



BRUNSWICK VELODROME MASTERPLAN

INFIELD BIKE PARK REDEVELOPMENT

EXISTING FEATURES

1. BRUNSWICK CYCLING CLUB PAVILION EXISTING
2. VIEWING STANDS WITH CANOPIES EXISTING
3. ORIGINAL KIOSK AND STORAGE CURRENTLY UNUSED
4. CONCRETE BANKED TRACK STARTING & FINISH LINE EXISTING
5. CONCRETE DUCKBOARD EXISTING
6. VIEWING AND EVENT TERRACE EXISTING
7. ACCESS TO INFIELD VIA BANKED TRACK AND GATE
8. EXISTING FLOODLIGHTING TO BANKED TRACK FOR NIGHTTIME USE
9. EXISTING JUDGING PLATFORM IN STEEL AND PLYWOOD
10. CONNECTING ROUGH CONCRETE PAVING BETWEEN TRACK START AND FINISH FOR RACE MANAGEMENT
11. TRACK EXIT CHUTES CURRENTLY VERY TIGHT
12. INFIELD CURRENTLY TURFED WITH DRAINAGE OUTLET TO CREEK



The existing facility at Roberts Reserve is the Brunswick Velodrome, the home of Brunswick Cycling Club. Both the Club Pavilion (1) and the outdoor velodrome are very well used by the club members for events as well as the local public for training and recreation.

The Merri Creek cycle paths run past and around the velodrome and provide walking and cycling access to the facility. The Club Pavilion has limited parking adjacent and the local roads Harrison Street and Galada Way provide further casual parking opportunity.

The surrounding buildings to the West and South include low and medium density housing respectively, while Jones Park lies immediately to the South-West of the site and Northcote Public Golf Course is on the Darebin City side of Merri Creek to the East. Immediately to the North of the velodrome is a small area of Roberts Reserve which is grassed and connects the streets to the Creek corridor.

The banked oval track is of painted concrete in good condition, with two start and finish straights (4) and 2 highly banked turns at East and West. A 1m width flat duckboard run-out sits within it (5). Access to the track is via terracing (6,7), both shaded and unshaded, alongside the northern side of the track (2). The original kiosk building adjacent to the track entry gate is disused but intact. This displays street art on its walls and has roller shutter openings to the entry way (3).

The existing infield of the banked track is currently grassed (12), with drainage grate towards the Eastern end alongside the concrete paved crossing path for track use between opposite straights (10). This is used in training and race events for queued starts. The turf area within the paved duckboard is used by riders, especially novices, for run-out area from the track, given track riders are usually brakeless.

Brunswick Cycling Club has realised the need to diversify the facility for both its members and the community to encourage participation in all disciplines of cycling. The provision of international standard facilities in the urban environment given the popularity of mountain biking and BMX among young riders is expected to increase their exposure to track and road cycling of established riders and enjoy their development of these further cycling skills. This will ensure the sustainable participation of all generations of the community in cycling as a whole.

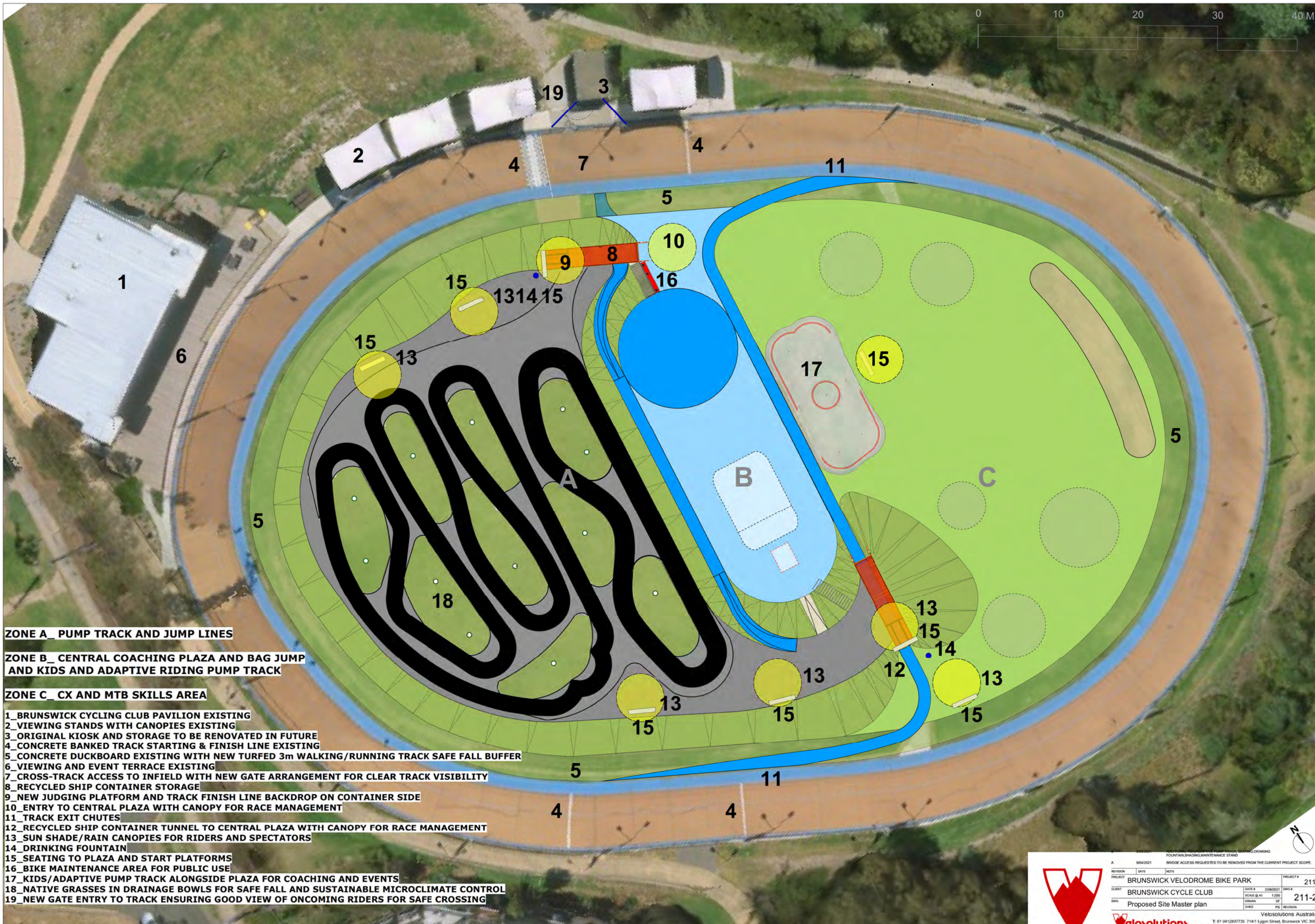
The proposal is to develop the infield area for the following further cycling facilities:

