

TITLE: Pump Bike Park Development Review	DATE OF MEETING: November 15, 2021 REPORT DATE: November 8, 2021
CLEARANCES:	ATTACHMENTS: <ol style="list-style-type: none"> 1. Pump Bike March 26, 2021 Council Presentation 2. Park Amenity Location Map 3. BMX Park Aerial View 4. Martensville Pump Bike Park Concept
Written by: Darcy McLeod – Director of Recreation & Community Services <p style="text-align: center;">Darcy McLeod</p>	
Reviewed by: Jessica Matsalla - City Clerk <p style="text-align: center;">Jessica Matsalla</p>	
Approved by: Lonnie Kaal - City Manager <p style="text-align: center;">Lonnie Kaal</p>	

PURPOSE

The purpose of this report is to provide information related to the review of park development to house a pump bike park and possibly the recently approved basketball court(s), as a result of Council’s direction related to a pump bike park proposal at their March 26, 2021 Council meeting. Specifically at the May 17, 2021 Council Meeting, Council directed administration to “Investigate possible locations and scope of a pump track, get community feedback and bring a report back to a future Council meeting.”

BACKGROUND

Outdoor basketball courts have been approved in the capital budget, however locations have been difficult to determine given the space requirement and trying to balance man-made structures with provision of natural spaces in existing parks. A request for a pump bike park has also been submitted to Council who then asked Administration to review possible locations for consideration. Further, other outdoor activities have become popular in recent years, especially as a result of the Covid-19 pandemic, therefore increased focus has been placed on enhancing outdoor recreation opportunities. Although the City has an abundance of parks and green spaces, not all green spaces are appropriate for all uses. Therefore a review of existing park spaces was conducted to assist with determining possible locations for consideration of new amenities.

Benefits of Parks

There are many specific benefits to parks, but here are a few of the more general benefits that a community sees from its parks.

1. Parks provide play spaces for children and families to be active and healthy.
2. Parks and green spaces reduce stress and keep people happy and healthy by providing space to relax, exercise, spend time with family and friends.
3. Parks provide an opportunity for people to connect with nature, which is proven to be a stress reducer.
4. Parks decrease the impact of extreme weather events by absorbing excessive moisture.
5. Parks act as an air filter for fine particles and some pollutants.

6. Parks attract business and visitors and boost property taxes.
7. Parks provide a social gathering place to build community and reduce the sense of loneliness.
8. Parks are a part of our community fabric and civic identity.

Park Considerations

Best practice indicates that you have excellent access to a park space if you can walk or roll there within approximately 5 minutes; you have medium access if you can walk or roll to a park in 20 minutes; and you have low access if you need to drive to get there. Given the size of Yorkton, people can walk or roll almost anywhere, however highways and main arterial roads are barriers to access. This access is further impacted when a person's access to transportation is limited (no car or limited transit services).

It is not feasible to include every amenity in every park while ensuring that meaningful green space is also maintained for community access. Therefore when planning parks and amenities, it is important to consider resident access to them. Some people will be required, and most will be willing, to drive in order to access specific amenities in other parks as it is not feasible to provide an amenity in every neighbourhood park. When these special amenities are provided in one park, they are not only neighbourhood parks, but also become destination parks, as the amenities service people from outside the neighbourhood as well. Examples of this are the wheelchair accessible play structure in Weinmaster Park, the Skatepark as well as the three spray parks located in different neighbourhoods across the City.

Most neighborhood parks are within walking or rolling distance, so the impact to on-street vehicle parking is limited. However, when a neighbourhood park provides amenities that people from outside the neighborhood use, the park could now be considered a destination park. In these cases parking considerations are required to support the increase in vehicle traffic as people drive across the City to access the amenity. Appropriate planning is required when planning for these types of parks, which the pump bike park and basketball court(s) will become.

Although most outdoor rinks are multi-purpose, and include basketball nets, they are not conducive to playing a game of basketball or 3 on 3, as the nets are located outside the surface and arena boards. This makes retrieving the basketball awkward and frustrating as the time it takes to retrieve the ball takes momentum away from the game being played, negatively impacting the player experience. Fencing is being tried behind a few of these nets to improve play, however, specific basketball courts are planned in areas where an outdoor rink is not in place, to better provide this opportunity for the public. These courts will become a destination for basketball players across the city and one is currently planned for the southwest portion of the City and a second one possibly in the northeast of the City, to ensure medium access (walk or roll in 20 minutes) to these courts (as other courts are available in the neighbourhood parks in outdoor rinks).

Park Inventory

Yorkton has a number of parks and green spaces that support access to the natural environment. Some of these are neighborhood parks with a number of amenities, small pocket parks or linear parks that only provide green space to enjoy the outdoors. Other spaces are special purpose including sport fields, Deer Park Golf Course, the Ravine Ecological Preserve, Logan Green and the City Cemetery.

A listing of parks and amenities is attached to this report for ease of reference. A brief assessment of park types and their main purpose compared to the practicality for hosting increased amenities balanced with resident access, is provided below.

Pocket Parks, Linear Parks

These park spaces are typically too small or too narrow, to provide any amenities beyond a pathway and benches. They provide access to a natural/green area so that people in the area have somewhere to go outside and enjoy the outdoors in a green space. Although typically not large enough or intended to host permanent, outdoor recreation facilities, they are not exempt from hosting physical activities or events. Pocket Parks and similar green spaces, include or are located at: Erichsen Park, Shaw Park, Langrill Park, Centennial Drive, Elizabeth Avenue, Manitoba Avenue, Henderson and Collacott Drives, Franko Drive and Whitesand Drive. Examples of linear Parks include: Riverside Drive Park, Morrison Park.

Neighbourhood Parks (Could also Include Destination Parks designation)

These parks are larger and provide for man-made amenities for public use and enjoyment. These spaces also include green space that allows for non-structured enjoyment of the outdoors. They could host play structures, outdoor rinks/multi-purpose courts, toboggan hills, tennis/pickle ball, basketball, open area for free play/unorganized games and sports. Examples of this type of park are Knights of Columbus Park, Silver Heights Park, Heritage Heights Park and Weinmaster Park. More recently amenities were added to Ukrainian Pioneer Park/Drake Field to create a neighborhood park that would serve the north central residents.

