost for construction: \$232,441 (planning level estimate)

Considerations:

- Will require additional funding for environmental review, permitting, and final construction design
- Opportunities for public input into design



Timeline: 12-24 months

Next steps: Long Term Option #2

RE-OPEN THE BSA WITH NEW JUMP LAYOUT, NO DRAINAGE IMPROVEMENTS

- Use conceptual design for new jumpline layout, but not drainage system
- Estimated cost for construction: \$158,000 (planning level estimate)

Considerations:

- Will require additional funding for environmental review, permitting, and final construction design
- Shorter process due to faster design and review
- Seasonal closure of site during winter months



Timeline: 6-12 months

Next steps: Long Term Option #3

RE-OPEN THE BSA WITH NO PROPOSED IMPROVEMENTS

- Users could use course immediately
- No proposed improvements, opened 'as-is'
- No budget appropriation needed

Considerations:

- Long-standing safety and operational issues are unresolved
- Not recommended by staff

Timeline: Immediate re-opening



Next steps: Long Term Option #4

CONDUCT PUBLIC ENGAGEMENT PROCESS TO DETERMINE NEEDS AND LOCATION

- Strong public opinions about whether BSA should remain at Upper Luther Burbank Park
- Keep BSA closed during process
- Identify site that meets amenity needs & acceptable impacts
- Budget appropriation required for consultant

Timeline:

- Public engagement process up to 12 months
- BSA closed at least 2 years



Next steps: Long Term Option #5

CONSIDER RELOCATING BSA TO DEANE'S CHILDRENS PARK

- Staff have considered other potential locations for BSA
- Evaluation criteria include:
 - Current park/space use
 - Potential impact on ecological/vegetation health
 - Equivalent course size (or greater)
 - Terrain
 - Available park amenities: restrooms, parking
 - Ease of access for construction, oversight, and maintenance





Next steps: Long Term Option #5

Item 1.

(continued)



CONSIDER RELOCATING BSA TO DEANE'S CHILDRENS PARK

- Deane's Childrens Park location:
 - Former Adventure Playground area has been impacted by recreational use
 - Lacks healthy understory vegetation
 - Mid-Island location
 - Site served by restroom, parking area
 - Site bounded by fencing

Timeline: 12-18 months



Next steps: Short Term Option #1

KEEP BSA CLOSED UNTIL NEW PLAN IS ADOPTED

- Facility has been closed for 7 months
- Development of new facility will take 6-24 months more, depending on outcome
- Immediate concerns at ULBP site have been addressed



BSA, October 2021



Next steps: Short Term Option #2

RE-OPEN BSA IN LIMITED MANNER DURING LONG-TERM

PLANNING & CONSTRUCTION

- Immediate concerns at ULBP site have been addressed
- Would require new jump building materials, consultant assistance with re-build, additional monitoring
- No site alterations or expansion would be permitted
- Site would be closed if rules are not followed
- Bike track would be fully restored once new BSA is opened





Projected cost: \$50,000 – 75,000

Staff Recommendations

Long term:

Pursue design and construction of new BSA facility at Deane's Childrens Park.



Required steps:

- Budget appropriation
- Hire professional course designer
- Engage MI bike community in design development
- Environmental review and permitting



Staff Recommendations

Short term:

Re-open BSA in Upper Luther Burbank Park during development of design and construction of new facility

Required steps:

- Import jump building materials
- Hire designer to build simplified, improved jumpline within current footprint
- Increase City monitoring of site

BSA would be closed down immediately if any jump alterations or expansion of the BSA are observed.





Questions & Discussion