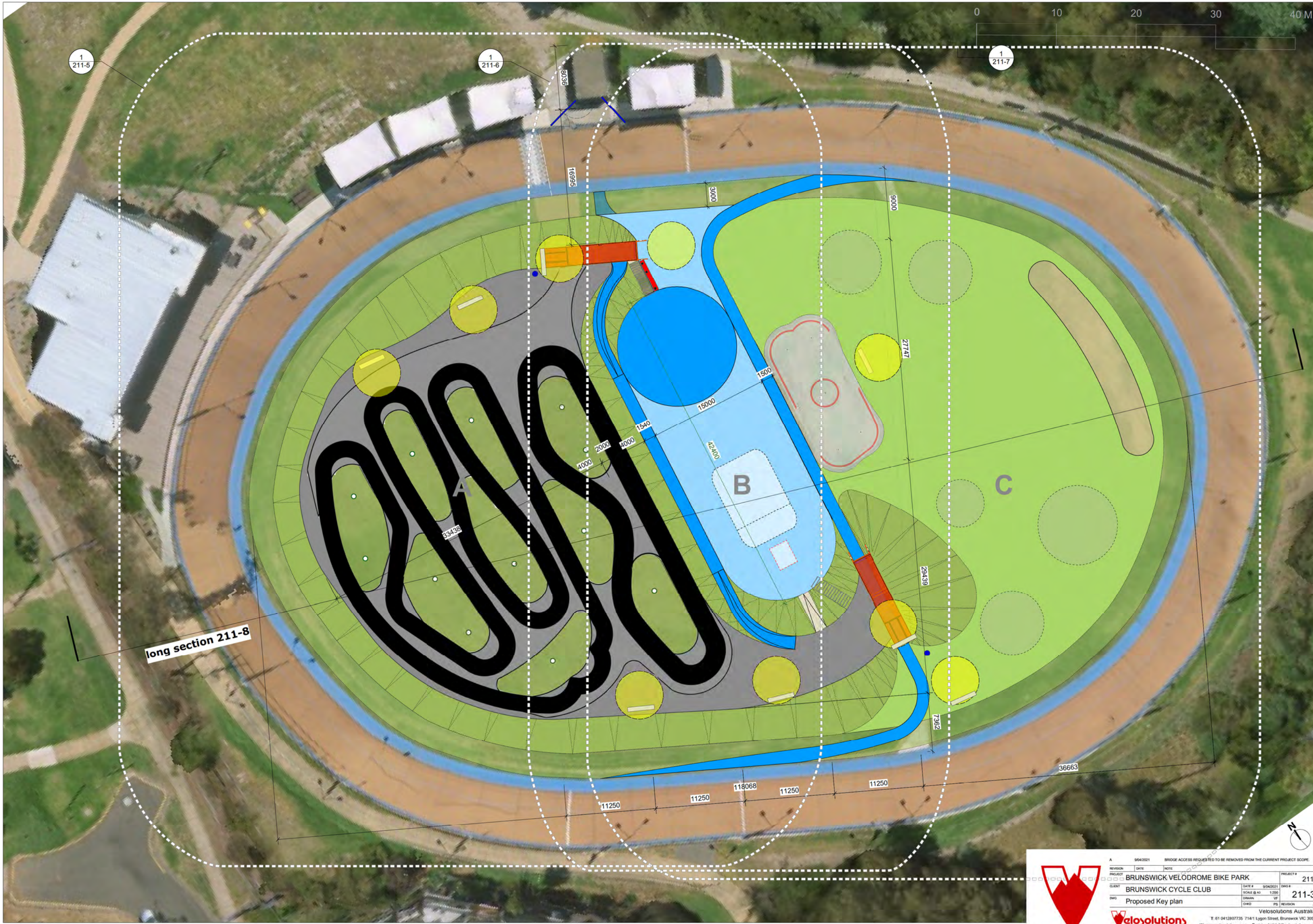
- _an all-weather all-wheel pump track of international event standard, usable for all rider levels;
- _all weather jump lines for beginner and intermediate level riders;
- _central plaza providing coaching and space for young and novice riders, and event management capacity for club and community;
- _flexible area for Cyclocross (CX) and Mountain bike (MTB) skills features and urban CX/MTB race events
- _improvement of banked track access and use by infield run-out area and circulation paving, as well as event judging position
- _shading canopies within the infield for users in all weather
- _provision of effective access to the infield from outside the track for all users, allowing track events and recreational use concurrently.

cycle path access: via Merri Creek Trail and through B.C.C. sightline from pavilion and terrace



A		9/04/2021	BRIDGE ACCESS REQUESTED TO BE REMOVED FROM THE CURRENT PROJECT SCOPE	
REVISION	DATE	NOTE	PROJECT #	211
PROJECT	BRUNSWICK VELODROME BIKE PARK		DATE #	9/04/2021
CLIENT	BRUNSWICK CYCLE CLUB		SCALE & AS	1:1
DRAWN	XX		XX	211-1
CHD	XX		XX	A
Existing site				
Velosolutions Australia				
T: 61 0412807735 714/1 Lygon Street, Brunswick VIC 3056				
W: www.velosolutions.com E: vivian.fairfull@velosolutions.com				





long section 211-8



A		9/04/2021		BRIDGE ACCESS REQUESTED TO BE REMOVED FROM THE CURRENT PROJECT SCOPE.	
REVISION	DATE	NOTE			
PROJECT		BRUNSWICK VELODROME BIKE PARK			
CLIENT		BRUNSWICK CYCLE CLUB			
DWM		DATE #	9/04/2021	DWG #	211
CHD		SCALE & AS	1:200	VT	211-3
		CHD	PS	REVISION	A

Velosolutions Australia
T: 61 0412807735 71411 Lygon Street, Brunswick VIC 3066
W: www.velosolutions.com E: vivian.fairfull@velosolutions.com

- cycle path access: via diagonal banked track & bridge
- jump lines access- natural circulation between start platforms
- pump track access- natural circulation between start platforms
- banked track access and exit chutes
- bag jump access- to be controlled by management when in use
- walking & running loop and safety fall zone for banked track
- sightline from pavilion and terrace

SAFETY IN DESIGN

NOTE: Specific safety considerations include, but are not limited to:

- Clear and visible entry from outside the Velodrome onto the banked track and into the infield must consider track riding at speed is likely;
- Differing speeds and abilities of riders are considered in the site planning of the developed velodrome: eg a new 3m minimum width 'buffer zone' of turfed level area is to be provided between the level 'duckboard' at the foot of the banked track as a run-off area, especially from the banked track, separating the proposed new features of the infield from banked track riders;
- Circulation of the Bike Park must allow safe use of all zones, assuming most users ride around the park: circulating user routes of each area of the velodrome are planned to avoid crossing of riders in normal use (see sheet 211-4);
- Passive surveillance of all areas of the Bike Park is planned to provide a safe and cooperative environment for all riders and carers of all ages: no 'blind spots';
- All surfaces must assume riding in all weathers and by all abilities: no sharp edges, transitions or unexpected steps are allowed;
- Varying surfaces, directions and slopes must consider and control speeds of riders in their layout and design;
- Any fixtures installed in the Bike Park must be of appropriate location, shape and design to prevent damaging collision
- Design of riding features should promote progression of skills from novice to expert riders, with clear guidelines displayed at each feature area of the expected levels of skill required.



ACCESS AND ENTRY CIRCULATION

The Brunswick Velodrome is travelled to either by vehicle via the local roads, Donald Street and Albion Street from Holmes/Lygon Street, or by bicycle via the Merri Creek Trail shared path from North or South.

The Velodrome Infield is then proposed to be accessed from the Brunswick Cycle Club pavilion or shaded terraces in two possible ways:

1_as proposed here by crossing the banked velodrome track via the existing gate directly to the Central Plaza. This route will arrive at the infield duckboard level and lead to:

- the paved Plaza for coaching and skills;
- the occasional Bagjump sessions proposed;
- the CX/MTB Skills area;
- storage within northern ship container beneath the start platform;
- track event management area and track chutes.

