



# **COMOX VALLEY EXHIBITION GROUNDS:** **CONCEPTUAL SITE PLAN AND IMPLEMENTATION STRATEGY**

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# 1.0 INTRODUCTION / EXECUTIVE SUMMARY

The Comox Valley Exhibition Grounds (CVEG) has played a central and multi-dimensional role in the community for several decades, primarily focused on serving agricultural, equestrian and canine organizations in the Valley, for example the Comox Valley Therapeutic Riding Society (CVTRS) . It has been the home to both the annual Fall Fair (Exhibition) and the Curling Centre since the 1950's, and more recently has been the venue for Vancouver Island MusicFest, RibFest, Logger Sports, and a wide range of other events. Every Saturday during the warmer months, it is also the location of the increasingly popular Comox Valley Farmers' Market. CVEG also acts as a key recreational open space for both residents and visitors, whether for dog-walking, swimming in the Tsolum River or students from Vanier Secondary School tending to their community garden plots.

Over the past couple of decades, Comox Valley Regional District (CVRD) has continued to invest significantly in planning, development, and maintenance of the CVEG property and its site infrastructure. This includes initiatives such as the 2002 Master Plan, the 2008 Revitalization Study, major upgrades to the water and electrical servicing in 2011-12, and a 2017 Master Plan update including significant community/user engagement. The Vision included within the 2017 Master plan is still pertinent today:

*“The Comox Valley Exhibition Grounds are at the heart of the region. They reflect the region's history and heritage and provide a year-round venue for a wide range of community events. The informal recreation areas provide a green and pleasant environment for the region's residents to walk, ride and enjoy the treed banks of the Tsolum River. The Exhibition Grounds are the location of the region's Curling Centre and a variety of other buildings, large and small, that serve as program and event venues for a wide range of community organizations. It is the region's facility and while it is owned by the Comox Valley Regional District, it is managed and governed by community volunteers and Regional District staff and elected officials working collaboratively together.”*

In the summer of 2020, CVRD retained Urban Systems Ltd. (Urban) to complete a *Conceptual Site Plan and Implementation Strategy* for the Comox Valley Exhibition Grounds (CVEG), particularly to consider the potential impacts, issues and opportunities for the the long-term development of the overall CVEG property.

This summary report builds upon and advances the foundational planning and engagement work already completed, for example by translating the technical considerations, goals, objectives and strategic recommendations provided within the 2017 Master Plan (see *Section 4*). It is intended to reflect and respond to the needs of the community and stakeholders, while serving as a useful planning and implementation tool that will assist in future decision-making for CVRD and informing future capital project priorities at CVEG.

Through site investigations (*Section 2.0*), an initial Programming Workshop (*Section 3*), milestone reviews with the project team and feedback from CVRD leadership, a Conceptual Site Plan has been developed to help plan and integrate future implementation work at CVEG, while also considering the surrounding and on-site transportation network, land uses, site servicing and natural features such as the Tsolum River and riparian forest.

*Section 5.0* provides a detailed description of the site improvements proposed within each of the following seven CVEG sub-areas, in addition to the surrounding road network and on-site multi-modal roads and pathways.

**A - Dove Creek Field**

**B - Lower Field**

**C - Rotary Bowl**

**D - Market Field**

**E - Curling Centre and Kin Hut Field**

**F - Upper Ring and CVTRS**

**G - Stonehenge Farm Expansion**

Cost estimates for the proposed infrastructure and amenity improvements have been provided for each of the sub-areas within *Section 6.0*, along with road, parking, pathway and utility infrastructure that will service several areas of the site. In alignment with the CVRD's strategic goals, this work is contemplated over a 10-year planning horizon. *Section 7.0* provides recommendations for short-term (1-2 years), medium-term (3-5 years) and long-term (6-10 year) implementation priorities. Additional recommendations for foundational work that will facilities upcoming design and construction are also provided in *Section 7.4*.

## 2.0 SITE CONTEXT AND EXISTING CONDITIONS

The Comox Valley Exhibition Grounds consists of almost 74 acres (30 hectares) of agriculturally zoned lands, including the newly acquired 8.7 acre (3.5 hectare) Stonehenge Farm property. As show in the Site Plan (**Figure 1**) below, the expanded Exhibition Grounds property fronts Headquarters Road along the north-east, Dove Creek Place along the north-west, Tsolum River and forest to the south-west and a large rural parcel to the southeast, which is currently home to an antique furniture store.

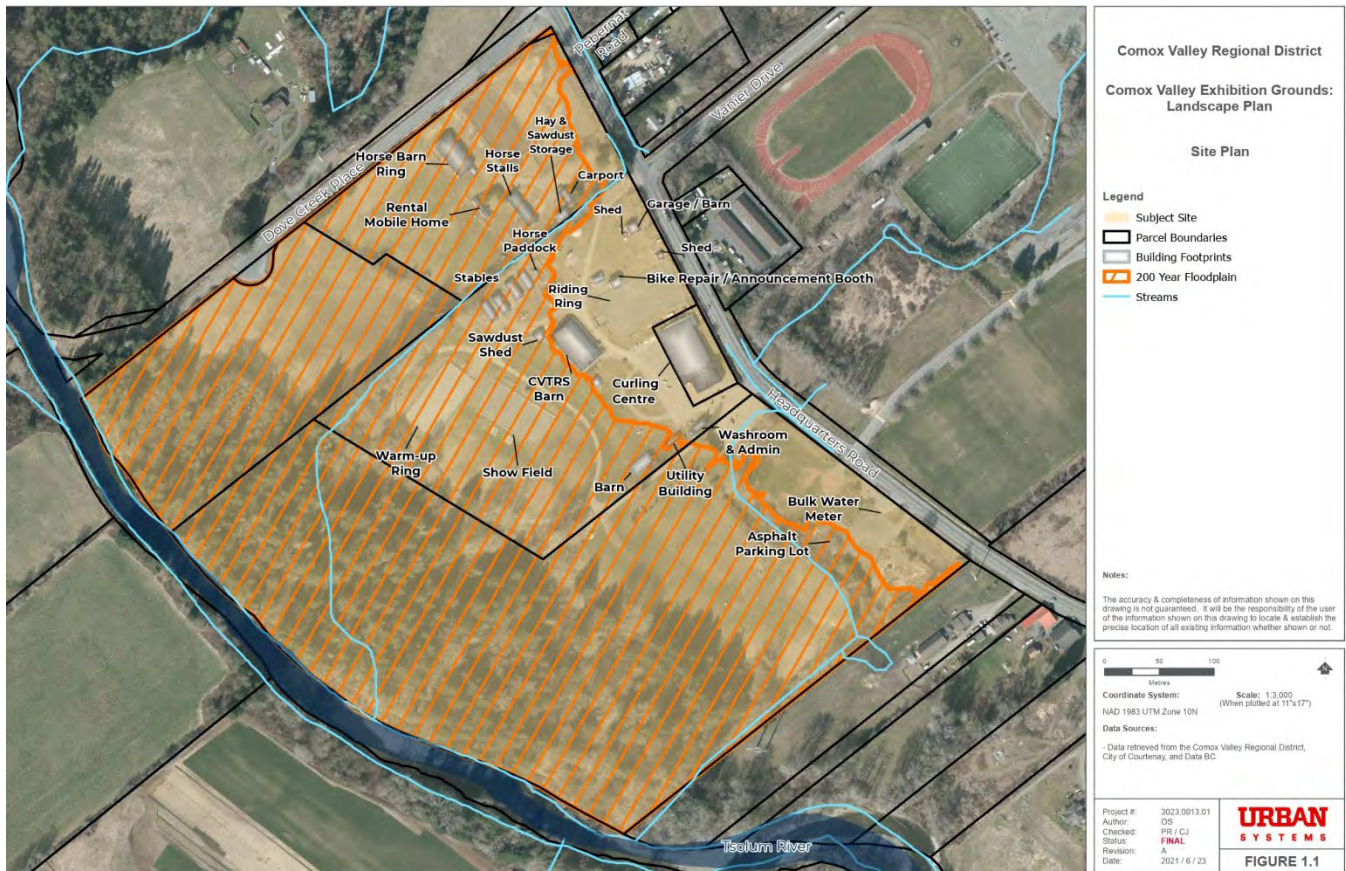


Figure 1: Existing Site Plan

The CVRD owns the grounds and facilities and is responsible for their operation and maintenance, including the newly acquired Stonehenge Farm. However, specific facilities and areas of the grounds are leased or rented to various groups throughout the year, for example:

- Comox Valley Curling Centre
- Comox Valley Farmers' Market
- Comox Valley Therapeutic Riding Society
- Fall Fair (Comox Valley Exhibition)
- Various community/user groups (e.g. equestrian, dog agility, etc.)

At the onset of the project, an initial *Site Analysis* review was conducted on-site with the CVRD project team, including CVEG Operations Manager Mike Morrissey and Resident Caretaker Gary Jerzak. This analysis is discussed in further detail within *Section 4.0* below, together with user needs and site programming. It provided the foundation for the investigations summarized below, including:

- Site Access and Mobility
- Site Servicing Infrastructure
- Environmental Considerations

## 2.1 SITE ACCESS AND MOBILITY

### Site Access, Parking and Circulation

The site's main public vehicular access is currently located along Headquarters Road, at a significant corner near the front entrance to the Curling Centre. The 'CVEG South Gate' and an additional chained driveway (aligned with Schellinck Drive) provide access to Market Field, while the 'CVEG North Gate' provides access from the Vanier Drive intersection. Stonehenge Farm's main access is along Dove Creek Place and there is an existing gated access to Dove Creek Field from the cul-de-sac at the end of the road. A site plan including the transportation and site access routes is included as **Figure 2** below.



Figure 2: Transportation and Site Access

Historically, the site has been accessed via private vehicle traffic of all sizes, including larger vehicles such as buses and livestock trailers. However, sustained and increasing parking pressures exist that negatively impact popular community and regional events such as the weekly Farmers' Market. This parking situation is exacerbated by the limited transit access and service levels to the site, along with a lack of high-quality multi-modal connections, such as walking and cycling facilities that are safe for all users (e.g. sidewalks and roadside pathways).

The existing site configuration offers a fragmented mobility network and informal, un-signed trail system. The site offers hard-surface (aged asphalt) parking facilities mostly in proximity to the Curling Centre. However, during weekly Farmers' Markets, this space may be used directly by vendors (seasonally depending on ground condition of the primary market area) which places strain on the available parking facilities. Market days often see an overflow of parking demand along Headquarters Road, blocking the currently painted roadway shoulder and ultimately removing any space for active transportation users. In turn, this creates a safety concern for event attendees and those travelling past the site by active means.

In addition, where alternative parking opportunities exist (Georges P Vanier Secondary School and Comox Valley Sports Centre), there are no safe crossings along Headquarters Road. Ensuring off-site parking is well connected to the site would offer safety benefits for event attendees while dramatically improving the visitor experience.

### **Mobility Review**

To better assess existing issues and potential opportunities, we have prepared and included a high-level mobility review within **Appendix A**. The mobility improvements identified through this site planning exercise focused on overall mobility, loosely defined as one's ability to:

- Reach the site and travel through it using various means;
- Navigate throughout the site easily, even with events running simultaneously;
- Recreate year-round (walking, trail use, etc.);
- Park various types of vehicles for numerous purposes; and
- Consider overall accessibility to ensure the site can accommodate all members of the community.

### **Wayfinding**

Whereas the above proposed mobility improvements relate to transportation and mobility infrastructure, programming to facilitate site movements is also recommended. This would include the development of a formal wayfinding program which could include site gateway signage, amenity and facility signage, educational and historical information kiosks, and directional signage such as trailheads and site mapping. In addition, familiar event specific signage may help direct event vehicles and attendees and could provide flexibility (sandwich boards, flip-board arrows, temporary parking facilities) while maintaining consistent signage styles.

The development of a wayfinding program and options could be a short-term improvement, particularly with event specific signs and trailhead signage to improve the well-used trail system along the Tsolum River trails. Gateway signage, facility signage, etc. may also be designed through a site branding exercise and be implemented alongside appropriate site improvement projects such as formalized accesses and end-of-trip bicycle facilities (e.g. covered bike racks) at key site locations and facilities.