Some parks only house a play structure such as Jackson Park, Waterloo Park and North St. Park. Tupper Park recently received a play structure to address the lack of amenities in the south central part of the City, However other parks and recreation opportunities are still lacking in this area.

Other Park or Open Spaces

There are other parks where the main purpose of the park is to enjoy nature, go for a walk or celebrate our culture. This doesn't mean that activities can't occur in them, however we would not prioritize man-made recreation structures in these parks. Some have pathways, house natural environments to enjoy nature or the terrain is not suitable. These park spaces include Logan Green Park, Patrick Park, Rodney Ridge and Shaw Park.

Park Options

The delegation that requested Council consideration of a pump bike park provided 3 examples of spaces where a pump bike park could be located. All three locations are in the north east area of the City that has numerous park amenities in a relatively small area. The first location was Heritage Heights Park, which already has multiple man-made recreation infrastructure including a lighted outdoor rink and multi-purpose hard court, lighted tennis courts, a play structure as well as a baseball backstop. This park also houses a large green space that allows free play to occur or a quiet place to enjoy the outdoors. This area of the City is currently well-serviced from a park amenity perspective.

The second location was Weinmaster Park, which also has a number of man-made outdoor recreation infrastructure. This includes a lighted outdoor rink and multi-purpose hard court with basketball nets, a spray park and an accessible play structure. Further it houses a toboggan hill and large green space for free play and simple enjoyment of the outdoors. People travel from all over the city to access these amenities and parking is already an issue. Adding a basketball court or pump bike park would further intensify the current parking issue as more people will travel to use these amenities.

The third location was in an outdoor space adjacent to the Gloria Hayden Community Centre. This is a small green area with no other amenities other than a parking lot, which is close to the street that could also be used to support parking. Although this is a grassed area, it really isn't considered a park. Further, adding features to this space would further increase the outdoor recreation amenities in an area of the City that is already well-serviced.

One area not referenced in the existing park inventory is the space behind Columbia school where a small dirt BMX track is in place. This space has not seen any development and receives minimal maintenance, and therefore it is sometimes forgotten that it is zoned as Parks and Recreation land as per the Municipal Zoning Bylaw No. 14/2003. This space is currently under-utilized and offers an option to further develop outdoor recreation amenities in an area of the City that is currently under-serviced from a parks and recreation perspective. People in this area have minimal access to parks and recreation services (as defined above and indicated in the attached Park Amenity Location Map) and would be required to use alternate modes of transportation to access most parks and recreation amenities in other neighborhoods. Creating a park space in this area would increase resident's connection to their community and each other. Creating community connections in a neighborhood leads to a safer neighborhood no matter which neighborhood is being discussed. More people visiting a space lessens the likelihood of negative activity.

Further, the pump bike track and/or basketball courts will be amenities that will attract people from across the City, therefore parking should also be considered when planning for these amenities. The space behind Columbia School could accommodate parking to support these amenities as the back lanes are already used to service parking for the apartment buildings located there. A small parking lot could be provided as part of this development.

FINANCIAL IMPLICATIONS

The City of Regina and the Town of Martensville both completed the construction of a pump bike park in 2021. There are BMX parks located in various municipalities, however these are the only asphalt pump bike parks that I'm aware of in Saskatchewan. The City of Regina's pump bike park was initiated by a local community association, that fundraised \$150,000 for their pump bike park. The approximate cost for Martensville's pump bike park was \$305,000. This included the artificial turf infield, however did not include the exterior landscaping. Lights were not included, however are planned for the future. The full area of the pump bike park is approximately 950 sq m with approximately 636 sq m of asphalt. The track is 489 feet in length. This size of this park would be between option B and C as proposed to City Council in the attached copy of the March 26, 2021 presentation.

Currently, the City of Yorkton has allocated \$100,000 toward the construction of basketball courts in their 2021 capital budget. The funding required for a pump bike park would be required before proceeding. If there is a desire to provide this amenity, the pump bike park could be referred to the 2022/23 capital budget discussions of Council.

COMMUNICATION PLAN/PUBLIC NOTICE

Regardless of the recommended location for a basketball court(s) and/or pump bike park, community engagement would proceed in the immediate area selected to create awareness, inform the residents and ask for feedback to be incorporated into a Council decision to proceed.

Further, if a pump bike park is approved by Council, an online virtual open house could be used by the selected consultant/park builder, to obtain feedback on the design of a pump a bike park.

STRATEGIC PRIORITIES/OCP/COMMITTEE RECOMMENDATION(S)

This review is in response to Council's direction to administration on March 26, 2021. This meets the strategic direction Recreation and Community Services to ensure services are available that provide opportunities for youth and families to provide positive healthy lifestyle choices. Further, the community identified priority area that indicates the Yorkton will be "A community with a comprehensive, integrated and sustainable infrastructure plan and programs that meet current and future needs...that include walking trails, bike paths, facilities."

The Recreation and Community Services Committee reviewed possible locations for a basketball court(s) and possibly a pump bike park at their October 5, 2021 Committee Mtg. The intent was to advise Administration & Council on the appropriate location for basketball courts and possibly a pump bike park, if they believe a pump bike park is something Council should consider providing in future budgets.

This review was presented and discussed at the October 5, 2021 Recreation and Community Services Committee. The following questions were asked specifically of the Committee:

1. Where would it be appropriate to place a permanent hard court basketball court(s). Two are being considered pending available funding.
2. Should the City invest in a pump bike park? If so, what is the appropriate location that should be considered?
3. Should the basketball courts and the pump bike park be located in one development, or should they be located in different areas? If different areas, what area is the most appropriate?

After considering this review and the amenity location map attached to it, the Committee indicated that there appears to be a service gap in the south central portion of the City with a higher concentration of amenities in the east and northeast portion of the City. Developing a park in this area of the City would provide another great destination park in a different neighborhood. It would spread out the amenities and ensure a more equitable access to parks and recreation opportunities across the City.

OPTIONS

1. That a further park development of Heritage Heights Park be considered.
2. That a development be considered on the greenspace adjacent to the Gloria Hayden entrance on Morrison Drive.
3. That further development of Weinmaster Park be considered.
4. That development of new park space at the BMX Park behind Columbia School be considered.