This crossing of the banked track will require caution against possible collision (as is already the case on existing track use), awareness of track riders, and not possible on event days for either infield or banked track.

2_in a future project, by mounting a new bridge adjacent to the shaded terraces alongside the Merri Creek Trail via the rideable ramp or stairway. This route would allow constant access to all infield activities without disruption to banked track riding and events. There is no safety risk of collision between infield users and track riders. The arrival point on the infield is the northern starting platform with choice of access to these areas:

- descent via the rideable ramp or the stairway to the Central Plaza level.
- riding directly into the pump track
- riding directly into the beginner jump line
- to the new judging platform above the banked track finish line.

These choices are all to be offset from the arrival point of the bridge at the platform, avoiding fast riding directly into the areas and the risk of collisions.

ZONE CIRCULATION

Banked Track infield_Duckboard and buffer.

The existing concrete duckboard is to have an extended buffer zone of turf to provide extra slowing space for young and novice riders. This also provides a walking and running loop within the banked track for training and recreation, as well as further space for CX practice and event routes.

Zone A_Pump Track and Jump Line.

Pump Track: From the northern start platform the pump track is to have a generally clockwise circulation though many lines are possible in a well-designed track. The southern start platform provides a second destination for riders needing a rest stop. Each platform provides a location for judging events and a weather-shaded place to wait your turn. These are the highest level areas at around 2.7m height from Plaza level, and provide the best view of all activities, expected to be the favourite social spaces.

Jump Lines: The northern start platform leads into the beginner jump line, landing at the southern platform, only running southwards in one direction. The intermediate jump line is then entered from there, meaning a warm-up run either via the beginner line or the pump track is encouraged before the more demanding jump line is attempted. While both jump lines are uni-directional, there is little chance of collision, and with full surveillance of both lines from both platforms, a natural awareness of all riders is possible.

This area is surrounded by turfed/grassed berming and will be separated from the duckboard and walking/running level by this buffer. These slopes can be incorporated into CX routes for many options of training and race events.

Zone B_ Central Plaza.

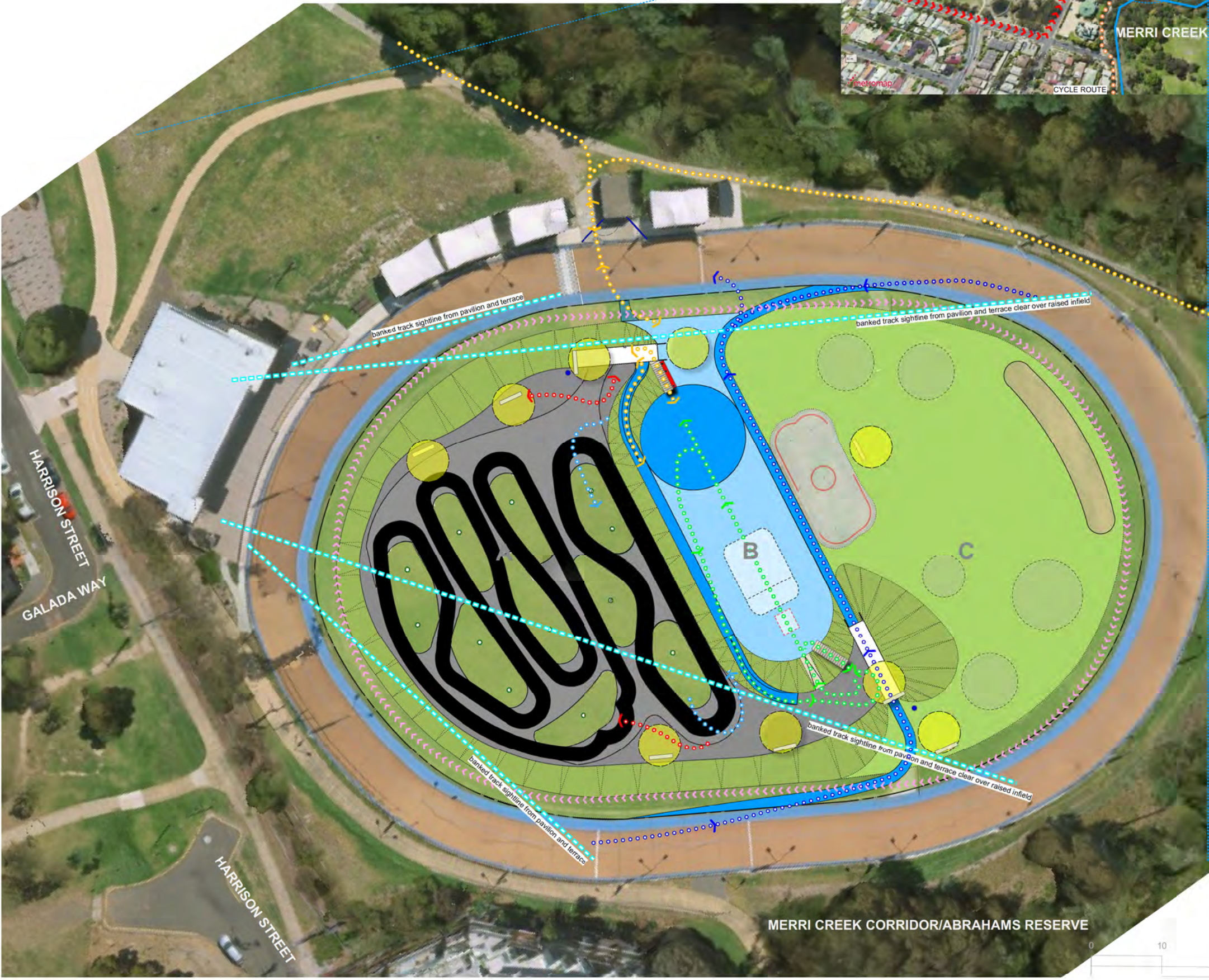
Coaching and riding skills area: This paved area central to the infield is accessed from the northern start platform via ramp or stair and from the banked track directly. It is also rolled into from the southern platform via either 'drop-in' or shallow pitched ramp, and connects with it by stairway.

Bagjump: If ridden into from the ramp the Plaza can be bypassed on the west side by riding directly up the southern ramp onto the southern start platform. This is the best route for lining up for the drop-in to the Bagjump if this occasional session is in progress, as it does not interfere with the anti-clockwise circulation of the jumping. This circulation is separated from the track chute to the east to avoid any clashes here by jumpers returning and riders dropping in. If the take-off is aborted the rider can re-enter the jump queue via the stairway on the east side, which should have a cycle rail alongside. The queue is kept east of the ramp to leave most of the southern start platform free for the pump track and jump lines.