## 2.2 SITE SERVICING INFRASTRUCTURE

A key aspect of the project includes a site servicing review for the CVEG property and the newly acquired Stonehenge parcel. The review included the existing infrastructure of both the private services within the site, as well as the municipal services currently available. **Appendix B** includes the site servicing report that contains a high-level overview of the existing site services on-site and the municipal services to the site such as water, sewer drainage and power utilities.

Water servicing is provided by two connections to the City of Courtenay water main along Headquarters Road. Fire protection of the site is supplied via City hydrants. The onsite water system network supplies almost the entire site area, while a separate water service and meter supplies the Curling Centre building. There is little information available regarding water servicing to the Stonehenge site. City records show an existing water service to the Stonehenge property from Headquarters Road, assumed to service the current (and former) home on-site.

The site is currently connected to the City of Courtenay sanitary sewer system through three services connected to the sewer main along Headquarters Road. The Stonehenge property does not appear to have any sanitary service connections and is therefore assumed to be serviced by a septic system and disposal field on-site.

There is currently no underground stormwater infrastructure on the site. The northern and eastern site boundaries are lined with drainage ditches and culverts at the driveway access points along Headquarters Road. Due to the lack of site drainage and its location within the 200-year flood plain of the adjacent Tsolum River, the site is prone to flooding. Areas of specific concern include the Rotary Bowl, Stonehenge Farm and the trails along the Tsolum River, which experience periodic flooding and washouts.

Site power is supplied by overhead connections to the BC Hydro system supplying the electrical building south of the Curling Centre, as well as the Stonehenge site. The electrical building then supplies the site's lighting systems, buildings, and other power connections via underground servicing. On-site electrical infrastructure was not confirmed for the Stonehenge site.

As noted in the paragraphs above, the site servicing memo identifies gaps in the existing site data, particularly for the Stonehenge Farm site. It is recommended that the CVRD completes a detailed site survey and site servicing review of the Stonehenge Farm site to confirm the existing infrastructure in preparation for anticipated design and construction works.

A schematic of the existing servicing and utility systems is included below as **Figure 3**.

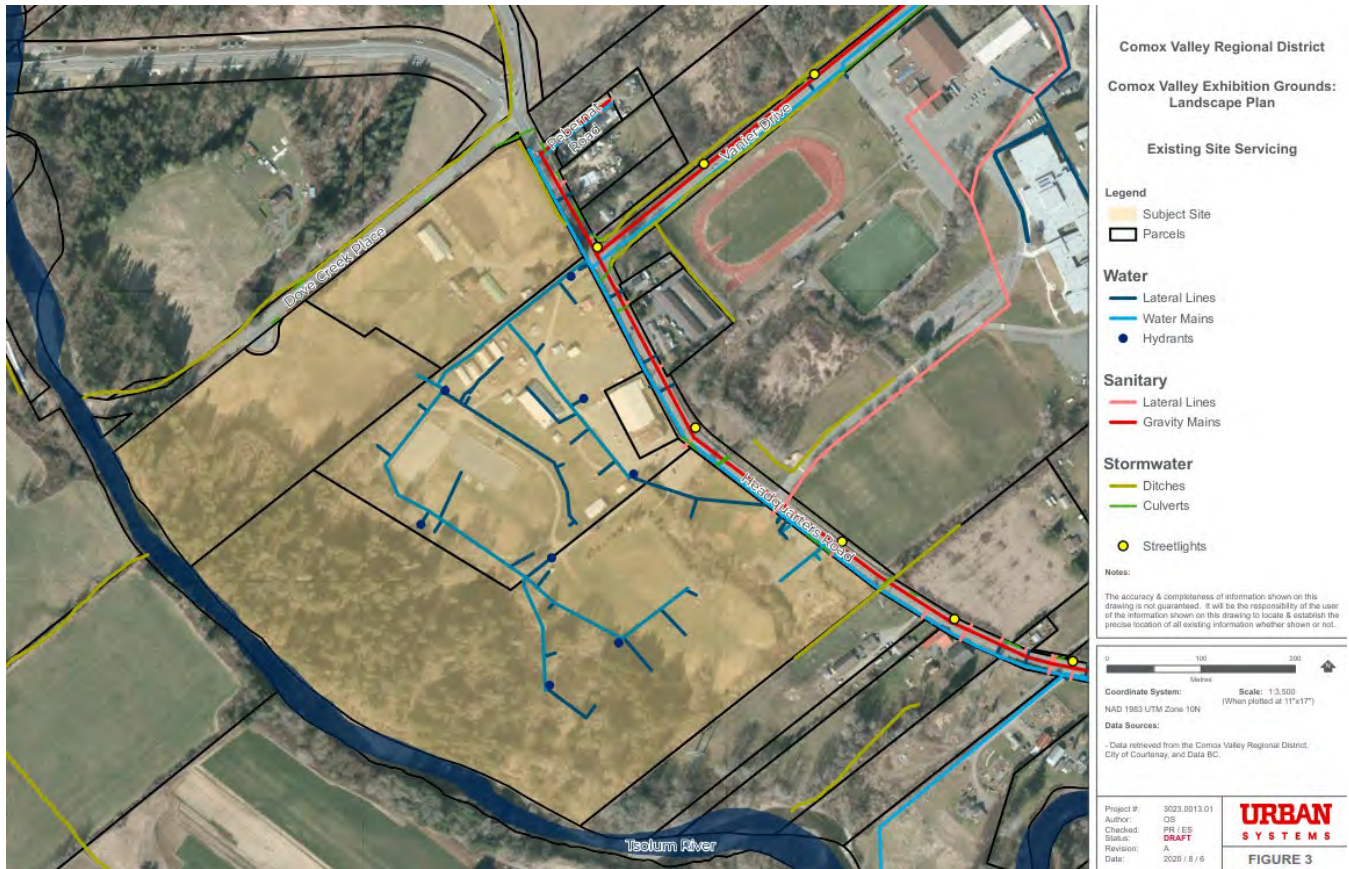


Figure 3: Existing Site Servicing

## 2.3 ENVIRONMENTAL CONSIDERATIONS

Comprised largely of open pastures and mature forest with both the Tsolum River and Vanier Creek watercourses running through it, the CVEG property provides habitat for local flora and fauna, in addition to its role as a central community hub and regional events centre. Current environmental features and relevant considerations, potential regulatory requirements, as well as proposed recommendations for future planning and development of site infrastructure and facilities are provided within the review memo in **Appendix C**.

Located completely within the Agricultural Land Reserve (ALR), the CVEG site falls largely within the 200-year floodplain of the Tsolum River (see **Figure 4**). According to CVRD staff, the Rotary Bowl is prone to flooding and trails along the Tsolum River occasionally wash out due to flooding, especially during high tide events in the winter. Most of the CVEG site drains well after rain events, except for the parcel in the northern corner of the site (former Stonehenge Farm) as it sometimes contains pools of water up to one metre deep in the fall. The 200-year Tsolum River floodplain setback should be a primary consideration in the planning and construction of buildings and infrastructure within the project area.

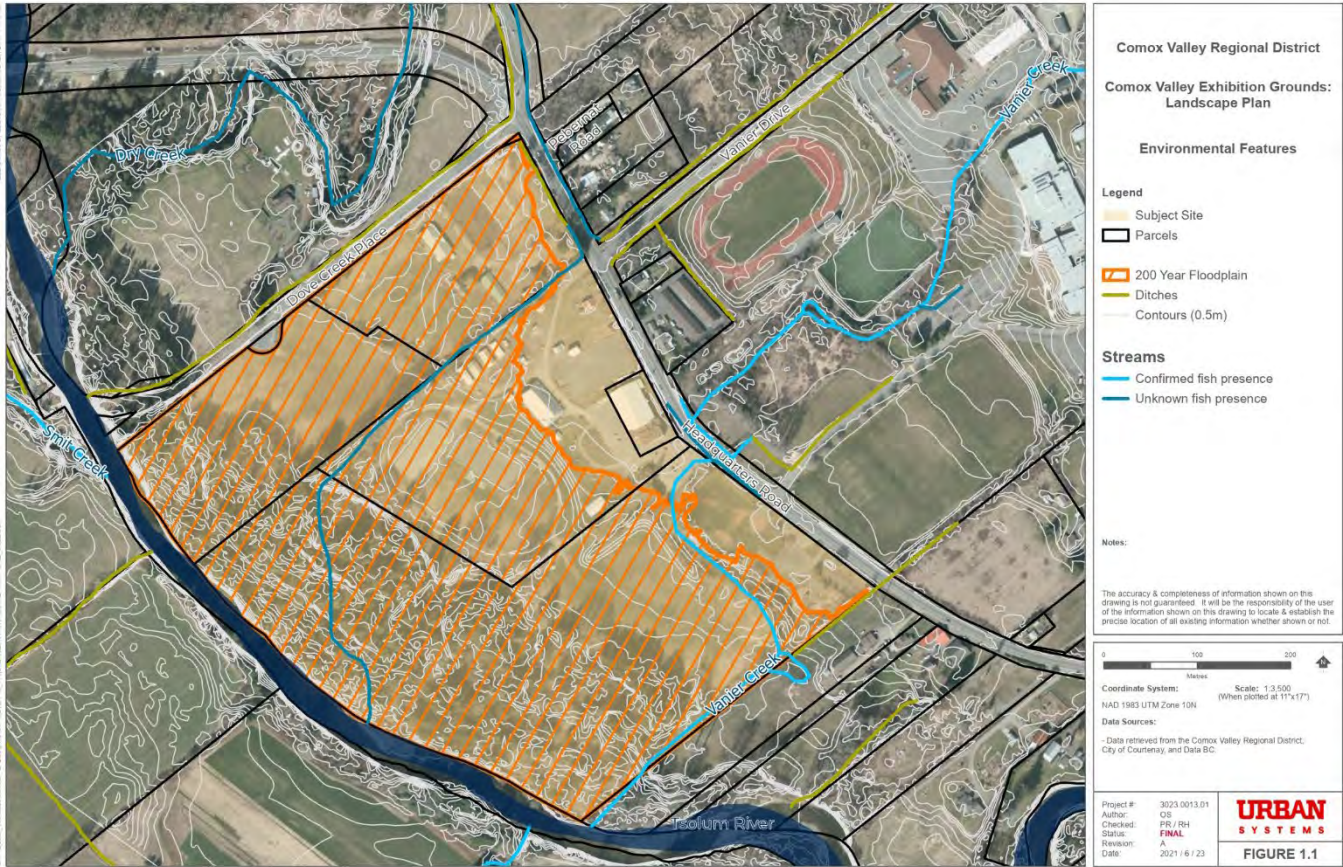


Figure 4: Site Topography and 200-Year Floodplain

The Environmentally Sensitive Areas within the project area are shown on **Figure 5** and can be summarized as follows:

- The eastern bank of the Tsolum River consists of well-established riparian forest (considered a sensitive ecosystem), which extends approximately 150m from the riverbank.
- The following environmental sensitivity buffers are required based on the City of Courtenay's Official Community Plan (OCP):
  - Tsolum River = 30m
  - Vanier Creek = 30m
  - On-site ditches and unnamed streams = 5m