RECOMMENDATION

That a park be developed in the BMX Park located behind Columbia School that would see two basketball courts along with a pump bike park, replacing the existing BMX track. Further, that a parking area be established for the park and lights be considered for all amenities as funding becomes available. Further, that the pump bike park and parking area be referred to budget discussions.

YORKTON PUMP TRACK





A pump track is a 1-3 metre wide track that can be used for bicycle, skateboard, in-line skates and scooter riders to practice skills on a series of features, such as berms and rollers placed in quick succession. Essentially they are scaled down BMX tracks which do not require pedaling. 'Pump' refers to the action made by riders pushing down with their arms and legs to manoeuvre the bike or board over features to maintain momentum without pedaling or pushing-off the ground. Typically, tracks can be ridden continuously, and different combinations of features can be linked to provide a varied challenge. Bike handling skills can be transferred to other mountain bike tracks. Well designed pump tracks cater for all abilities, with all features being roll-able for beginners, and allowing for progression to pumping, and even jumping for more advanced riders. Riding a pump track is easy and children are typically comfortable using them within 10-20 minutes.



A well designed pump track provides enough challenges to stay attractive for years, because the rollers and berms can be combined and transitioned in different directions, creating opportunity for skilled riders to do jumps and maneuvers. Pump tracks can be made from natural soil, hardened surfaces, wood, fibreglass, concrete or asphalt. Historically pump tracks were constructed from natural soil blends and required significant ongoing maintenance. More recently, world's best practice is tending toward lower maintenance surfacing techniques and materials, such as asphalt, which are inclusive for a larger user base of wheeled-sports including skateboarding, scooters, in-line skates and non-off road bikes.





YORKTON PUMP TRACK



PUMP TRACK LAYOUT EXAMPLES



Young one on a balance bike



Inline skaters



Mum and son on BMX bikes



Scoters



Skaters get a flow sensation closer to surfing than plaza or street typically give



Mountain bikes

Pump Tracks appeal to all wheeled sports and when design well provide features for the beginner through to the advanced. They are a lot of fun and promote fitness through having a good time.

Wheel sport users would include balance bikes, scooters, bmx bikes, mountain bikes, skateboarders and inline skaters.

The approach to a successful pump track design have all of the users and abilities in mind:

For the beginners section this would include having the beginner loop be small in loop distance, small vertical sized features, be adjacent a track platform to allow supervisors to be close by, make entry and exit from the beginner loop be at a highly visible spot and allow the beginner area to be adjacent intermediate and advanced feature for the 'watch and learn' factor.

The intermediate will include a series of larger features on a longer loop than that of the beginner loop, however it still needs to accommodate progression. This loop can be ridden without the rubber leaving asphalt, but as soon as the user is ready then the features will accommodate that bit more speed and some air time

The advanced features are larger in scale and often require a higher level of speed to correctly ride them. Features become more complex and may offer differing approaches or landings. Progression is still paramount.

Typically a pump track will have transfer lines which may only be evident to an experienced user. These often make up the most advanced features for very competent users.