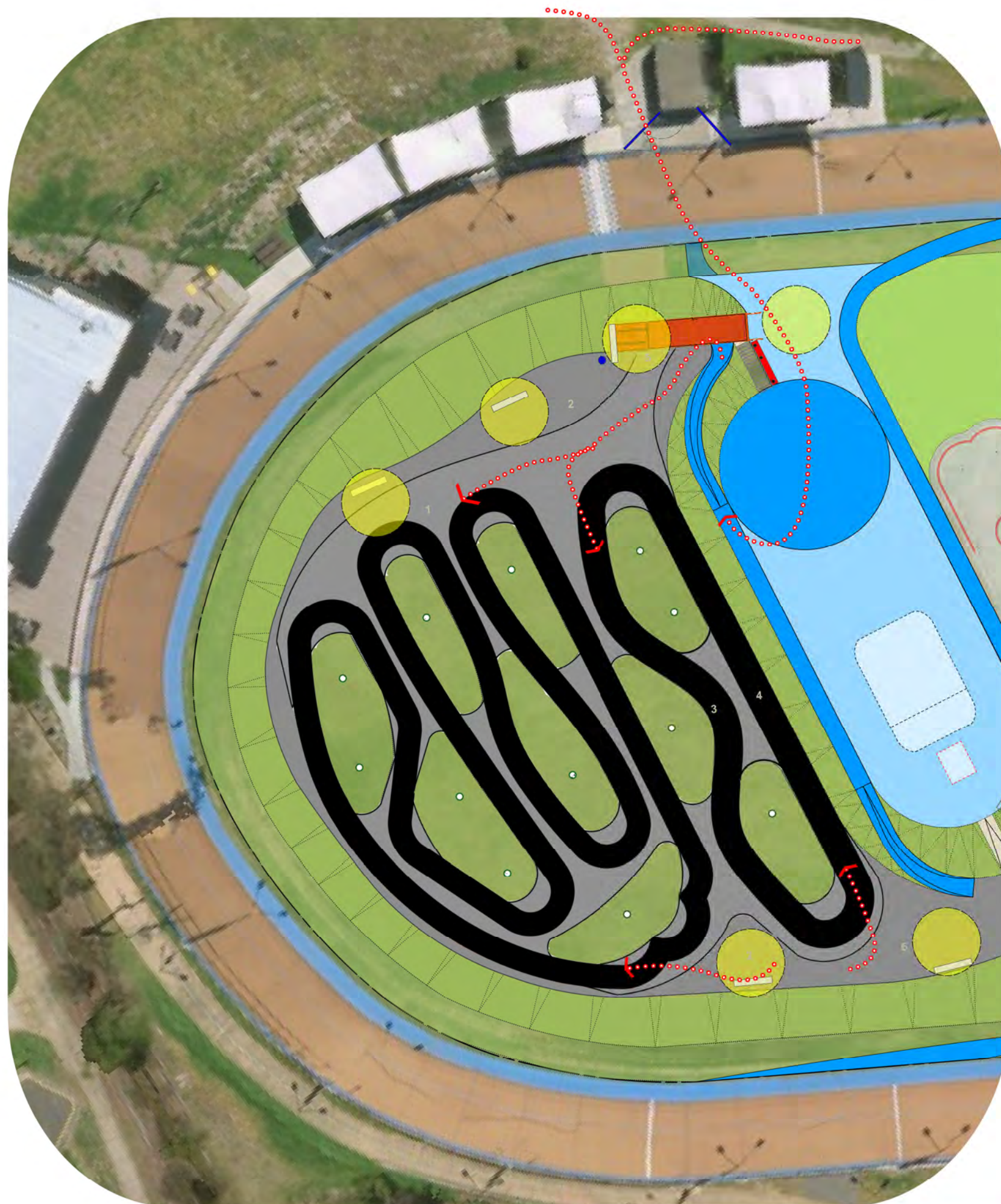
Track Chute: This paved way on North and South end of the turns allows exit from the banked track to the infield, connecting across the infield to provide a queuing line for re-entry to the banked track at North side start line. The two exit chutes provide 2 options for riders to slow down for safe exit onto the infield. The southern chute passes through the ship container tunnel to avoid conflict with any CX and MTB activities.

Zone C_ CX/MTB Skills Area.

This area is accessed from the Central Plaza and is a flexibly laid out open area. If banked track riding is underway the best access is over the tunnel to avoid interrupting the track chute. In using portable features suggested, this is able to accommodate both recreational, coaching and organized event riding.



A	9/4/2021	BRIDGE ACCESS REQUESTED TO BE REMOVED FROM THE CURRENT PROJECT SCOPE.	PROJECT #	211
REVISION	DATE	NOTE	DATE #	9/4/2021
PROJECT		BRUNSWICK VELODROME BIKE PARK	DRWG #	211-4
CLIENT		BRUNSWICK CYCLE CLUB	SCALE & AS	1:1
		Access & Sightlines	DRWN	XX
			CHD	XX
			REVISION	A
Velosolutions Australia				
T: 61 0412807735 714/1 Lygon Street, Brunswick VIC 3066				
W: www.velosolutions.com E: vivian.ta@full@velosolutions.com				



ZONE A_PUMP TRACK AND JUMP LINES

Pump Tracks are hotspots for all kinds of riders, seeking a fun and action-filled sports experience. The best asphalted tracks are both playground and training facility for bikers, skateboarders or scooter riders at any skill level. The pump tracks become a hive of community activity and a highly popular destination. Riders enjoy practicing the basic skills of carrying momentum, balance and speed by using their arms and legs to pump their bike/board/scooter around the track. As the rider gets better, the tracks are designed to provide more challenges with the increased speed and skill, with no changes to the construction. A feature that a 5-year-old can roll through can be used as a gap jump for a professional.

The design allows for multiple continuous laps without rejoining the start hill, thus riders are able to create the exertion desired, e.g. equivalent to a lap of an Olympic BMX race track or a mountain bike downhill trail. The track layout is extraordinarily dense and offers a huge amount of variety in line choice and transfer options, making it not only a fun venue for training stamina and coordination, but also an exhilarating playground for freestylers of any discipline.

1_ALL WHEELS PUMP TRACK _1500- 1800m² area of the following specifications:

- designed and constructed to UCI Pump Track World Championships Qualifier standards
- 1200m² minimum track area
- minimum of 4 potential start platforms
- straights of roller features for generating speed and jumping option
- berms at least 1.8m in height
- steep smoothly radiused berms for choice of rider speed and progression
- progressive feature design to promote rider skills and confidence development
- elevated rest platforms well spaced around the track layout
- extremely smooth asphalt surface throughout with a closed surface texture
- asphalt thickness of 80mm minimum for quality and durability reasons
- asphalt laid at minimum rate of XXX/m/hr
- minimum track length of XXXm
- side batters sloped down to external ground level at 40°, or less

2_START PLATFORM _ large social viewing areas to include the following:

- judging location for north and south sides of the track, shaded
- enough space for approx. 30 riders to congregate between runs
- clear space at track edges for take-off without collision with those waiting

3_JUMP LINE- BEGINNER

- 250m² in area
- minimum of 2 potential start platforms
- berms at least 1.8m in height for turning at ends or run
- mix of table top jumps of lower but progressive height and length
- progressive feature design to promote rider skills and confidence development
- elevated rest platforms
- extremely smooth asphalt surface throughout with a closed surface texture
- asphalt thickness of 80mm minimum for quality and durability reasons
- side batters sloped down to external ground level at 40°, or less
- minimum track length of 40m.

4_JUMP LINE- INTERMEDIATE

- 250m² in area
- minimum of 2 potential start platforms
- steep berms at least 1.8m in height for turning at ends or run
- mix of table top and gap jumps of progressive height and length
- progressive feature design to promote rider skills and confidence development
- elevated rest platforms
- extremely smooth asphalt surface throughout with a closed surface texture
- asphalt thickness of 80mm minimum for quality and durability reasons
- side batters sloped down to external ground level at 40°, or less
- minimum track length of 40m.