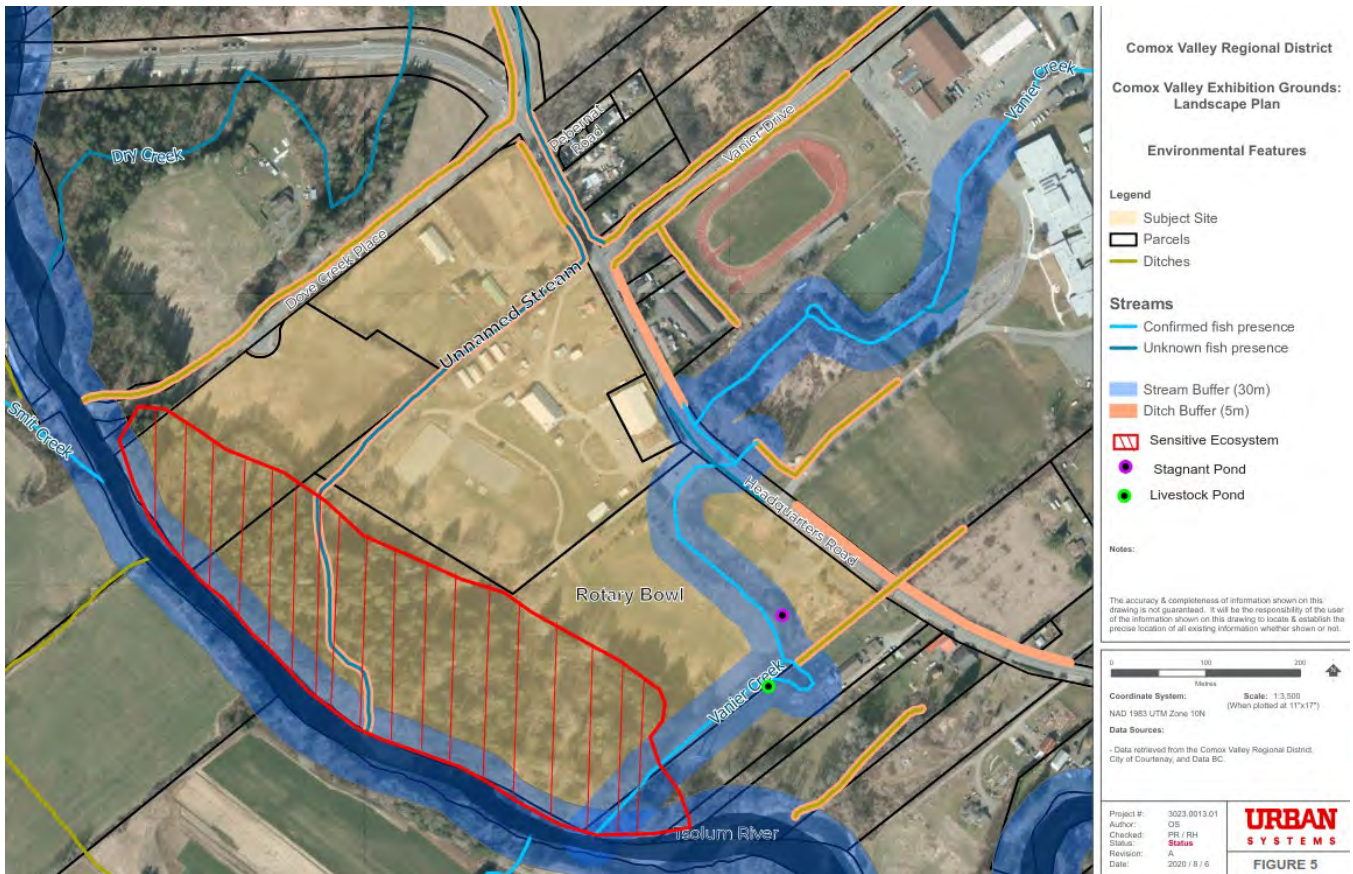


Figure 5: Environmental Features

An Environmental Development Permit may be required for works within the river and stream buffers noted above. The Environmental Considerations memo (Appendix C) provides a summary list of potential permits and applications related to the proposed site improvement, including federal, provincial, and municipal regulatory requirements.

### **3.0 GOALS, OBJECTIVES AND DESIGN PRINCIPLES**

#### **Goals & Objectives:**

During the Programming Workshop with the District's project team (see *Section 4.0* below), it was determined that the following goals and objectives developed through the 2017 CVEG Master Plan process still apply today and should be carried forward:

1. To provide a pastoral location for the leisure and enjoyment of the region's population.
2. To protect the Tsolum River and its riparian environment.
3. To limit the construction of permanent buildings to the area above the 200-year floodplain level where possible (open air structures may be considered with appropriate mitigation of design and construction risks).
4. To serve as an event centre for a wide range of community organizations, primarily those with agricultural and equestrian roots.
5. To provide a venue for the Farmers Market.
6. To develop collaborative governance and management capabilities.
7. To allow for smooth passage and parking of vehicles.
8. To meet high environmental standards in all aspects of the site's development.

#### **Design Principles:**

A set of design principles that collectively describe the vision for the site and how it functions were developed through the *2002 Master Plan* and carried forward (verbatim) through the *2009 Revitalization Study* and *2017 Master Plan*. The CVEG project team has confirmed that these principles are still relevant and suitable for the purposes of the current plan, however principles relating to the newly acquired Stonehenge Farm site have also been incorporated.

1. The fairground's primary function is as an agricultural fairground and therefore proposals should support and not detract from this function.
2. The calibre of the open spaces should be high with an emphasis on natural and open environments.
3. The forested riverside portion of the site should be protected and managed as nature preserve. Vanier Creek should be protected and enhanced. Both the Tsolum River and Vanier Creek should be embraced in the site planning as unique landscape features.
4. Buildings and facilities should be grouped to create positive open spaces.
5. The fairgrounds should be planned to efficiently accommodate simultaneous events.
6. Facilities on the fairgrounds should be multi-functional wherever feasible.
7. The site should have a high degree of legibility to orient first time attendees and to simplify rental agreements.
8. Efficient vehicle movements on and off the site need to be planned for especially during large events. Summertime overflow parking needs to be provided.
9. Additional permanent parking should be provided very cautiously to avoid detracting from the qualities of the fairground.

10. Separation between non-compatible uses should be planned for. Likewise, grouping of compatible uses should be planned for.
11. Safety and universal access should be provided for.
12. The aesthetics of the fairgrounds should be preserved and enhanced.
13. New and existing buildings should have a form and character that supports the vision statement. In general buildings should conform to a West Coast Pioneer Farm theme. This would entail buildings that generally feature unpainted cedar board & batten or shingle siding, galvanized (non-coloured) or cedar shake roofs and rustic details and finishes. Concrete, vinyl and other modern finishes should be avoided wherever possible.
14. Proposed facilities at the fairgrounds should not compete directly with established businesses.
15. The master plan should be fiscally and environmentally responsible.
16. Buildings and functions that cannot be justified according to the fairground's vision statement should be removed over time.
17. Rows of trees should be planted to green the site and build on the rural agrarian theme. Ornamental landscaping should be avoided and considered for removal where it cannot be justified.
18. Where feasible install permanent event infrastructure (fencing, washrooms, etc.) to minimize setup/breakdown labour.
19. The newly acquired Stonehenge Farm should be integrated over time into the overall programming, site layout and circulation of the larger Exhibition Grounds property, while maintaining current operations as a revenue-generating farm in the interim.

## 4.0 COMMUNITY ENGAGEMENT AND SITE PROGRAMMING

### Engagement with Community User Groups

The Comox Valley Exhibition Grounds property is enjoyed regularly by local residents, consistent long-term renters and user groups, along with thousands of visitors who attend large regional events each year. As part of the 2017 Master Plan process, informant interviews and focus groups were held with key individuals and organizations (see *Appendix G – Users and Uses*; and *Appendix H – Groups Consulted*), including but not limited to:

Seasonal booking organizations:	Event booking organizations:
<ul style="list-style-type: none"> <li>• Comox Valley Curling Centre</li> <li>• Comox Valley Therapeutic Riding Society (CVTRS)</li> <li>• Comox Valley Farmers' Market</li> <li>• K911 Dog Sports</li> </ul>	<ul style="list-style-type: none"> <li>• Comox Valley Exhibition Association (Fall Fair)</li> <li>• Vancouver Island Music Fest</li> <li>• Courtenay Rotary Rib Fest</li> <li>• Agricultural Groups:               <ul style="list-style-type: none"> <li>○ Comox Valley District 4H</li> <li>○ Comox Valley Farmers' Institute</li> </ul> </li> <li>• Equestrian Groups:               <ul style="list-style-type: none"> <li>○ Comox Valley Pony Club</li> <li>○ Courtenay CADORA</li> <li>○ North Vancouver Island Horse Association (NVIHA)</li> <li>○ Backcountry Horsemen</li> <li>○ North Vancouver Island Rodeo Association</li> </ul> </li> <li>• Dog Groups:               <ul style="list-style-type: none"> <li>○ Forbidden Plateau Obedience and Tracking Club</li> <li>○ Roadsters Agility Club</li> <li>○ Trailblazers Agility Training</li> </ul> </li> </ul>

*Appendix D – Views of Public and Stakeholders* within the 2017 Master Plan provides insight and guidance into the specific needs of different types of user groups. The CVEG project team has confirmed that this user-based input is still current and therefore it has been used to inform the development of the proposed Conceptual Site Plan (see *Section 5.0 below*).

This Conceptual Site Plan Implementation Strategy should be considered a living document; indeed it represents a brief 'snapshot in time' when considering the long and rich history and use of the site. It is anticipated that there will be further opportunity for engagement user groups and stakeholders to provide feedback on the concepts, ideas and costs presented within this report that will further inform the implementation process.

## Key Site Program Considerations

Building upon the user group planning needs identified within the 2017 Master Plan and recently completed mobility, site servicing and environmental site investigations (per *Section 3.0* above), a Programming Workshop was held with CVRD leadership to establish key program elements and priorities to be included within the proposed Conceptual Site Plan layout and can be summarized as follows:

- All new buildings and significant site infrastructure should be located below 200-year floodplain wherever possible. Potential grading/drainage improvements should be considered to address localized flooding of the existing arena areas, particularly during the storm surges and king tides in the fall.
- Desire for a year-round Farmers Market venue or other type of on-site accommodation (number of users likely to remain constant in the near future).
- Improved / increased washroom facilities should be considered to better accommodate dog walkers, equestrians and their spectators, etc., particularly accessible facilities to be used during events (porta potties are not sufficient). Attendees are currently required to access facilities away from event venues, which presents challenges.
- A key focus of the *2017 Master Plan* was the potential for a future Agriplex building within the CVEG property, however it is no longer a short-term priority and may instead be re-considered several years in the future. For the purposes of the current plan, a proposed location that could accommodate a future Agriplex building and associated parking should be identified.
- Potential for a a new indoor riding arena with spectator seating to be used primarily for equestrian and agricultural events. This was a key recommendation within the *2009 Revitalization Study* and remains a desired amenity to support the long-term development of CVEG. The Stonehenge Farm parcel could be considered for this purpose.
- The bulk water station along Headquarters Road is currently being reconfigured, however it will remain in its current location. To be considered when exploring potential options for CVEG's main site access.

Summary notes for the original *Site Analysis and Programming Workshop* are provided within **Appendix D**. These initial programming ideas and intentions were then further refined through milestone reviews of the draft Conceptual Site Plan with both the CVEG project team and CVRD leadership.



## 5.0 CONCEPTUAL SITE PLAN

With a base understanding of the key site conditions and programming priorities established, Urban Systems prepared a *Conceptual Site Plan* incorporating existing and proposed site features and amenities. A detailed summary of the proposed site improvements is shown on the *Zoning Diagram* (**Figure 6**) below and broken down as follows:

### Surrounding Road Network

- Headquarters Road
- Dove Creek Place

### On-site Multi-modal Roads and Pathways

- Main Spine Road
- Tsolum Way
- Rotary Bowl Access Lane
- Tsolum River Trails

### Site Plan Zones

- A - Dove Creek Field
- B - Lower Field
- C - Rotary Bowl
- D - Market Field
- E - Curling Centre and Kin Hut Field
- F - Upper Ring and CVTRS
- G - Stonehenge Farm Expansion



Figure 6: Zoning Diagram

The *Zoning Diagram* is included within a larger drawing package in **Appendix E** that also contains the *Conceptual Site Plan* (**Figure 7**) shown below, as well as the multi-modal road cross-sections (**Figures 8 and 9**) further described in *Section 5.2*.



Figure 7: Conceptual Site Plan

## 5.1 SURROUNDING ROAD NETWORK

### 5.1.1 HEADQUARTERS ROAD

Headquarters Road is a key regional connector with sustained traffic, there are numerous existing access points to the CVEG site and adjacent properties along Headquarters Road. This includes larger traffic intersections such as Schellinck Drive; Vanier Drive; Dove Creek Place and nearby Piercy Road. It is therefore important that any upcoming improvements to the Headquarters Road route consider all transportation modes and promotes multi-modal connectivity to the CVRD and City of Courtenay networks.