Roller



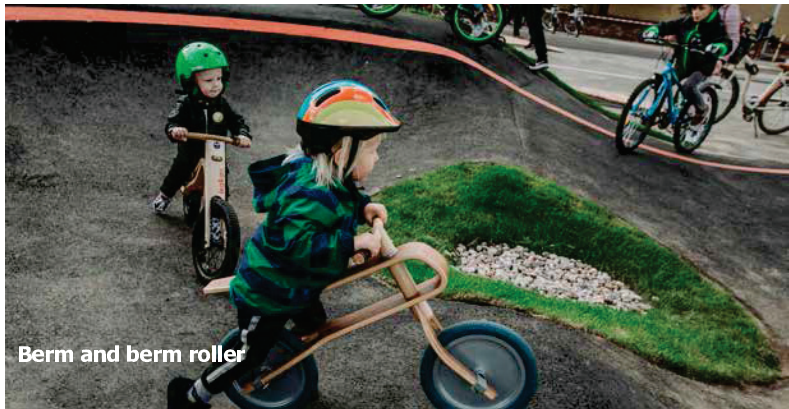
Timber and steel features



Tabletop



Pump bowl / flower berm



Berm and berm roller



Berm to berm

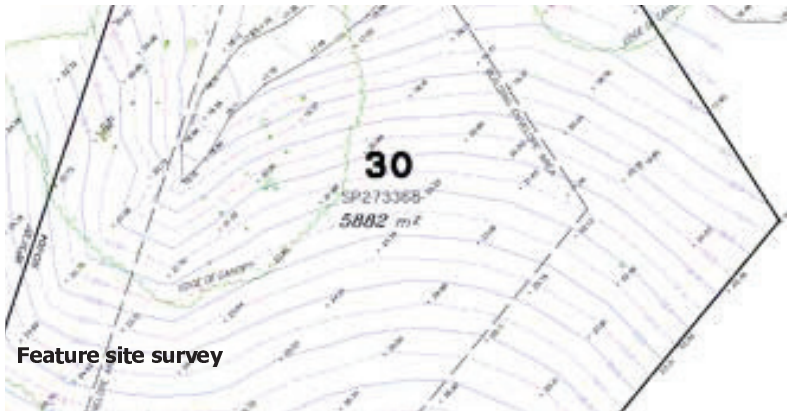




Geotechnical analysis



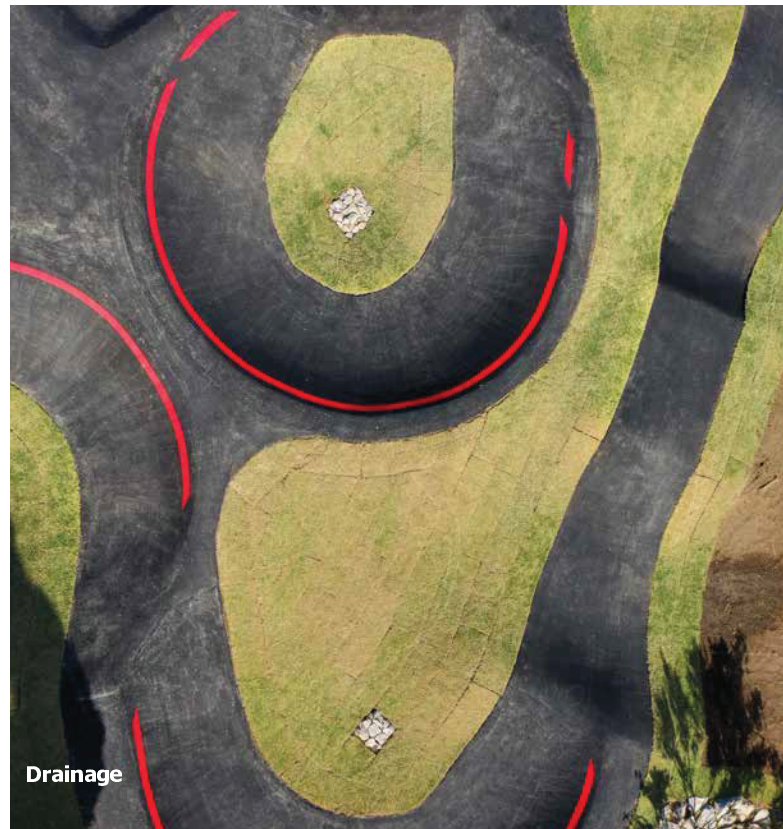
Suitably finished landscape surfaces



Feature site survey



Consult with all key stakeholders



Drainage

There is a series of items to get correct in the design and construction of a pump track to ensure a long lasting and low maintenance asset.

Geotechnical study is required to allow custom and adequate civil analysis is achieved which determines compaction rates of all sub-materials of the track

Yorkton is flat, however a feature survey of the site is required so water gets pushed in the correct direction and connect to a system if required to have no detrimental effects

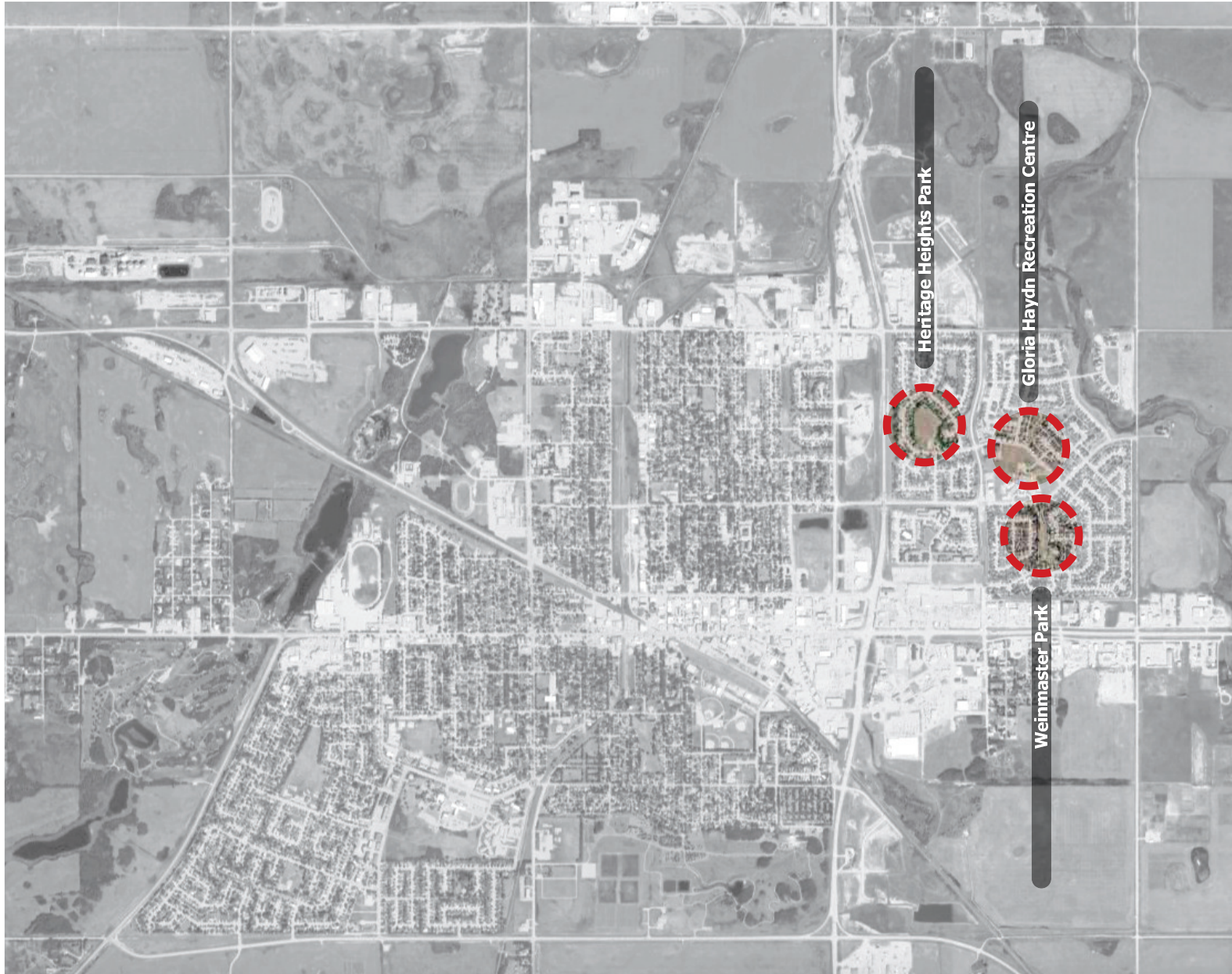
A drainage system with civil engineer certification to ensure water does not sit around the site or create erosion issues to the track or surrounding landscape

Fit for purpose adjacent landscape finish which will be required to provide erosion control of the shapes created by the track shapes and not generate any wash over the track which a finish like wood chip mulch may create. And of course to look good

The asset owner is involved with the design process to ensure maintenance requirements are met for ongoing ease of maintenance. This may include standard grades of grass for machine mowing etc

Maintenance of an asphalt pump track is a minimal affair. The track itself will require inspections for failures, but no require maintenance besides the occasional sweep or blow. Asphalt pump tracks are fairly new so the life span is a little unknown however there are plenty of examples at 6 years old with no signs of severe degradation. Drainage pits will require regular inspection/clearing and the grass will need a mow. Much easier than most outdoor public facilities





Three sites have been selected for the purposes of demonstrating pump track possibilities within the City of Yorkton only.