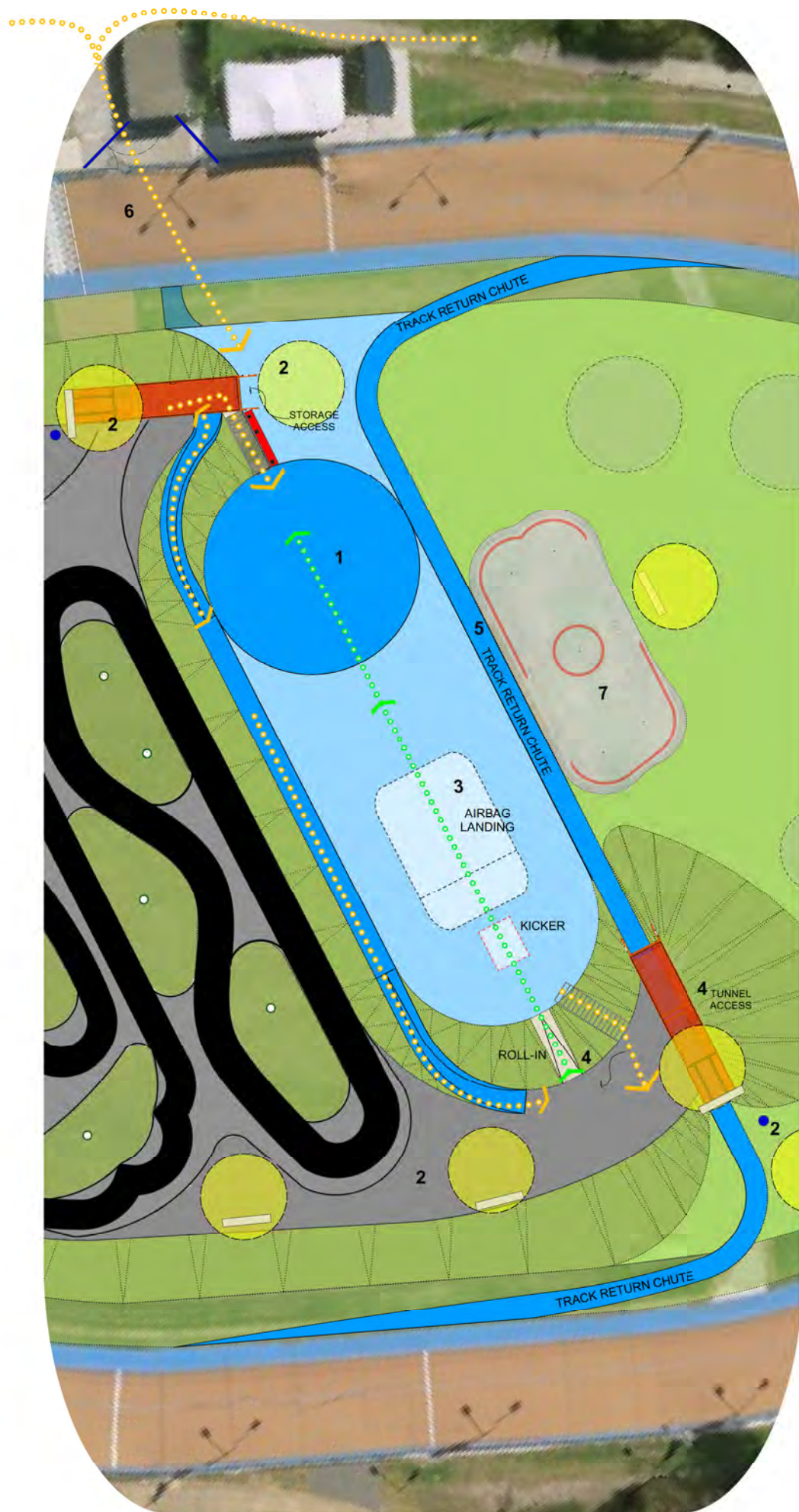
5_JUDGING STATION WITH SHADE _replacement covered location for banked track and pump track event supervision.

- canopy fixed to ship container platform with appropriate balustrading.
- usage counter should be installed at this point of entry to show user data for infield, assuming track gate existing entry is discouraged.
- this location has full surveillance of the whole infield at a height of approx. 2.7 m from banked track duckboard level.

6_SUNSHADE CANOPY _fixed fabric shade on durable steel structure.

These are to be approx 6m diameter to shelter several riders, event managers and judges for several hours. They should be low maintenance and resistant to rain, winds and sun.





1 Plaza
Scale: 1:200

ZONE B CENTRAL PLAZA

1_PAVED PLAZA

The central paved area is to be 15 metres wide and at least 45 metres long, accessed from both ends from the two start platforms. It is to be used for general riding skills coaching, events, mtb trials and portable skills features courses for advanced skills coaching.

The surface can be one of the following materials:

- painted conventional asphalt or crushed rubber asphalt using a smooth surface mixture suitable for small wheeled equipment. Drainage would be via introduced edge drains requiring a cambered surface to the Plaza, side to side.
- resin-bound aggregate: this uses recycled stone and glass material with binders to produce a permeable surface for an integral and level drainage solution to the Plaza.
- rubber paving: this uses recycled rubber with PU binder in many colours for a soft-fall and grippy surface safe for action sports and play. It would have more rolling resistance than harder paving but for training areas it is safer for riders. This paving is also permeable for stormwater allowing a level surface.

2_SUN SHADE CANOPIES

These are to be free-standing sun and rain canopies suitable for riders and event staff to shelter from strong sun and rain. They are intended to be permanently fixed fabric structures, much like the existing northern terrace shading, though with a circular shape complementing the infield shapes proposed. There are to be four structures, one for each of the start platforms and one at each end of the track chute centrally.

3_'BAGJUMP' AIR BAG

The Bagjump air bag is proposed for occasional session use managed by Brunswick Cycling Club to provide MTB and BMX jumping practice and development. This riding skill is part of both Slopestyle and Dirt Jumping disciplines and is part of many international events held for MTB and BMX. With the rideable bag landing proposed, this gives riders a safe progression of skills and tricks before taking them to a dirt or paved surface for the first time. The take-off ramp is portable on its castors and will be stored with the landing in the northern ship container when not in use. The Plaza has been sized to allow for this equipment to be set up for organized sessions and removed for use of the Plaza, given its large size. Circulation of this bag jump has been designed to avoid compromise of other activities on the infield, excepting the Central Plaza when operating. See <https://bagjump.com/en/airbags/onepiece-bike-landings/>

Crucial requirements of this facility are as follows:

- 'Skatelite' roll in ramp at least 2.5m and 3m in height
- 'Skatelite' take off ramp with 2 take-offs at different heights
- Bagjump rideable landing approximately 8m wide x 10m long (full thickness)
- 500m² in area including run out after landing

4_DROP IN PLATFORM & TUNNEL

The Drop-in for Bagjump and other skills and events is a paved ramp down the grassed berming below the southern start platform. The platform level is paved over the southern ship container that provides a tunnel connection under the southern berming, allowing uninterrupted use of the banked track cross-connection. The platform is connected with the Plaza level by a gentle rideable ramp on the West side and a stairway with cycle rolling rail on the East of the Drop-in ramp. The platform provides standing, viewing and socialising space for riders and spectators of the central plaza, jump line and pump track. It can also come into play for a CX race route when this is arranged by the B.C.C. The berming around the platform on all sides is varied in slope to allow many options for these routes.