The shoulders along Headquarters Road are frequently used as overflow parking during events at CVEG, including the weekly Farmers' Market held on Saturdays throughout the spring to fall seasons. This creates significant safety concerns for vehicle and cyclist traffic along the road, as well as pedestrians trying to access the CVEG site. Reducing parking on Headquarters Road also aligns with the goals in the 2014 *Comox Valley Road Network Plan* and the City's 2019 *Connecting Courtenay - Transportation Master Plan* - to make Headquarters Road a safe route for cyclists.

Recreational amenities within the Regional District are also mentioned within the CVRD's draft *Active Transportation Network Plan*, including improved connections between the Comox Valley Sports Centre, Vanier Secondary School, and CVEG. A pedestrian connection across Headquarters Road would improve connectivity between these amenities, make better and more efficient use of existing parking facilities and improve access for all modes. The crossing is envisioned as a thermoplastic sidewalk with signage and overhead flashers to notify vehicle traffic when a pedestrian is waiting to cross. This will improve visibility and safety of visitors to the site and other neighboring amenities.



*Site Photo 1: Headquarters Road. Looking north-west, with existing Market Field driveway access on left.*

To further increase safety along Headquarters Road and improve the functionality of the internal road network, the following site access changes are also proposed:

- Shift current Market Field driveway access to the east property boundary; and
- Decommission / restrict access to the existing Curling Centre driveway (retain for emergency/event access only)

Where new accesses are recommended, a driveway permit must be sought from the City of Courtenay. Zone-specific considerations regarding Headquarters Road are further detailed within the sections below.

### 5.1.2 DOVE CREEK PLACE

Dove Creek Place is an existing local road along the north property boundary that provides the primary vehicular access to Stonehenge Farm, as well as gated access to Dove Creek Field. It was recently converted to a dead-end cul-de-sac, after the former bridge across Tsolum River was removed. The existing Stonehenge access is proposed to be upgraded as a secondary access for the larger CVEG site, while also providing a key connection to the proposed Main Spine Road that will traverse and connect the key site facilities and amenities. This could also relieve congestion along Headquarters Road, while providing better connectivity and traffic flow towards CVEG's internal parking lots.

Parking is not currently permitted along the road and cul-de-sac, although in practice the shoulders are used daily as parking for the Tsolum River trail network. As an alternative, a 10-vehicle gravel parking lot is proposed along the north edge of Dove Creek Field, formalizing access to the Tsolum River Trails while improving safety and operations along Dove Creek Road.



*Site Photo 2: Dove Creek Place. View from end of new cul-de-sac, with access to Dove Creek Field and Tsolum River trails.*

## 5.2 ON-SITE MULTI-MODAL ROADS AND PATHWAYS

### 5.2.1 MAIN SPINE ROAD

A Main Spine Road is proposed as a new multi-modal corridor stretching across the entire site, connecting the two main entrances along Headquarters Road (Market Field and Vanier Drive) and the secondary entry along Dove Creek Place to key facilities, parking and amenity areas on-site. Per the cross-section shown below, Main Spine Road will consist of a paved bidirectional road, complete with a paved and illuminated 3-4m wide pedestrian walkway, treed boulevard, and vegetated swale conveying stormwater on the opposite side.

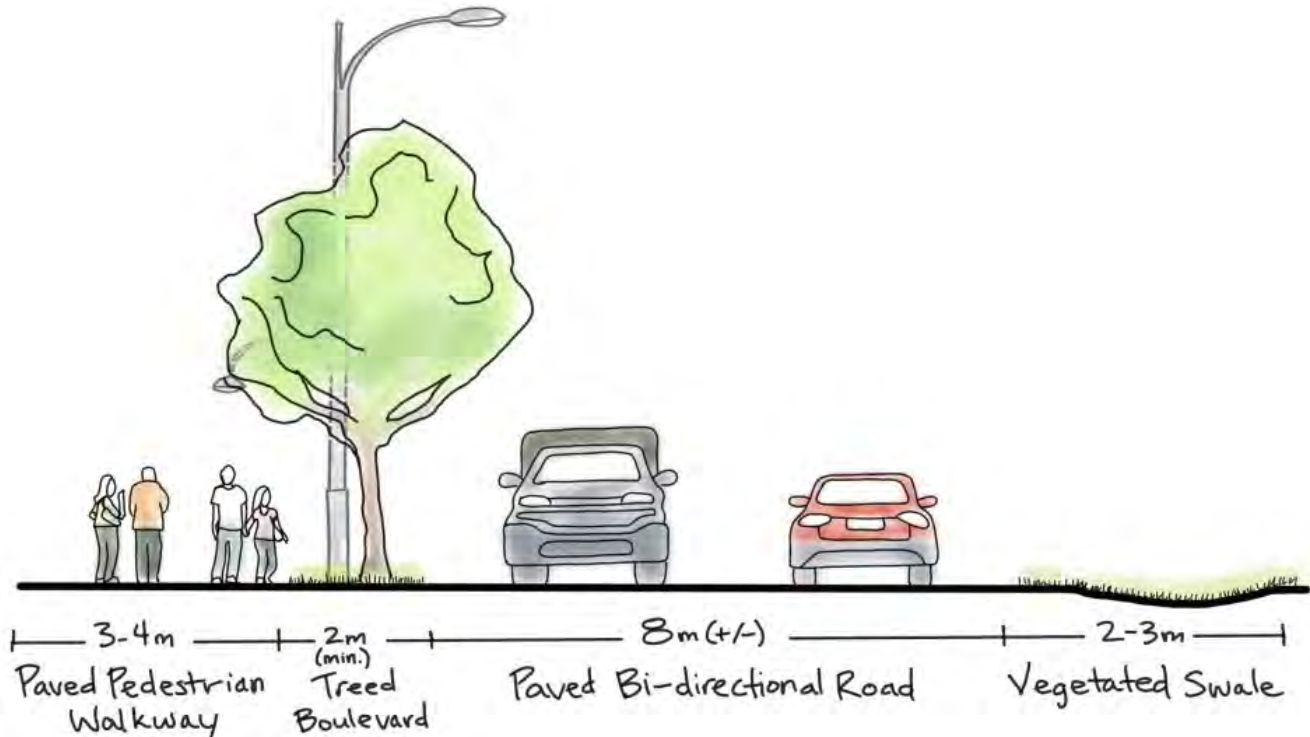


Figure 8: Main Spine Road – Proposed Cross Section (typical)

It is intended to provide a safe, physical barrier between vehicular and pedestrian/cyclist traffic, while significantly improving the gateways to the site and associated visitor experience. Controlled gate access at key locations will allow vehicular traffic to be separated when multiple events are happening simultaneously.

### 5.2.2 TSOLUM WAY

Primary access to the Lower Field, Rotary Bowl and the Tsolum River trails is provided via a one-lane gravel road with overhead vehicular lighting connecting to the Curling Centre parking lot (and future Main Spine Road). This narrow gravel lane is shared between large vehicles (e.g. truck with horse trailer) and significant numbers and variety of pedestrians and their pets, especially on weekends or during events. As the volume and pressure of visitors increases with the continued development and intensification of the site, it is recommended that this existing gravel lane (unofficially named Tsolum Way within this report) is upgraded to provide safe and effective connectivity across the site.



Site Photo 3: Tsolum Way - existing gravel access lane connecting Curling Centre with Lower Field, Rotary Bowl and the Tsolum River trailhead.

Tsolum Way is proposed as a bi-directional gravel road and a granular, illuminated pedestrian pathway. The vehicular and pedestrian traffic will be physically separated via a vegetated swale to promote pedestrian safety and proper drainage. The redeveloped road should maintain the existing farm fencing along its east edge for additional safety and separation from vehicular traffic, however it will likely need to be shifted to accommodate the wider proposed cross-sections.

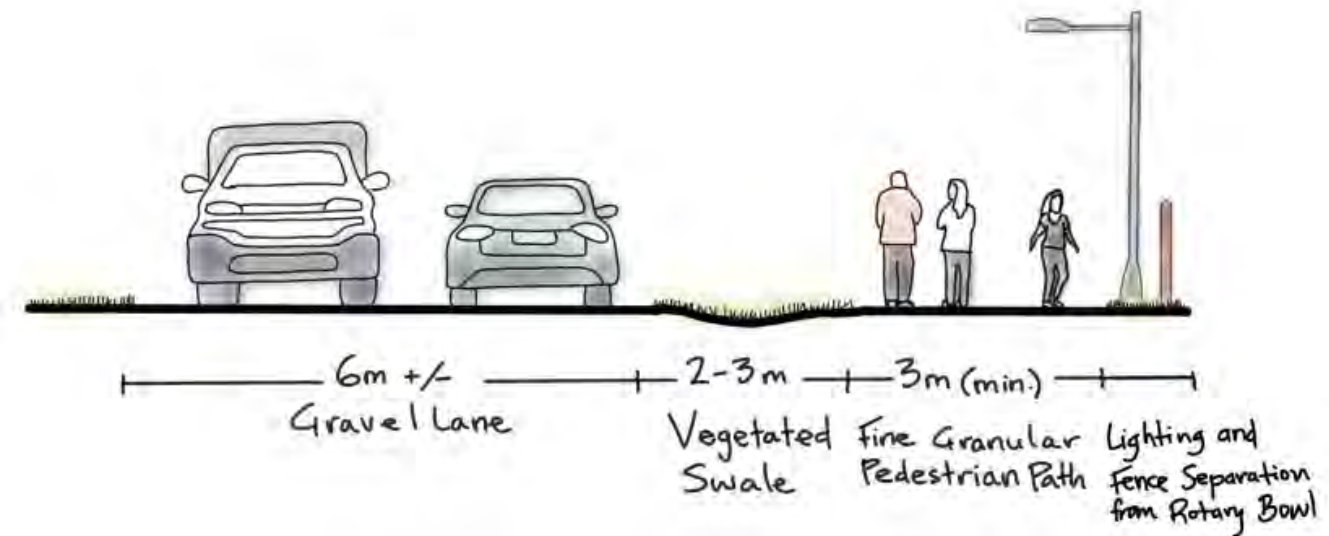


Figure 9: Secondary Road (Tsolum Way) – Proposed Cross Section (typical)

### 5.2.3 ROTARY BOWL ACCESS LANE

Absence of proper emergency circulation and large vehicle access to the Rotary Bowl for operations/maintenance and events was identified within the Mobility Review conducted by Urban Systems (see **Appendix A**) and further discussed with the CVEG project team during the Programming Workshop. As a result, a gravel access lane is proposed along the east and south borders of Rotary Bowl, connecting the proposed Main Spine Road alignment with the improved intersection at Tsolum Way.

The access lane should hug the existing tree line (with appropriate setbacks) to maximize available open space for events within the Rotary Bowl. It is anticipated that vehicular access to the lane will be gate-controlled, however it is recommended that pedestrians, cyclists, and equestrians are able to use this route as part of the overall connectivity network. As the new access lane will intersect with existing Vanier Creek, a proper stream crossing is proposed (e.g. culvert), and measures should be taken to avoid disturbance to the creek during construction (per *Section 2.0* above).



*Site Photo 4: Rotary Bowl. Looking north-east with Market Field and Headquarters Road background left.*

### 5.2.4 TSOLUM RIVER TRAILS

The Tsolum River and adjacent forest are important recreational amenities for the community, frequented by hikers, dog walkers, cyclists, equestrians and swimmers of all ages. As described in *Section 2.1* above, these trails connect into the larger City of Courtenay and are an important component of the regional trail network. Informal and dated wayfinding (wooden signs mounted on trees) add to the rustic nature of the trails and do provide some directional value for visitors.

However, the absence of wayfinding signage and map kiosks, particularly where the trails connect to main CVEG site, has been identified as an immediate need and is recommended for

short-term implementation to expand the recreational breadth of the site. The benefits of providing more formal wayfinding signage include:

- Improving access to the existing trails, while clearly demarcating public access;
- General improvement to enjoyment and navigability of the trail system;
- Improved safety in the event of an emergency (as sign posts can be numbered or otherwise identified for emergency response reference).