Heritage Heights Park has an enormous amount of grass area and would easily accommodate a pump track of a variety of size and shape. This site will accommodate future expansions of the pump track or additional bike park facilities like jump lines, bike playgrounds, skill courses, learn to ride courses etc.

Gloria Haydn Recreation Centre has existing carparking and a large amount of unused grass in front of it that would easily accommodate a pump track. Services will be easily connected to with both the street and Gloria Haydn on adjacent boundaries. Facilities and shelter are available at the Gloria Haydn.

Weinmaster Park is a hive of activity that is well connected to adjacent neighbourhoods with a high ratio of young families. The site identified is to the north of the toboggan hill in a long slim section of the park. A smaller track could be accommodated but will be a very popular location given the visitation the park already gets



LEGEND

- ① EXISTING PARK FACILITIES
- ② EXISTING PATH
- ③ PROPOSED PATH TO MATCH EXISTING
- ④ EXTENT OF EARTH FORM BATTERS
- ⑤ PRIMARY PLATFORM AND ACCESS PATH
- ⑥ SECONDARY PLATFORM AND ACCESS PATH
- ⑦ PUMP BOWL
- ⑧ TYPICAL ROLLER
- ⑨ DOUBLE ROLLER
- ⑩ OVER ROLLER
- ⑪ ROLL-ABLE DOUBLE JUMP
- ⑫ BERM TO BERM
- ⑬ HIPPED ROLLER
- ⑭ HIPPED JUMP

- GRASS TO ALL DISTURBED AREAS
- ASPHALT PUMP TRACK (VARYING SHAPES)
- ASPHALT PUMP TRACK PLATFORMS (FLAT)

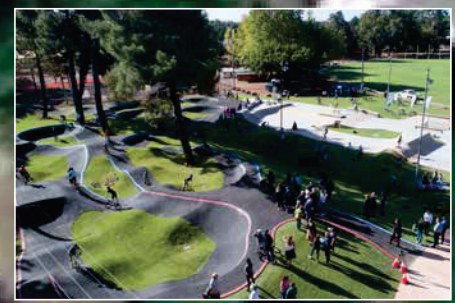
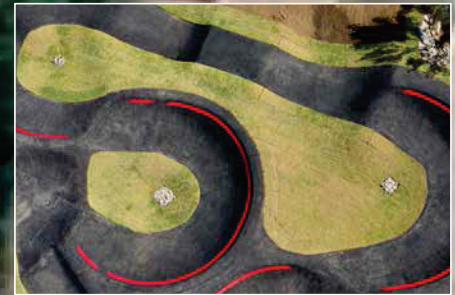
- BEGINNER FEATURES
- INTERMEDIATE FEATURES
- ADVANCED TRANSFER FEATURES
- JUMP LINE
- TRANSFER OPTIONS

DESIGN NOTES

- THE TRACK IS SET ON NGS TO BEST ACCOMODATE DRAINAGE
- BATTERS SHOWN AT 1:5 GRADE SUITABLE FOR MACHINE MOWING OF GRASS
- TWO ENTRY POINTS
- PRIMARY PLATFORM COULD COMFORTABLY ACCOMODATE A SHELTER AND FURNITURE IF REQUIERD

0m 20m

SCALE 1:400 @A3



YORKTON PUMP TRACK



CONCEPT LAYOUT A
 LOCATION: HERITAGE HEIGHTS PARK
 SCALE: 1,250_{50m}

LEGEND

- ① GLORIA HAYDEN CARPARK
- ② EXTENT OF EARTH FORM BATTERS
- ③ PRIMARY PLATFORM AND ACCESS PATH
- ④ TYPICAL ROLLER
- ⑤ DOUBLE ROLLER
- ⑥ HIPPED ROLLER
- ⑦ ROLL-ABLE TABLETOP
- ⑧ STEP-UP JUMP
- ⑨ FALLING BERM
- ⑩ BERM TO BERM

- GRASS TO ALL DISTURBED AREAS
- ASPHALT PUMP TRACK (VARYING SHAPES)
- ASPHALT PUMP TRACK PLATFORMS (FLAT)

- BEGINNER FEATURES
- INTERMEDIATE FEATURES
- ADVANCED TRANSFER FEATURES
- TRANSFER OPTIONS

DESIGN NOTES

- THE TRACK IS SET ON NGS TO BEST ACCOMMODATE DRAINAGE
- BATTERS SHOWN AT 1:5 GRADE SUITABLE FOR MACHINE MOWING OF GRASS
- PRIMARY PLATFORM COULD COMFORTABLY ACCOMMODATE A SHELTER AND FURNITURE IF REQUIRED

0m 20m
SCALE 1:400 @A3



YORKTON PUMP TRACK



CONCEPT LAYOUT B
LOCATION: GLORIA HAYDEN REC CENTRE
SCALE: 520_{50M}

LEGEND

- ① TOP OF WEINMASTER PARK HILL
- ② BOTTOM OF WEINMASTER PARK HILL
- ③ EXISTING PATH
- ④ EXTENSION OF PATH TO MATCH EXISTING
- ⑤ EXTENT OF EARTH FORM BATTERS
- ⑥ PRIMARY PLATFORM AND ACCESS PATH
- ⑦ SECONDARY PLATFORM AND OPTIONAL ENTRY PATH
- ⑧ TYPICAL ROLLER
- ⑨ DOUBLE ROLLER
- ⑩ ROLL-ABLE TABLETOP
- ⑪ S - BERMS
- ⑫ FALLING BERM
- ⑬ CENTRAL DYNAMIC COMPLEX

- GRASS TO ALL DISTURBED AREAS
- ASPHALT PUMP TRACK (VARYING SHAPES)
- ASPHALT PUMP TRACK PLATFORMS (FLAT)