5_TRACK CIRCULATION & TRACK CHUTES

The cross-connection of the infield between banked track straights is a 1.5m paved track ending at north and south with a graduated exit chute from the banking turn. This provides slowing space for riders before stopping in the central plaza and queuing for a next turn on the track. The exit chutes are located to allow either an exit at south after a slowing half lap after the main finish line at north-west of the banked track, or if using the southern finish line or a missed exit, a northern exit chute allows exit before the start line on north straight.

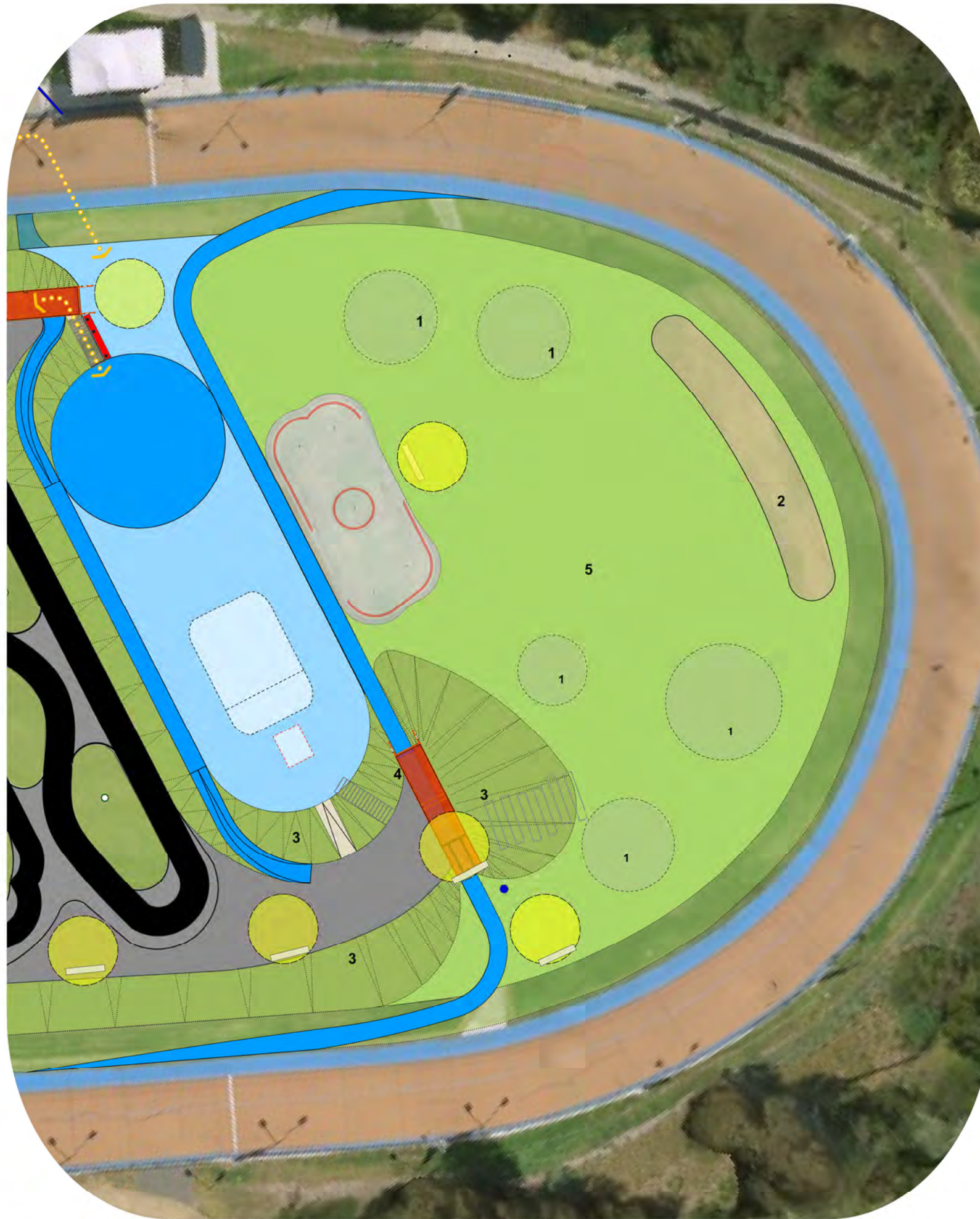
6_INFELD ACCESS OVER TRACK

The proposed access to the infield is as existing from the northern trackside terracing into the the northern central plaza of the infield. This is positioned alongside the existing kiosk building where there is an existing gate in the trackside fencing, and would provide an activating effect outside the kiosk openings, should this be put into use again.

7_KIDS'/ADAPTIVE PUMP TRACK

The proposed lower amplitude Pump Track for novice riders on balance bikes, small BMX and kids' bikes as well as adaptive cycles is immediately adjacent to the central plaza for optimum coaching facility. This allows the faster riders on the main Pump Track to enjoy their riding while novice riders work their way up to the larger track by improving their skills on this easier loop. It can also be built into CX routes and just be enjoyed by other types of riders such as skaters and scooters too.





1 MTB/CX Park
Scale: 1:200

ZONE C CX & MTB SKILLS AREA

1_ EARTH MOUNDS, TURFED

The cyclocross and MTB skills area of turfed and grasses with earth mounding, formed from any material moved from the Zone A and B areas. These berms provide features to ride around and over for both the cyclocross and MTB disciplines. They should be varied in heights, from 0.5m to 1.5m with varied diameters.

2_ SAND PIT FOR CYCLOCROSS

The turfed surface of the skills area is opened up to provide a long sand pit suitable for cyclocross practice and events. This should be minimum 4m width and depth of around 0.3m. The sand should be cleaned, round and not clay-mixed or sharp.

3_ TURFED BANKING FOR CYCLOCROSS RACE ROUTES

The turfed earth berms of the Zones A and B are intended to be available for cyclocross practice and race events. These slopes are varied in height and length, with possible inclusion of 'Belgian Steps' to the longer slope against the tunnel area. The 'steps' would be made in timber sleepers set into the dirt with crushed rock infill.

Estimated Cost_ \$ 2500 for Belgian Steps.
(banking cost included on Zone B information, Sheet 211-8).

4_ SHIP CONTAINER TUNNEL WITH STAIR ACCESS UP AND RAMP DOWN

The tunnel made from a recycled ship container with earth berming over it, located to provide through-access for banked track riders moving under the cyclocross and MTB riders on the southern start platform. The access onto the platform is via either ramp of stair on the northern slope.

5_ OPEN DIRT AND TURFED AREA FOR EVENTS, CX RACE ROUTE, MTB SKILLS FEATURES

This flat area is open turfed ground and flexible for cyclocross and MTB skills practice. The use of portable riding features, such as Velomaster Skills Park modules, can be arranged in variable configurations for all levels of skills coaching and practice. Some compacted dirt areas may be used but these should be maintained in the interior of the area to avoid transfer of grit and gravel onto the plaza and banked track. The grassed buffer zone around the perimeter of the infield will help prevent this transfer too.