*Site Photo 5: Tsolum River trail system (typical)*



## 5.3 SITE PLAN ZONES

### 5.3.1 ZONE A – DOVE CREEK FIELD



*Site Photo 6: Zone A - Dove Creek Field. View east from cul-de-sac at end of Dove Creek Place, with Tsolum Forest in background.*

While Dove Creek Field is regularly used as horse pasture, it is also an idyllic setting for camping and overflow activities associated with annual, multi-day events at CVEG. It is a short walk from the main facilities and amenities, as well as the network of recreational trails through the forest lining the Tsolum River. However, Dove Creek Field lies well within the Tsolum River's 1:200-year floodplain and therefore experiences periodic flooding issues. In response, minor drainage improvements, including grading and ditching, are recommended to minimize the frequency/severity of the flooding and reduce functional recovery time.

Although currently prohibited by the City of Courtenay, people regularly park along Dove Creek Place and along the cul-de-sac. In response, a proposed gravel parking lot is proposed as a trailhead at the northwest corner the field, consisting of approximately ten (10) parking stalls. In addition to the obvious road safety benefits, this on-site parking lot would make the trails more accessible year-round and could be used as a staging area for events at Dove Creek Field.

### 5.3.2 ZONE B – LOWER FIELD



Site Photo 7: Zone B - Lower Field. View west from Tsolum Way lane, with CVTRS barn in distance.

The Lower Field is a multi-use outdoor event venue, home to a warm-up ring and show field, a judging booth and granular perimeter track that also provides vehicular access for horse trailers, etc. Primary access to Lower Field is provided from Tsolum Way. However, it is recommended that this intersection is widened to provide a larger turning radius for trailers, as well as reduce potential conflicts with pedestrians. This will increase safety and access to the riding rings, while also supporting the proposed Tsolum Way multi-modal improvements.

### 5.3.3 ZONE C – ROTARY BOWL

Rotary Bowl is an open, grassy field utilized for various events throughout the year. It is serviced with water and power and has a commanding view from the large wooden spectator deck. Per Section 6.2.3, a gated gravel access lane is proposed along the boundary of the Tsolum forest, providing an alternate emergency, maintenance and event access route while relieving pressure from the very busy Tsolum Way.



Site Photo 8: Zone C - Rotary Bowl. Panoramic view looking south-west, with Vanier Creek on left.

#### 5.3.4 ZONE D – MARKET FIELD



Site Photo 9: Zone D - Market Field. Looking west from existing Headquarters Road driveway.

Market Field fronts Headquarters Road within the south-east portion of the CVEG property and is the first introduction to the site when arriving from the east. The Comox Valley Farmers' Market is hosted here every Saturday mornings during the spring to fall months, however a lack of adequate structural base and drainage in the area has caused seasonal usability challenges (e.g. pooling and stagnant water). As outlined in *Section 6.1.7*, the lack of clear and adequate parking on-site also causes safety concerns along Headquarters Road, while the existing electrical infrastructure is not adequate to support the power needs of modern vendors.

Therefore, completion of the proposed improvements to Market Field (per **Figure 7 - Conceptual Site Plan**) could arguably provide the greatest immediate benefit to the site, including the following:

- Relocate Headquarters Road driveway access nearer to east CVEG property boundary, to maximize space for the vendor area while respecting the Vanier Creek setbacks.
- Upgrade and expand the existing Farmers' Market area to allow capacity for approximately 110 vendor stalls:
  - Equipped with new water connections and approximately five (5) new electrical kiosks.
  - Re-surfaced with durable and improved grass surfacing and improved site drainage (e.g. subgrade drains or localized rock pits).
- Reconfigure and expand the existing parking lot (approx. 50-60 stalls), which will:
  - Provide convenient and accessible pedestrian access for Farmers' Market vendors and patrons, including to the washrooms and Curling Centre area.
  - Reduce the incidents of people parking along Headquarters Road, making the road safer for cyclists and pedestrians.

- Construct the first phase of Main Spine Road to improve site circulation and safety, while creating a stronger link to other key site areas and amenities, including washrooms.
- Maintain the existing access for the recently renovated bulk water station on Headquarters Road.

**5.3.5 ZONE E – CURLING CENTRE AND KIN HUT FIELD**

As the main access to CVEG along Headquarters Road, *Zone E – Curling Centre and Kin Hut Field* is a key site hub and includes the centrally located Curling Centre building and parking facilities, along with the large, flat grassy area known as Kin Hut Field, which overlooks the Lower Field below. A summary of the proposed enhancements to Zone E are provided below, including:

- Curling Centre and Parking
- Kin Hut Field
- Tsolum Way Trailhead

**Curling Centre and Parking**

As shown in **Figure 10** below, the next phase of the multi-modal Main Spine Road is proposed to bisect the Curling Centre area and Kin Hut Field and will include the thoughtful crossing of Vanier Creek. As outlined in *Section 2.1 – Site Access and Mobility*, the addition of a new main entry along Headquarters (at Market Field per above), will allow for the decommissioning of the existing Curling Centre driveway access, as well as the reconfiguration and re-purposing of the Curling Centre parking lot.

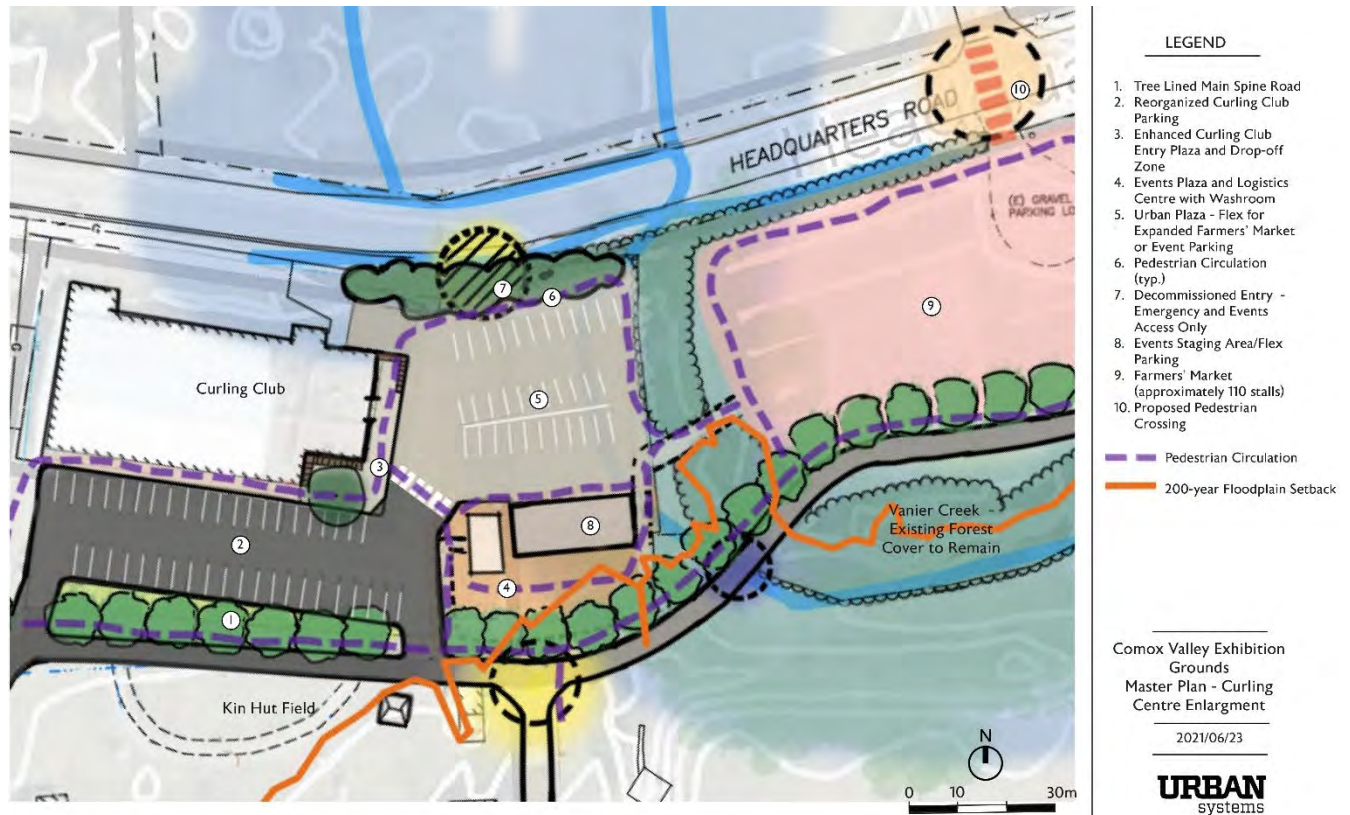


Figure 10: Site Plan Enlargement – Curling Centre Parking Lot Re-configuration



*Site Photo 10: Existing Curling Centre parking lot, with main entrance at blue canopy on right and Washroom / Admin building in center background.*

This change is anticipated to facilitate the following improvements:

- Retention of emergency and controlled event access at existing driveway location.
- Creation of a drop-off area and entry plaza at the Curling Centre's main public entrance, including site furnishings and traffic separators (e.g. planters).
- Reconfiguration of the current parking lot into a flexible urban plaza to be used for events or as overflow for the Farmers' Market.
- Implementation of central and perimeter pedestrian connections to the Farmers' Market, CVTRS Barn and Tsolum Way, in addition to new multi-modal pathway along Main Spine Road.
- Creation of a staging and logistics plaza adjacent to the existing Washroom and Admin building, includes dedicated flex parking, to be used primarily for staff, volunteers and support services during large events.

### **Kin Hut Field**

In the southwest portion of Zone E lies Kin Hut Field - a large, flat, grassy space suitable to host a variety of programs and activities during large events (e.g. petting zoo at Fall Fair). A new amphitheatre is proposed to be incorporated into the existing grassy slope to provide an improved viewing experience for events being held at the Lower Field. Otherwise, this area remains largely unchanged.



*Site Photo 11: Zone E - Curling Centre (background) and Kin Hut Field (foreground).*

### **Tsolum Way Trailhead**

The trails along the Tsolum River are another frequently used amenity at the Exhibition Grounds. However, improvements to the trailhead facility located at the terminus of Tsolum Way could significantly affect the user experience on typical days as well as during larger events.



*Site Photo 12: View east towards Tsolum Way trailhead (from Lower Field), with Rotary Bowl in background.*

Proposed upgrades for the Tsolum Way trailhead include:

- Covered shelter with picnic tables and bike racks.
- Pit toilet-style building (similar to BC Parks) to replace the existing porta-potty washroom. If a higher level of service is desired, it could be upgraded with utility services (power, water, sewer). An allowance for both basic and optional washroom upgrades is provided within the cost estimate in **Appendix F**.
- Trailhead map kiosk and wayfinding signage (for visitors arriving or departing from this location), in coordination with a site-wide wayfinding strategy.

### 5.3.6 ZONE F – UPPER RING AND CVTRS



Site Photo 13: Zone F - Upper Ring and CVTRS. Looking west towards Announcement Booth and Bike Repair Shop with CVTRS Barn on left.

Just north of the Curling Centre and Kin Hut Field lies Zone F – Upper Ring and CVTRS Barn (home to the Comox Valley Therapeutic Riding Society).

- In the immediate term, a consolidated and upgraded storage area is proposed near Headquarters Road, completed with gates and chain link fencing. The new storage area which would serve both CVEG and various community and user groups who currently struggle to find room to house materials needed for their weekly or annual events. It would also help to eliminate some of the many unsecured and unsightly outdoor storage areas that are scattered throughout the site.
- In the long term, this area is allocated for future development (for example to accommodate an agriculturally-focused events facility and associated drop-off and

parking area, as contemplated in previous master plans). A connection to the Curling Centre should be considered to enhance key site connections and potentially facilitate the joint hosting of events.

- The upgrade of the existing Vanier Drive driveway to a primary entrance at CVEG is anticipated to occur in preparation for or in conjunction with the future development area. This would connect to Main Spine Road and improve circulation flow through the site, particularly during larger events, while providing an alternate access to the Stonehenge parcel. An access control gate is provided at the internal entrance to Lower Field.
- Depending on the timing of the eventual development of this area as outlined above, a washroom along Main Spine Road could serve visitors in this area as well as Stonehenge.