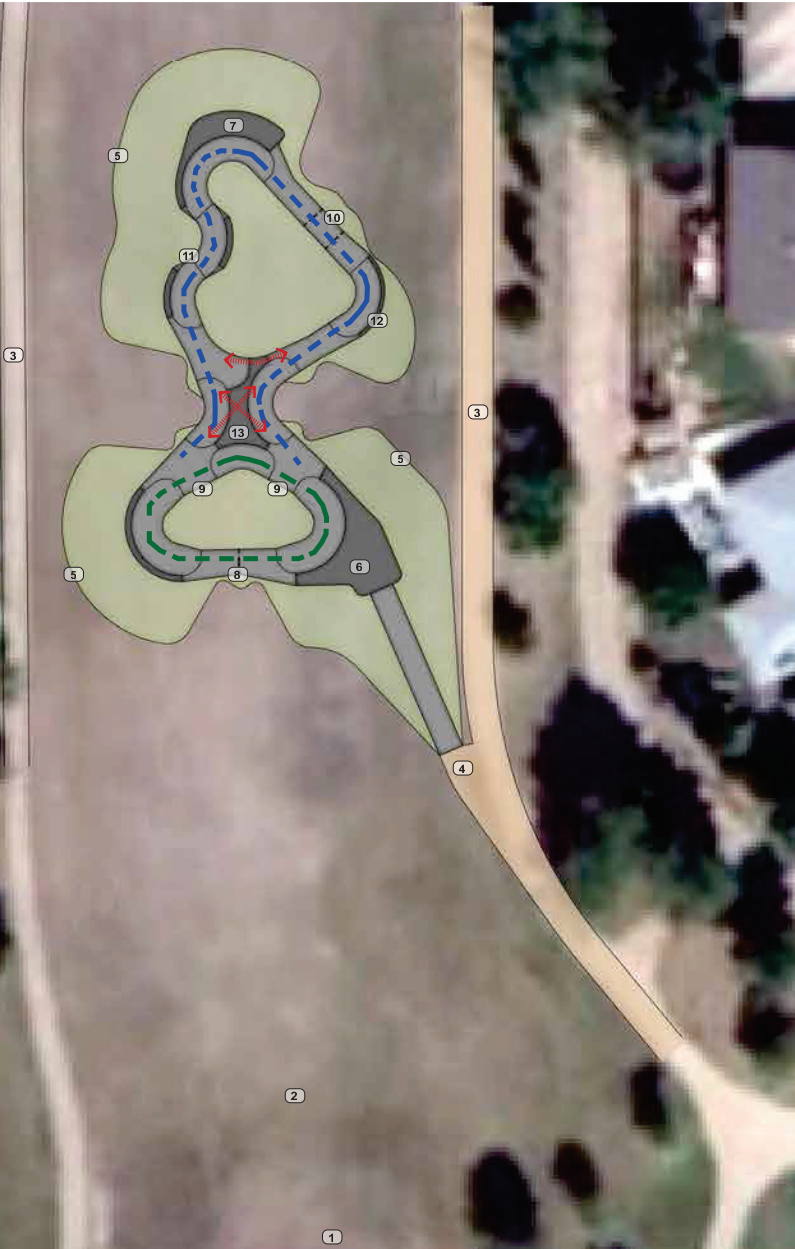
- BEGINNER FEATURES
- INTERMEDIATE FEATURES
- TRANSFER OPTIONS

DESIGN NOTES

- THE TRACK IS SET ON NGS TO BEST ACCOMODATE DRAINAGE
- BATTERS SHOWN AT 1:5 GRADE SUITABLE FOR MACHINE MOWING OF GRASS
- PRIMARY PLATFORM COULD COMFORTABLY ACCOMODATE A SHELTER AND FURNITURE IF REQUIERD
- AN ADDITIONAL ACCES PATH AT THE NORTHERN END COULD BE ACCOMODATED IF DESIREABLE
- TRANSFER OPTIONS ARE TYPICALLY ADVANCED FEATURES IN NATURE