SKILLS PARK EXAMPLE



ZONE A_ PERFORMANCE SPECIFICATION RECOMMENDATIONS

1_ ALL WHEELS PUMP TRACK

- a_The design for the Pump Track should provide for riding at all levels, from novice to elite professionals.
b_The track layout should allow for multiple continuous laps without rejoining the start hill, thus riders are able to create the exertion desired, e.g. equivalent to a lap of an Olympic BMX race track or a mountain bike downhill trail.
c_The track layout should offer a huge amount of variety in line choice and transfer options, making it not only a fun venue for training stamina and coordination, but also an exhilarating playground for freestylers of any discipline.
d_designed and constructed to Red Bull UCI Pump Track World Championships Qualifier standards.
e_1200m² minimum track area and approximately 250m length.
f_minimum of 4 potential start platforms, elevated and well spaced around the track layout for good rider surveillance.
g_straights of roller features for generating speed and jumping options.
h_berms at least 1.5m in height.
i_steep smoothly radiused berms for choice of rider speed and progression.
j_progressive feature design to promote rider skills and confidence development.
k_side batters sloped down to external ground level at 40°, or less.
l_extremely smooth asphalt surface throughout with a closed surface texture for all wheels and safe all weather riding.
m_asphalt thickness of 80mm minimum for quality and durability reasons.
n_asphalt laid at minimum rate of 0.2 tonnes/sqm (minimum 80mm thickness) on crushed stone base.
o_the kids/adaptive pump track should be a maximum of 0.9m height berms and rollers with lower features included for best progression and coaching

2_ START PLATFORMS_ large social congregation areas to include the following:

- a_judging location for north and south sides of the track, shaded
b_enough space for approx. 30 riders to congregate between runs
c_clear space at track edges for take-off without collision with those waiting

3_ JUMP LINES_ BEGINNER AND INTERMEDIATE

- a_steep berms at least 1.5m in height for turning at ends of one direction runs allowing for continuous loop riding;
b_mix of table top jumps of lower, for beginner, but progressive height and length.
c_progressive feature design to promote rider skills and confidence development.
d_elevated rest platforms as detailed above.
e_extremely smooth asphalt surface throughout with a closed surface texture.
f_asphalt thickness of 80mm minimum for quality and durability reasons.
g_side batters sloped down to external ground level at 40°, or less

GENERAL ACCESS REQUIREMENTS

- a_changes to gates or facilities should not inhibit all abilities access and where possible, additional access provisions to be included to increase access for all abilities.
b_changes to gates or facilities installed on the south side of the velodrome banked track where the existing vehicle width gate opens to the cycle path, are not to adversely impact emergency vehicle access.
c_provision for development and implementation for a supporting site signage strategy should be included as a priority to the Stage. 1. development of the project.
d_all parts of the velodrome facility should be accessible to all users safely and without supervision or management. by the nature of their appropriate design.

SAFETY IN DESIGN

NOTE_ Specific safety considerations include, but are not limited to:

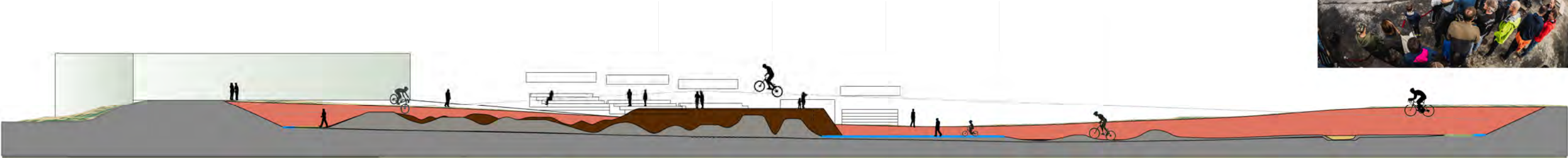
- Clear and visible entry from outside the Velodrome onto the banked track and into the infield must consider track riding at speed is likely;
- Differing speeds and abilities of riders are considered in the site planning of the developed velodrome: eg.a new 3m minimum width 'buffer zone' of turfed level area is to be provided between the level 'duckboard' at the foot of the banked track as a run-off area, especially from the banked track, separating the proposed new features of the infield from banked track riders;
- Circulation of the Bike Park must allow safe use of all zones, assuming most users ride around the park: circulating user routes of each area of the velodrome are planned to avoid crossing of riders in normal use (see sheet 211-4);
- Passive surveillance of all areas of the Bike Park is planned to provide a safe and cooperative environment for all riders and carers of all ages: no 'blind spots';
- All surfaces must assume riding in all weathers and by all abilities: no sharp edges, transitions or unexpected steps are allowed;
- Varying surfaces, directions and slopes must consider and control speeds of riders in their layout and design;
- Any fixtures installed in the Bike Park must be of appropriate location, shape and design to prevent damaging collision
- Design of riding features should promote progression of skills from novice to expert riders. with clear guidelines displayed at each feature area of the expected levels of skill required.

BRUNSWICK VELODROME BIKE SKILLS PARK ESTIMATED COSTS

In line with the possible staged development of the project, below are shown the summary of estimated costs for each stage.
The construction of the proposed works are assumed to be on grade, with only topsoil scraped to existing subsoil. While a geotechnical report should be carried out to establish suitability of construction specification, the expected existing fill and drainage would require the proposed on-grade construction. The inspected drainage outlet and site fall allow for piped surface water drainage recommended in Zone A and B construction. Any engineering consultant's costs will be extra to the estimates below, as will any Council procurement costs.

STAGE 1	_ZONE A_ Pump Track 255m length; Jump line 98m length; associated surrounding landscaping	=\$435,000
	ZONE B ship container storage	=\$ 10,000
	ZONE B Banked track exit chutes and crossing connection paving	=\$ 20,000
	ZONE B Plaza circle for coaching and event management; access ramps to Plaza level	=\$ 30,000
	ZONE A 6 shading canopies and 6 seats	=\$ 50,000
	ZONE A drinking fountain	=\$ 5,000
	ZONE A site signage strategy - clear guidelines for all features and their access	=\$ 5,000
	Total Stage Estimate	=\$555,000
STAGE 2	_ZONE B_ Central Plaza paving extended, Southern Start platform extension	=\$ 60,000
	_ship container Crossing Tunnel and berming	=\$ 25,000
	_3 shading canopies and 3 seats	=\$ 25,000
	_drinking fountain	=\$ 5,000
	_Kids/Adaptive Pump Park (300sqm)	=\$ 65,000
	_bike maintenance stand (2 stands, tools attached, tyre pump)	=\$ 30,000
	Total Stage Estimate	=\$210,000
STAGE 3	_ZONE C_ CX/MTB Skills Area turfed with sand pit	=\$ 55,000
	_Belgian Steps, portable / permanent obstacles and built features, Purchase of Bag Jump	=\$100,000
	_Walking/running Buffer Area turfed	=\$ 45,000
	Total Stage Estimate	=\$200,000
	Contingency of 10%	=\$ 95,000

TOTAL ESTIMATED COST **=\$1,060,000**



BRUNSWICK CYCLING CLUB PAVILION

PUMP TRACK

JUMP LINES

CENTRAL PLAZA

TRACK CHUTE

CENTRAL PLAZA

SANDPIT

GRASS BUFFER
DUCKBOARD

BANKED TRACK

1 LONG SECTION THROUGH SITE
Scale: 1:200



REVISION	2009/2021	Additional scope to cost
PROJECT	BRUNSWICK VELODROME BIKE PARK	PROJECT # 211
CLIENT	BRUNSWICK CYCLE CLUB	DATE # 20/08/2021
DRAWN	XX	SCALE: B3 A3
CHKD	XX	REVISION B
Section, specification & cost estimate		
Velosolutions Australia		
T: 61 0412807735 714/1 Lygon Street, Brunswick VIC 3056		
W: www.velosolutions.com E: vivian.fairfull@velosolutions.com		

- K**

The proposed facilities shown in this Masterplan are to be procured as required by Local Government regulation.