### **5.3.7 ZONE G – STONEHENGE FARM EXPANSION**

*Zone G – Stonehenge Farm* includes the recently acquired lands directly north of the existing CVEG grounds. As a functional working site, Stonehenge is envisioned to be incrementally integrated into the larger site over time. Improvements and/or relocation of site circulation, infrastructure and amenities to support new uses and user groups can be completed as demand dictates and funds are available.

The majority of the Stonehenge site lies within the 200-year floodplain setback boundary and is therefore not suitable for the development of new, permanent buildings. It is possible that open air buildings (e.g. covered shelter or riding ring) may be appropriate in this location, however further geotechnical investigation is recommended as planning and design advance.

The proposed site improvements are summarized as follows:

- Upgrading the existing access off Dove Creek Place could help immediately alleviate pressures along Headquarters Road, which experiences greater volumes and presents more challenges as far as traffic flow and congestion. The eventual connection to Main Spine Road and the Vanier Drive entry would improve overall site mobility and accessibility, including the ability to use Stonehenge as overflow parking for events. The existing driveway access off Headquarters Road driveway (from former homestead) is proposed to be retained and upgraded for emergency access only.
- To facilitate redevelopment of Market Field (Zone D), the existing Teaching and Education garden plots (incl. garden beds, shed, tables and seating) near Headquarters Road are proposed to be expanded and relocated near the Dove Creek Place entry. An approximate footprint of 2,000 square meters has been allotted for this area, which would also include a water connection with the potential to support local irrigation. A new open air shelter to support community food processing or other agricultural needs is proposed nearby .
- The Upper Ring (Zone F) is proposed to be relocated to the north portion of Stonehenge, with associated gravel parking lot and horse trailer drop-off and staging area. A new covered riding ring is also proposed to allow all-weather use, host spectator events and complement the other equestrian facilities tailored to the specific needs of this user group.



- The remaining portion of Zone G, west of the Main Spine Road, would be left as-is, including the existing covered riding ring, horse paddocks and pasture. The existing residence and outbuildings can be phased out over time as CVEG/CVRD project priorities are implemented.



*Site Photo 14: Zone G - Stonehenge Farm Expansion. South-east view from tree-lined Dove Creek Place entrance (with existing covered riding ring on right).*

## 6.0 PRELIMINARY COST ESTIMATE

Based on the site and infrastructure improvements proposed through the Conceptual Master Plan presented in *Section 5.0* above, Urban Systems prepared a 'Class D' cost estimate with a total value of approximately **\$6.93 Million**, including soft costs, permitting and 30% design/construction contingency.

A zone-by-zone breakdown of the cost estimate is provided below, with a more detailed description, including off-site and optional items, provided within **Appendix F**. The Zoning Diagram, Conceptual Site Plan and Road Cross Section drawings included within **Appendix E** are also useful reference tool when reviewing the cost estimate.

This preliminary cost estimate is intended to help align CVEG's current and future needs with the CVRD's 5-year financial planning process and asset management inventory/strategy.

Roads and Multi-use Pathways	\$1,510,000
Zone A: Dove Creek Field	\$79,000
Zone B: Lower Field	\$10,000
Zone C: Rotary Bowl	\$171,000
Zone D: Market Field	\$818,000
Zone E: Curling Centre and Kin Hut Field	\$1,021,000
Zone F: Upper Ring and CVTS	\$168,000
Zone G: Stonehenge	\$818,000
<b>Subtotal</b>	<b>\$4,595,000</b>
Site Survey, Investigations, Permitting and Soft Costs	\$739,000
Contingency (30%)	\$1,600,000
<b>Total</b>	<b>\$ 6,934,000</b>

*\*Note that this cost estimate does not include costs associated with the construction of buildings or other costs associated with the 'future development area' within Zone F.*

## 7.0 IMPLEMENTATION PRIORITIES AND PHASING

The proposed site improvements and associated costs are envisioned to be implemented over the following 10 years, in alignment with the District’s five-year financial planning process. Together with the Regional District project team, the proposed improvements have been prioritized into three implementation phases, as shown in **Figure 11** below:

- **Short term** (1-2 years)
- **Medium term** (3-5 years)
- **Long term** (6-10 years)

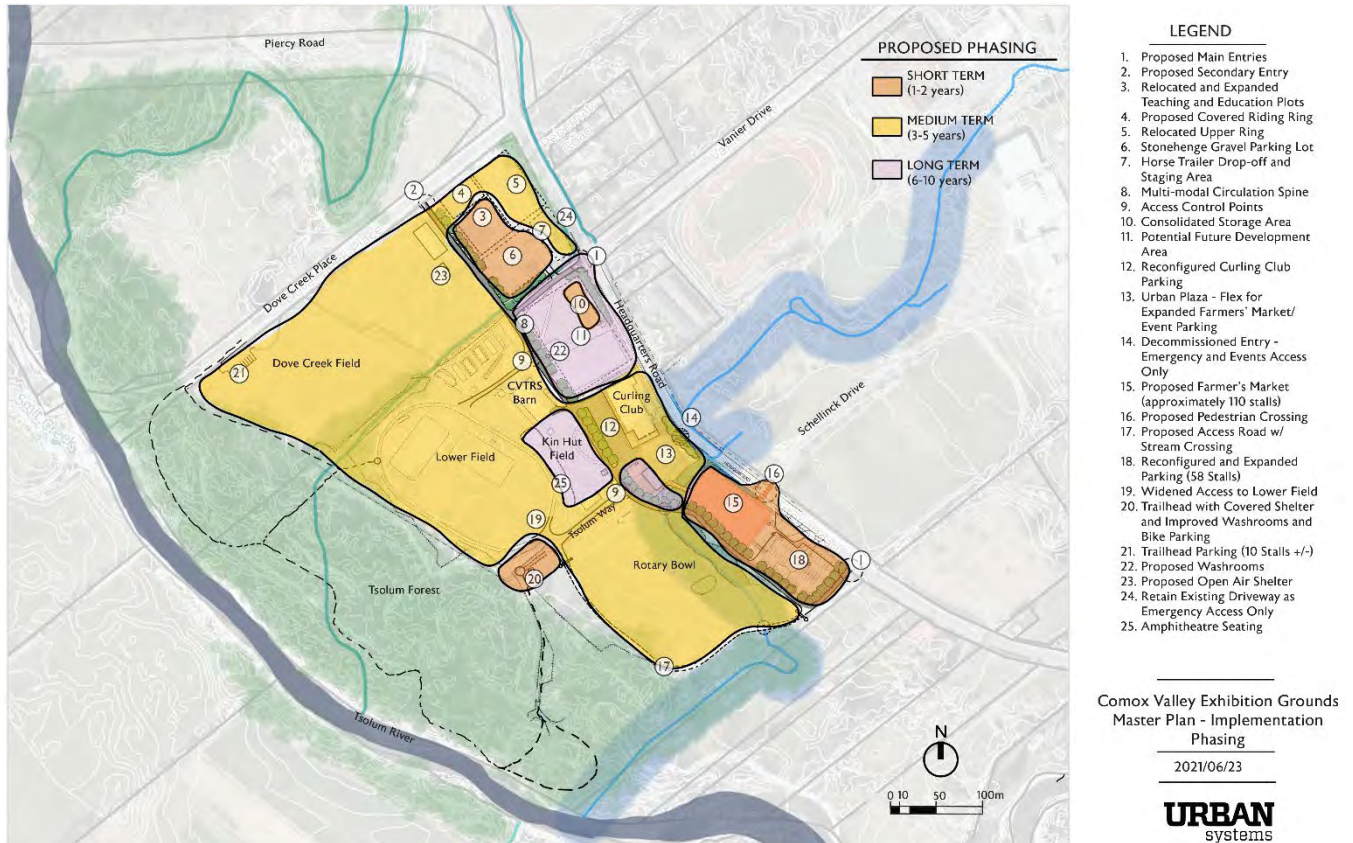


Figure 11: Proposed Implementation Phasing

While the Conceptual Master Plan provides a path forward for the long-term development of CVEG, it represents a snapshot in time and will undoubtedly evolve in the coming years. It is a tool that CVRD staff and leadership can use to facilitate ongoing discussions with various users, stakeholders and jurisdictions (e.g. City of Courtenay), and to identify potential priority projects to be funded and advanced through design and construction.

A brief description of the proposed short, medium and long-term priorities, along with associated cost summary, is provided below. Further detail for each proposed phase is also provided within **Appendix G**.

## 7.1 SHORT-TERM (1-2 YEARS)

Location	Proposed Improvements
Roads and Multi-use Pathways	<ul style="list-style-type: none"> <li>Relocation of Headquarters Road driveway access (Zone D) and construction of first phase of Main Spine Road (for access to new Market Field parking).</li> <li>Wayfinding signage and map kiosk(s), incl. on-site Tsolum trail system</li> </ul>
Zone D : Market Field	<ul style="list-style-type: none"> <li>Upgraded Farmers' Market vendor area, asphalt parking lot, pedestrian connections, improvements to electrical power and site drainage</li> </ul>
Zone E: Curling Centre and Kin Hut Field	<ul style="list-style-type: none"> <li>Tsolum Way trailhead improvements, incl. new washroom, covered picnic shelter and bike parking</li> </ul>
Zone F: Upper Ring and CVTRS Barn	<ul style="list-style-type: none"> <li>Consolidated storage area</li> </ul>
Zone G: Stonehenge	<ul style="list-style-type: none"> <li>Relocation of Teaching and Education Plots (from Zone D)</li> <li>New gravel parking lot</li> </ul>
Off-site Improvements	<ul style="list-style-type: none"> <li>Off-site crosswalk across Headquarters Road, connecting CVRD Sports Centre, Vanier Secondary and associated parking lots (Zone D).</li> </ul>

The estimated cost for the improvements identified to be initiated within the initial 1-2 year **short-term horizon** of the implementation plan (including allowances for soft costs and contingency), is approximately **\$2.64 Million**.

Roads and Multi-use Pathways	\$	297,000
Zone A: Dove Creek Field	\$	-
Zone B: Lower Field	\$	-
Zone C: Rotary Bowl	\$	-
Zone D: Market Field	\$	817,300
Zone E: Curling Centre and Kin Hut Field	\$	90,000
Zone F: Upper Ring and CVTRS	\$	58,000
Zone G: Stonehenge	\$	426,000
<b>Subtotal</b>	<b>\$</b>	<b>1,688,300</b>
Off-site Improvements	\$	50,000
Site Survey, Investigations, Permitting and Soft Costs	\$	291,000
Contingency (30%)	\$	609,000
<b>Total</b>	<b>\$</b>	<b>2,638,300</b>

## 7.2 MEDIUM-TERM (3-5 YEARS)

Location	Proposed Improvements
Roads and Multi-use Pathways	<ul style="list-style-type: none"> <li>• Main Spine Road connection between Market Field and Dove Creek Place, incl. gated access control points (Zones D, E, F, G).</li> <li>• Decommissioning and reconfiguration of existing Curling Centre driveway on Headquarters Road, for emergency and event access only (Zone E).</li> <li>• Widening and redevelopment of Tsolum Way secondary road (Zone E).</li> </ul>
Zone A: Dove Creek Field	<ul style="list-style-type: none"> <li>• New gravel trailhead parking lot at end of Dove Creek Place, incl. grading and drainage.</li> </ul>
Zone B: Lower Field	<ul style="list-style-type: none"> <li>• Widened intersection at Tsolum Way.</li> </ul>
Zone C: Rotary Bowl	<ul style="list-style-type: none"> <li>• New access lane, incl. gated control and stream crossing.</li> </ul>
Zone E: Curling Centre and Kin Hut Field	<ul style="list-style-type: none"> <li>• Creation of arrival plaza and drop-off zone at main entry to Curling Centre (CC)</li> <li>• Reconfiguration and redevelopment of 'east' parking lot into a flexible urban plaza for events.</li> <li>• Upgraded 'south' parking lot, incl. pedestrian connection between CC and CVTRS Barn.</li> </ul>
Zone G: Stonehenge	<ul style="list-style-type: none"> <li>• Relocated Upper Ring (from Zone F), incl. access and parking improvements for equestrian users.</li> <li>• New covered riding ring.</li> <li>• Open air shelter.</li> </ul>

The estimated cost for the **medium-term horizon** of the implementation plan, including allowances for soft costs and contingency, is approximately **\$3.60 Million**.