0m 20m

SCALE 1:400 @A3



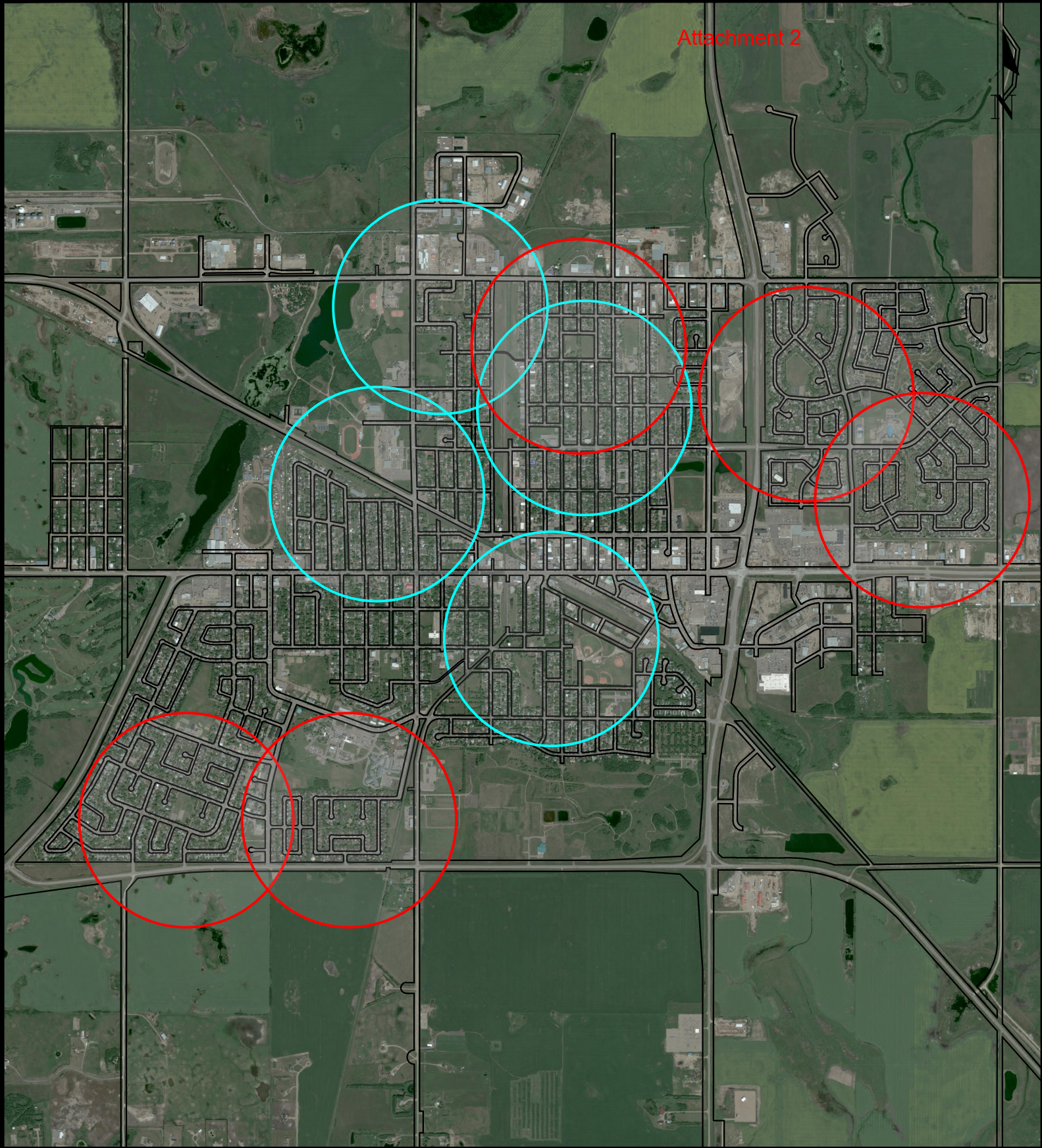
YORKTON PUMP TRACK



CONCEPT LAYOUT C
 LOCATION: WEINMASTER PARK
 SCALE: 350_{50m}

THANK YOU





SHEET		OF	
DRAWING NUMBER	2021-003-RCS		
SCALE	NTS		
DRAWN	BC		
DESIGNED			
CHECKED			
DATE - (YYYY-MM-DD)	2021-09-30		

Park Amenity Location Map 600m Radius

NOTES:



Play Structure Only



Multiple Amenities



INDEPENDENT STREET

COLUMBIA SCHOOL


BMX PARK

BRAD

SHEET	OF
DRAWING NUMBER	
SCALE	NTS
DRAWN	BC
DESIGNED	
CHECKED	
DATE - (YYYY-MM-DD)	2021-11-05

BMX Park





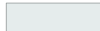

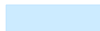

NOTES:

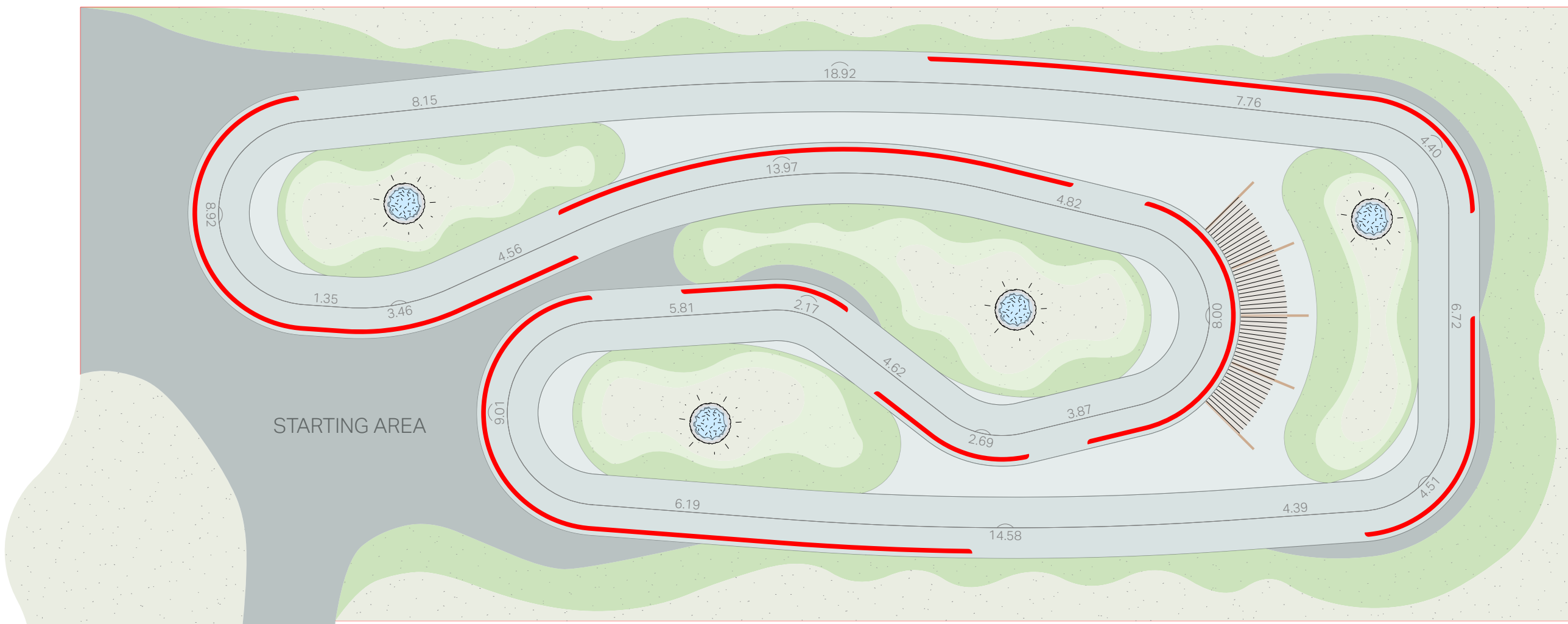


City of
Yorkton

FILE NAME
proposed pump track & basketball locations.dwg

Legend:

-  Total area
-  Slopes
-  Pump Track
-  Platforms
-  Connections
-  Safety line
-  Drainage hole
-  Access path



Specification:

Total Area:	0 m2
Asphalt Surface:	636 m2
Green Area:	-636 m2
Pump Track Length:	149 m
Kids Track Length:	0 m
Jump Track Length:	0 m
Safety Line Length (Total):	115 m
Number of Drainage Holes:	4
Number of Sewers:	0
Length of Drainage Pipes:	0 m