The Zones shown are considered as almost equivalent to the priority of facilities to be constructed if funding demands that this is staged.

With this approach possible, the recommended Stages are shown here, intended to maximise the initial use of the bike park and allow the further development of the facility as funding allows.

Stage 1 is concerned with providing the Pump Track and Jump Lines, along with the banked track paved chutes and central plaza area. The improvement to track cycling operations would also be enabled, in order to maintain safety of riders and these regular Club events. Access to the infield would best to be via a new overhead bridge, as discussed in detail sheet 211-5, though this would require further funding in a subsequent project.

This first provision would enable the Brunswick Cycle Club to offer the core programs planned to diversify the riding disciplines and therefore the age group they aim to encourage.

Stage 2 is to extend the use of the Central Plaza, both in track operations and in coaching opportunity, with greater space provided for events. The second start platform extension with large berm and tunnel would begin to develop the CX routes possible around the Stage 1 perimeter berms and buffer zone. The Kid's and Adaptive Pump Track extends the scope of rider ability catered for and provides further coaching capability in the plaza.

Stage 3 would further develop the infield with CX and MTB features in Zone C, with sand pit and mounding provided in the grassed area. The introduction of the Bagjump, to be operated occasionally within the central plaza, will complete the MTB and BMX facilities, though this equipment may be decided to be prioritised earlier in Stage 1 or 2, given its massive popularity and small capital outlay and flexibility of operation.

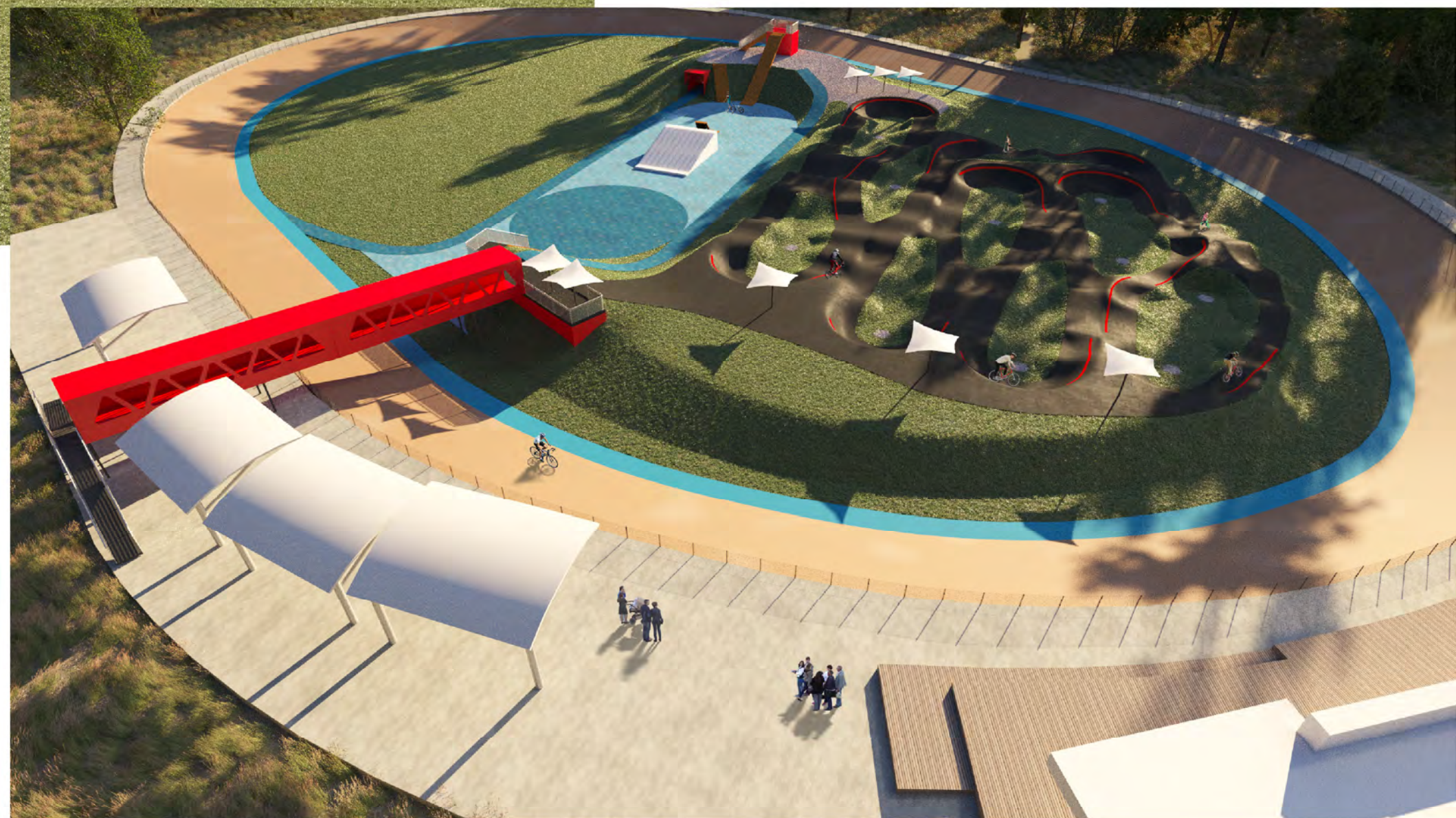
The final recommendation to both B.C.C. and Moreland City Council is the renovation of the kiosk for either Club or independent community use in support of the Velodrome's operation. This could be any of the following:

- _a much needed food and drink outlet
- _bike maintenance workshop, managed by a local Social Enterprise
- _bike storage extension for Club or community
- _Ride Nation-backed coaching base

Though this suggestion for the kiosk may be considered separately from the Infield Bike Park, it would compliment it well.



A		96042021		BRIDGE ACCESS REQUESTED TO BE REMOVED FROM THE CURRENT PROJECT SCOPE.	
REVISION	DATE	NOTE			
PROJECT	BRUNSWICK VELODROME BIKE PARK			PROJECT #	211
CLIENT	BRUNSWICK CYCLE CLUB			DATE #	9/04/2021
	SCALE	@	1:1	DWG #	211-1
DWG	Construction Sequence and Cost Summary			DRAWN	XX
	CHWD	XX	REVISION		



A		9/04/2021		BRIDGE ACCESS REQUESTED TO BE REMOVED FROM THE CURRENT PROJECT SCOPE	
REVISION	DATE	NOTE		PROJECT #	
PROJECT		BRUNSWICK VELODROME BIKE PARK			211
CLIENT	BRUNSWICK CYCLE CLUB		DATE #	9/04/2021	DWG #
			SCALE (B3	1:200	211-11
DWG	Artists impressions		DRAWN	VF	
			CWID	PS	REVISION



velosolutions
 T 01 641267273 F 01 641271181
 www.velosolutions.com.au



Think & Build Velosolutions GmbH

Via Stenna 4, 7017 Flims – Schweiz
velosolutions.com

Headquarters Switzerland

+41 81 911 12 12
info@velosolutions.com

Velosolutions Australia

+412 807735/ +409 853 567
vivian.faithfull@velosolutions.com

phil.saxena@velosolutions.com



**LET'S MAKE SPORTS ON WHEELS ACCESSIBLE, FOR
EVERYONE – EVERYWHERE.**