Roads and Multi-use Pathways	\$ 1,026,000
Zone A: Dove Creek Field	\$ 79,000
Zone B: Lower Field	\$ 10,000
Zone C: Rotary Bowl	\$ 171,000
Zone D: Market Field	\$ -
Zone E: Curling Centre and Kin Hut Field	\$ 581,000
Zone F: Upper Ring and CVTS	\$ 10,000
Zone G: Stonehenge	\$ 522,000
<b>Subtotal</b>	<b>\$ 2,399,000</b>
Site Survey, Investigations, Permitting and Soft Costs	\$ 370,000
Contingency (30%)	\$ 831,000
<b>Total</b>	<b>\$ 3,600,000</b>

### 7.3 LONG-TERM (6-10 YEARS)

Site improvements proposed over the long-term planning horizon are primarily intended to support the development of additional facilities and the expected increase in larger events and visitors, for example the future development area identified within the existing Upper Ring area in Zone F.

Location	Proposed Improvements
Roads and Multi-use Pathways	<ul style="list-style-type: none"> <li>Upgraded primary entrance driveway at the Vanier Drive intersection (Zone F), including connection to Main Spine Road.</li> </ul>
Zone E : Curling Centre and Kin Hut Field	<ul style="list-style-type: none"> <li>New central Events Plaza and Logistics Centre.</li> <li>Amphitheatre seating overlooking Lower Field.</li> </ul>
Zone F: Upper Ring and CVTRS Barn	<ul style="list-style-type: none"> <li>New central washroom building near CVTRS Barn, along future Main Spine Road.</li> </ul>

The estimated cost for the **long-term horizon** of the implementation plan, including allowances for soft costs and contingency, is approximately **\$950,000**.

Roads and Multi-use Pathways	\$	187,000
Zone A: Dove Creek Field	\$	-
Zone B: Lower Field	\$	-
Zone C: Rotary Bowl	\$	-
Zone D: Market Field	\$	-
Zone E: Curling Centre and Kin Hut Field	\$	340,000
Zone F: Upper Ring and CVTS	\$	100,000
Zone G: Stonehenge	\$	-
	<b>Subtotal</b>	<b>\$ 627,000</b>
Site Survey, Investigations, Permitting and Soft Costs	\$	104,000
Contingency (30%)	\$	219,000
	<b>Total</b>	<b>\$ 950,000</b>

## 7.4 ADDITIONAL RECOMMENDATIONS

Recommendations regarding additional foundational work to be completed in preparation for upcoming design and implementation works is provided below:

**1. Connect to Adjacent Recreational Facilities:**

Build on the initial work of the CVRD's ongoing Comox Valley Active Transportation Plan project by engaging in conversations with the City of Courtenay and School District 71 to develop for the development of an overall pedestrian mobility strategy between CVEG, the Comox Valley Sports Centre and Vanier Secondary School. This includes the proposed pedestrian crosswalk at the corner of Headquarters Road and Schellinck Drive, connecting directly to improved Market Field area.

**2. Map the Tsolum River Trails:**

Using GPS, capture the existing extent and alignment of the forest trails using to inform the development and implementation of the planned Wayfinding Signage and Map Kiosk project.

**3. Detailed Site Survey and Site Servicing Review for Stonehenge Property:**

To confirm the existing topography and servicing infrastructure in preparation for the anticipated design tasks proposed within the short (1-2 years) and medium-term (3-5 years) horizons.

**4. Parking Study and/or Transportation Demand Study:**

To confirm parking requirements as different facilities and amenities are enhanced or expanded and explore strategies to shift modal split of visitors arriving at CVEG.

The background of the page is a light gray map of a city street grid. A solid red rectangular box is positioned in the upper left quadrant, containing the title text. The text is white and bold. The word 'APPENDIX A' is underlined.

# APPENDIX A

## Mobility Review Memo



DATE: August 12, 2020  
TO: Michael Morrissey, Exhibition Grounds Manager, CVRD  
CC: Jennifer Zbinden, Senior Manager, Recreation Facilities, CVRD  
Phil Rinn, Project Leader, Urban Systems  
FROM: Beth Hurford, Transportation Planner, Urban Systems  
FILE: 3023.0013.01

**SUBJECT: Comox Valley Exhibition/Stonehenge Grounds: Mobility Review**

## 1.0 INTRODUCTION

The Comox Valley Exhibition Grounds (CVEG) is located within the City of Courtenay and is zoned as *A-2 Agricultural*, while the former Stonehenge Farm property is zoned *A-1 Agricultural*. Owned by the CVRD, both parcels fall within the Agricultural Land Reserve (ALR) and reflect the agricultural nature of the site. Historically, these destinations have been designed to accommodate vehicle traffic including larger vehicles such as buses and livestock trailers. However, the site has limited transit access and service levels, while also lacking high quality connections to multi-modal opportunities such as walking and cycling routes safe for all users (e.g. sidewalks, roadside pathways). While the site can accommodate vehicle access, parking pressures exist that may negatively impact popular community and regional events such as the weekly Farmers Market, especially with limited alternative options.

This memorandum outlines current, high-level mobility challenges and explores opportunities to address them. This is by no means a comprehensive review of the mobility opportunities and best practices for a site of this nature; instead, it is meant to inform future discussions related to overall site function, programming, and design. Mobility in this sense is defined as one's ability to:

- Reach the site and travel through it using various means;
- Navigate throughout the site easily, even with events running simultaneously;
- Recreate year-round (walking, trail use, etc.)
- Park various types of vehicles for numerous purposes; and
- Consider overall accessibility to ensure the site can accommodate all members of the community. Universal accessibility should be a primary consideration throughout any additional phases of work within the site as is explored at a high level below.

### 1.1 CONNECTIVITY: ROADWAY NETWORK

#### 1.1.1 Headquarters Road

The City of Courtenay's *2019 Transportation Master Plan* (TMP) identifies Headquarters Road, which borders the CVEG to the east, as an 'Arterial – Minor' and identifies it as part of the City's future cycling network. The TMP also clearly identifies Headquarters Road and Vanier Road as routes lacking sidewalk infrastructure. Roadway shoulders along this segment of the roadway

act as off-site parking during events, creating safety concerns for those driving past the site, those trying to access the site on foot, and those recreating along this route (cycling most commonly).

The *2014 Comox Valley Road Network Plan* also identifies Headquarters Road as a priority roadside greenway, defined as a greenway within the road right-of-way, separated where possible or with widened shoulders. Considering the importance of this pedestrian and cyclist connections to this key central community amenity, future site plans should support the implementation of these priorities.

Accessing CVEG from other off-site parking facilities such as the Comox Valley Sports Centre, or George P. Vanier Secondary School presents considerable safety concerns, as there are currently no marked pedestrian crossings across Headquarters Road. In particular, a safe connection to Vanier Secondary has been identified as important within the regional plan.

In addition, there are numerous CVEG vehicle access points along Headquarters Road. Southbound from Dove Creek Road they include:

- Stonehenge access (between Pebernat Road and Vanier Drive)
- Vanier Drive (west end) – CVEG North Gate
- Main entrance (at Curling Club)
- Schellinck Drive (west end)
- Loop access (south of Schellinck Drive) – Bulk Water Fill Station
- CVEG South Gate

These accesses are in varying condition and operate according to event requirements. The main access point at the Curling Club acts as the general site entrance for most users year-round. It is the only access with formalized and accessible parking facilities.

Parking along Headquarters Road is common during CVEG events and presents an ongoing safety challenge. This highlights the needs for increased transportation options to the site such as walking, cycling, or improved transit access.

### *1.1.2 Dove Creek Road*

Dove Creek Road is identified within the City of Courtenay's TMP as an 'Arterial- Major'. This is likely a result of a proposed future connection at the west end of the roadway. However, this segment of roadway, which borders the north end of the CVEG site, currently operates as a dead-end cul-de-sac street with no through traffic movements.

There are currently two vehicle access points along Dove Creek Road, one allowing access to Dove Creek Field, and the other accessing the Stonehenge property immediately east of the covered equestrian arena.

## 1.2 CONNECTIVITY: MULTI-MODAL

### 1.2.1 Existing Trail Use

Currently, the site offers recreational trails primarily along the Tsolum River. There is a network of walking pathways throughout that are well used by people walking, recreating along the riverside, and walking their dogs. In addition, there are several cross-country style equestrian jumps throughout this trail network likely used during three-day equestrian events. It is assumed that trail use is restricted during events using these equestrian facilities. However, these trails are also often used by various equestrian groups (not event specific).

Within the site's trails, there are a few, informal wayfinding signs; we understand that no formal trail map currently exists. However, the trails are well defined, in a condition similar to the remainder of the site, and the site is relatively small and easy to navigate. It is recommended that potential improvements to wayfinding signage, mapping and/or emergency/maintenance markers along the trails are considered/

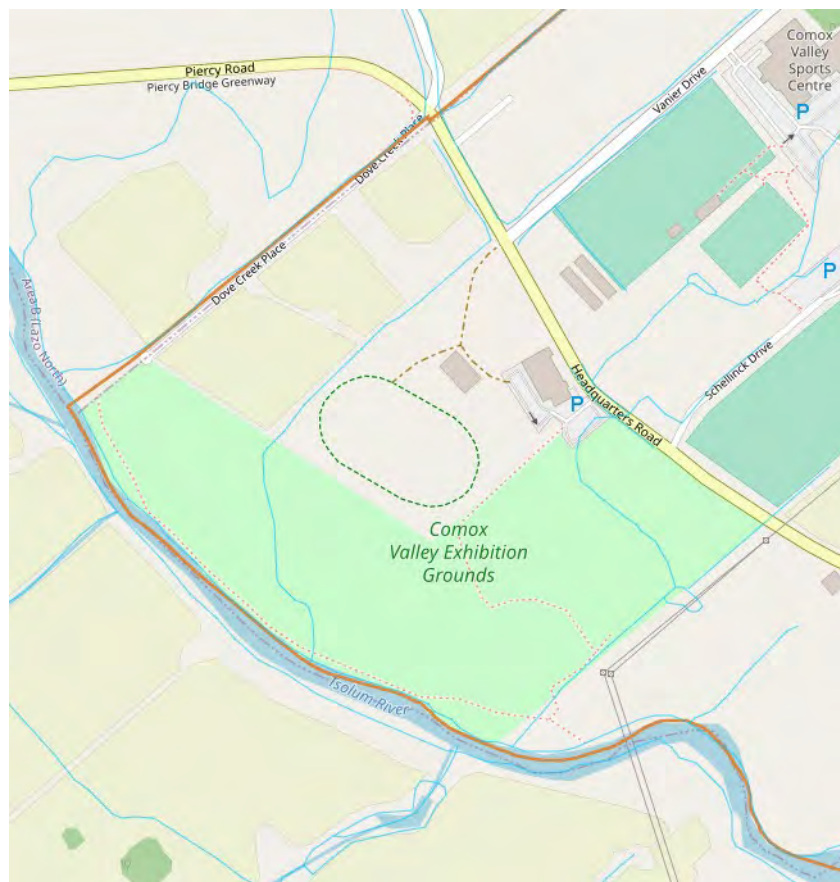


Figure 1: City of Courtenay's Interactive Trails Map (online) - CVEG main site trails shown

## 1.2.2 Future Trail Connections

The City of Courtenay's 2019 Parks and Recreation Master Plan (PRMP) identifies a continuous pathway along the Tsolum River that stretches south from Dove Creek Road to Ryan Road, which would connect to the internal CVEG trail network. This would allow non-vehicular access to the site along the riverway and would likely increase frequency of use. The PRMP also identifies:

- The current access from the main entrance parking to the existing on-site trail network
- Future trail segments which align Headquarters Road with future connections to the CVRD's One Spot Trail on the west side of Tsolum River.