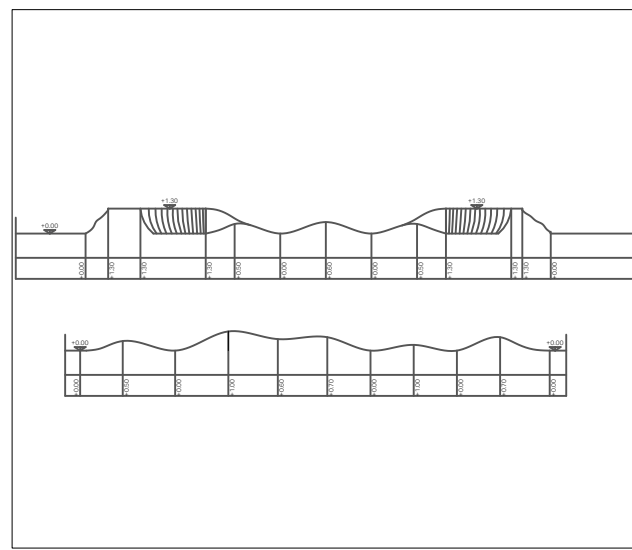
Kinsmen Park Pumptrack

Client:	City of Martensville
Tech. Drawer:	Amedeo Gadotti
Track Design:	Claudio Caluori

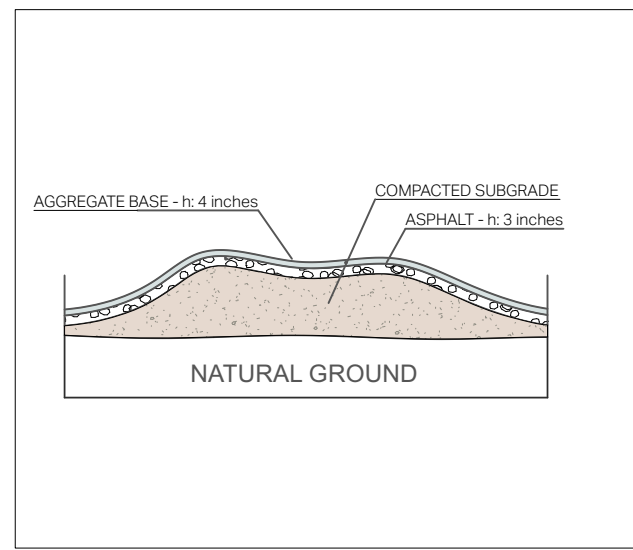
DATE	04-06-2021
------	------------

Project ID#	ID#119228
-------------	-----------

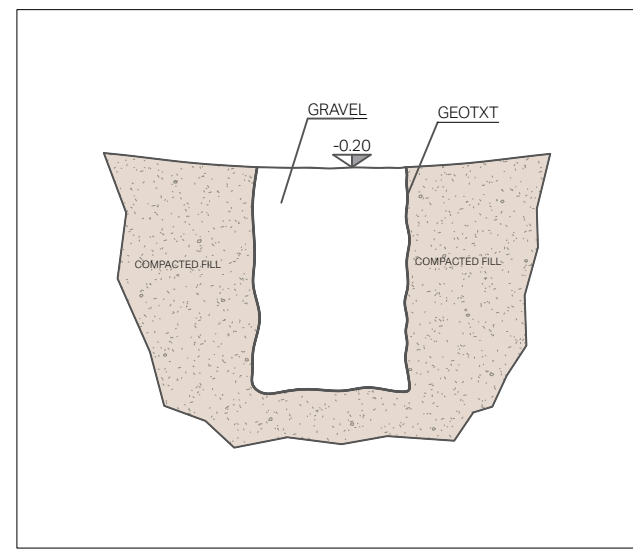
SITE ADDRESS	901 3rd St. N. Martensville, SK, S0K 0A2
--------------	--



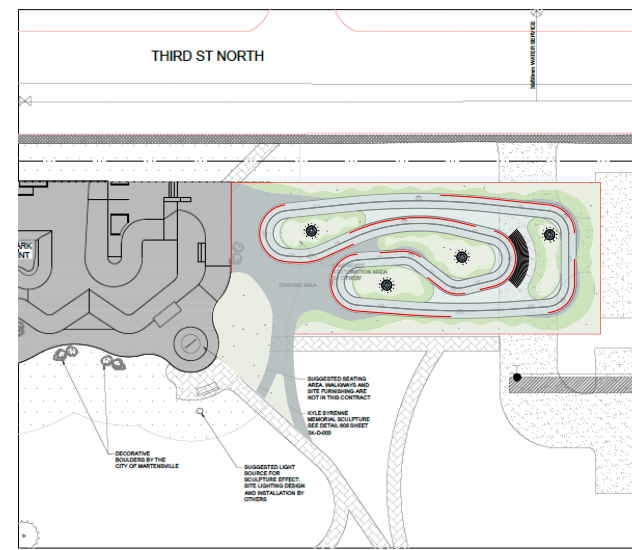
TYP. X-SECTION DETAILS



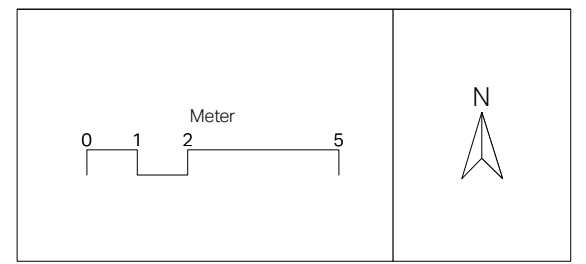
TYP. DETAIL - MATERIALS



TYP. DETAIL - FRENCH DRAIN



SITUATION PLAN



NOTE: PUMPTRACK DESIGNS, RELATED DETAILS, DRAWINGS AND SPECIFICATIONS ARE THE CREATIVE PROPERTY OF THINK & BUILD VELOSOLUTIONS AND AMERICANRAMP COMPANY AND THEIR DESIGN TEAMS. THIS INFORMATION SHALL NOT BE SHARED WITH ANY OUTSIDE PARTIES WITHOUT EXPRESS WRITTEN CONSENT FROM AN AUTHORIZED REPRESENTATIVE OF THINK AND BULD VELOSOLUTIONS AND AMERICAN RAMP COMPANY