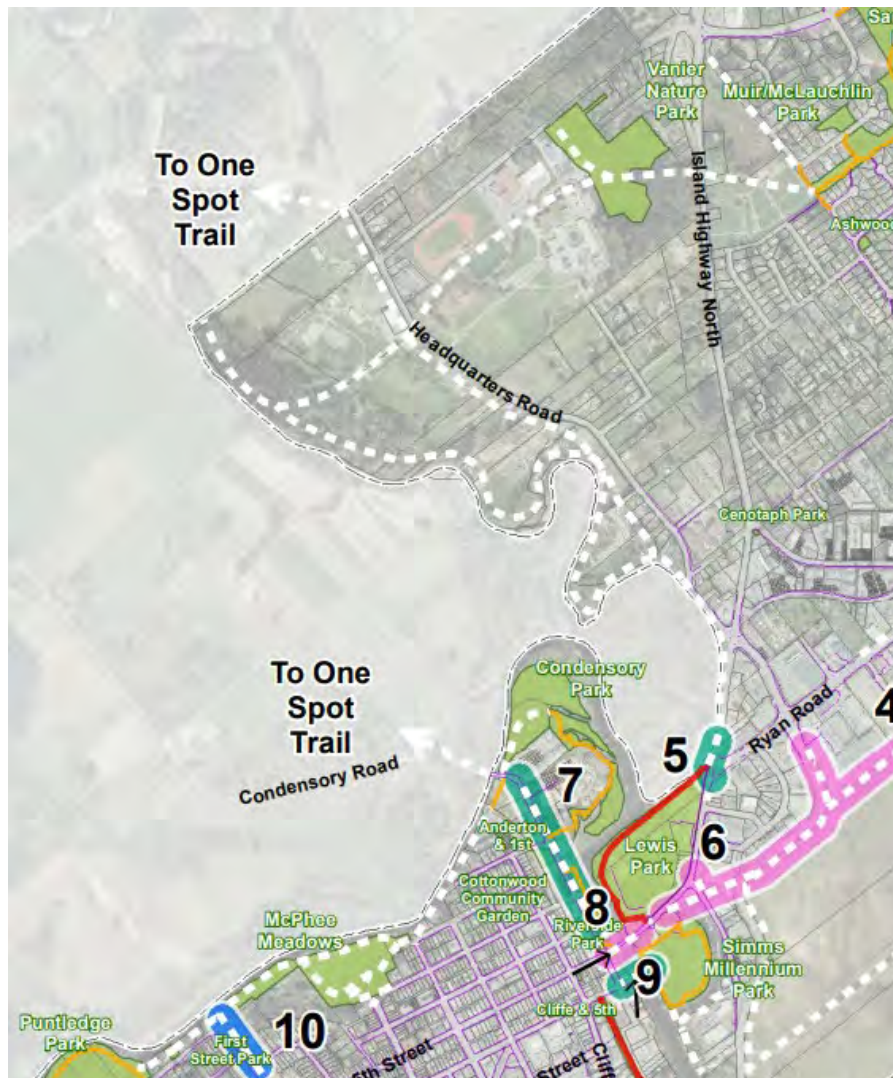


Figure 2: Proposed Trails- 2019 Parks and Recreation Master Plan, City of Courtenay

1.2.3 One Spot Trail

The One Spot Trail is a multi-use trail used by equestrians, people on bikes, and people walking. Once completed, this trail will be built completely within the agricultural land reserve. The CVRD has continued to build and maintain new sections of the One Spot Trail both north and south of the Tsolum River, with the long-term goal of a continuous trail running from Courtenay to Oyster River.

While One Spot Trail does not immediately connect to CVEG, ensuring future connectivity to the proposed trails from the City’s Parks and Recreation Master Plan, as well as the Regional trail network, would be beneficial to the site’s overall accessibility for all users and would align well with the site’s various activities throughout all four seasons.

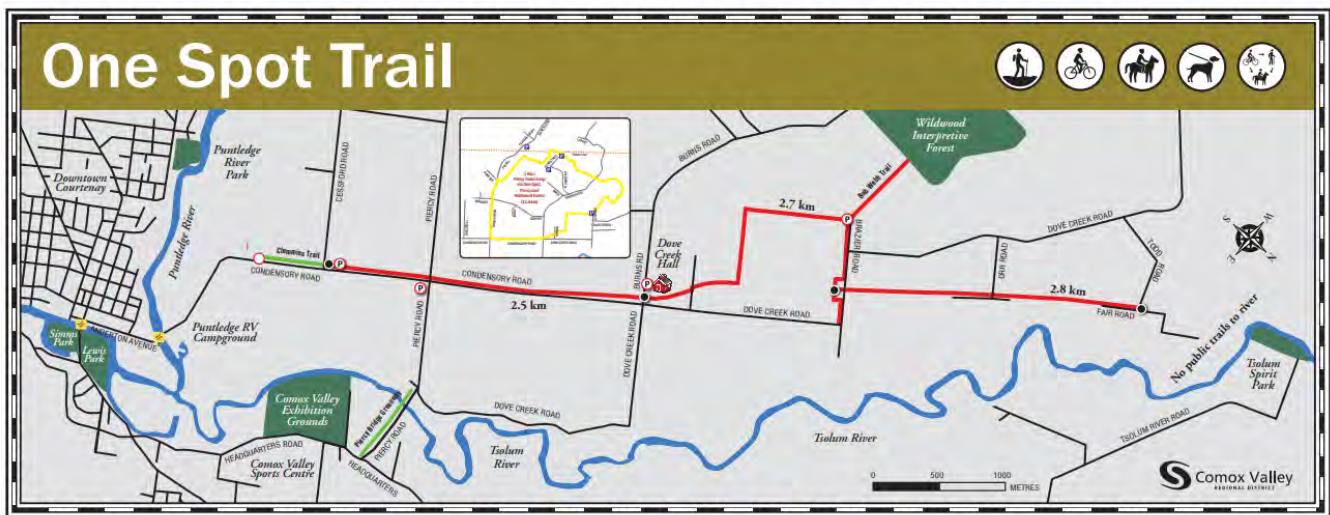


Figure 3: One Spot Trail Brochure (CVRD)

1.3 TRANSIT

Transit services do currently run past CVEG along Headquarters Road. The site is most easily accessible by private vehicle, as there are no dedicated transit stops in proximity to CVEG and few safe/convenient multi-modal connections as discussed above. BC Transit does service nearby facilities such as Comox Valley Sports Centre, however there are no transit stops between the Comox Valley SDA Church (across from Maple Pool Campground and RV Park), and the Sports Centre on Vanier Drive. Headquarters Road and Vanier Road have both been identified as local transit network routes within BC Transit’s Transit Futures Plan, indicating a commitment to long-term transit service.

Routes 5, 12, 13, and 99 (one route per day for school-based services) are relatively infrequent, however the potential addition of a stop to better serve CVEG along these existing routes would provide a safe, affordable and low-impact way to access the site. An on-site bus or shuttle loop for special events would also be beneficial to the site's overall multi-modal connectivity, accessibility, and site circulation.

As previously mentioned, the site offers a small network of trails and pathways along the Tsolum River. These trails provide high-quality recreational opportunities, however they do not facilitate on-site movement of people and animals during CVEG events. Site circulation is critically important for large scale events and must consider all event users including emergency access and other service vehicles alongside people walking, livestock, parking, etc. As mentioned previously, the site currently offers several site access points which are used differently for various events. Ensuring the safe and efficient movement of people and vehicles should be an important consideration for all operational-focused decisions.

#### 1.4 WALKING: ON-SITE

Currently people walking throughout the site during events primarily travel along the site's gravel roadways and through the central parking area. There is no continuous route that runs along the upper terrace and connects to the Rotary Bowl or other southern sites, which presents challenges for people navigating the site, while also impeding emergency response or service vehicle access during large events. These existing roadways therefore act as access routes for agricultural vehicles, maintenance vehicles, private vehicles, people walking (with children, dogs, etc.) and livestock.

Separating users whenever possible would improve the overall site circulation and safety for all users. This separation could create additional recreational facilities for people walking, or riding (horses or bikes) throughout the year and may also reduce parking demand along Headquarters Road if comfortable walking facilities are implemented. In addition, this would strengthen wayfinding efforts as considerations for different users would be better accommodated and conflicts between users minimized. Ensuring these walking pathways are well connected to parking (but do not travel directly through parking facilities) would also improve safety and the overall attractiveness of the site. In addition, events happening simultaneously may be better attended with an improved connection between them (i.e. equestrian event and weekly Farmers Market).

Ensuring these walkways can withstand heavy rainfalls and remain accessible year-round, even with equestrian use, combined with adequate width for multiple users or emergency access, should be considered in the design of the walkways.

## 1.5 PARKING AND ROAD CROSSINGS

Existing, year-round, parking facilities can be found at the site's main entrance off Headquarters Road, generally accompanying the curling rink. This parking area is paved and moderately lit, with three marked accessible parking stalls. As mentioned previously, parking often occurs along Headquarters Road during CVEG events, most frequently for the weekly Farmers Market. This is a result of lack of on-site parking, poor parking signage and directions (indicating on-site availability), and visitors generally being accustomed to road-side parking. This extensive road-side parking should be addressed in future site planning and programming exercises.

Relocation of site events (such as the Farmers Market) should consider parking availability for vendors and customers, with safety and accessibility being a top priority. Several other improvements related to better connecting the site to various means of transportation and amenities (e.g. washrooms) may also help alleviate demand for parking at the site, but should be considered a long-term solution.

Numerous access points have also been identified above, off both Dove Creek Road and Headquarters Road. Formalized parking does not currently accompany these access points, with event parking taking place in grassed areas or unused arena spaces. Due to the nature of these access areas (event staging, emergency, camping and recreational vehicles, livestock vehicles, attendee parking, etc.) it is recommended that parking facilities remain fluid without considerable space being dedicated to parked vehicles. Making use of open spaces as needed for event parking allows for flexibility in programming and site designs, while still accommodating various vehicle types and parking frequencies (e.g. high turnover vs. longer-term events).

Understanding the various needs of users such as recreational vehicle hook-ups and potential sanitary dump facilities, as well as horse trailer parking and adequate space for tying horses between events, etc., are critical considerations when establishing adequate parking levels for the site. These parking considerations should align with program planning.

Locations providing year-round access for recreational purposes such as in proximity to the Tsolum River pathways on-site would benefit from small formalized parking areas which may also be used for other, short term or accessible parking for different types of events. Parking has been established off Headquarters Road with a direct pedestrian connection to the pathways along the north end of the Rotary Bowl, however access off Dove Creek Road could be formalized with a small parking facility to provide access to trail users. In general, considering Dove Creek Field for special events and associated parking along Dove Creek Road would drastically improve the safety of attendees.

Maintaining the rural charm and character of the site may be challenging if substantially expanding on-site, paved or hardscaped parking facilities. Further exploring on-street parking opportunities and access along Dove Creek Road, combined with regular and well-advertised

overflow parking locations (e.g. Vanier School, Sports Centre), combined with safe event-specific pedestrian crossing locations on Headquarters Road (traffic control or permanent marked crossings) would also alleviate pressures along this segment of roadway without requiring substantial parking changes on-site. Paved parking facilities, if necessary, should be provided very cautiously for this purpose. It is also understood that the greatest parking demands occur throughout the drier months, which would allow for open grassed areas to be used for parking (and other uses as needed) with minimal damage to the fields themselves. For all events, clearly identified accessible parking should be readily available and prioritized in proximity to the main event venue or arena.

Should further development occur on site, green parking design elements (e.g. with focus on stormwater management and shade) could help maintain the site's character, environmental qualities, and improve accessibility over existing grassed parking areas.

In summary, there is a shortage of parking on-site for both regular and special events occurring at CVEG. Increasing parking supply should be done in parallel with future program planning to ensure increased supply does not detract from the site's agricultural nature. In addition, parking should be designed in such a way that it does not impede the circulation of people throughout the site, yet can be accessed from potential pathways connecting various venues. Improving multi-modal connections to the site over the long term should be a priority to help alleviate parking pressures and further highlight the recreational qualities and offerings of the property.

## 1.6 EMERGENCY ACCESS

Emergency access to and throughout the site, combined with emergency location identification methods, should be considered in all future site design. While 'back-of-house' access points may shift depending on event needs, a constant central emergency access point should be identified. It is assumed that the main entrance currently acts as the primary emergency access.

In addition to initial site access, emergency circulation around the site is critical to response times. As mentioned above, a continuous pathway to connect the site from north to south along the upper terrace could expedite emergency access while events are underway. In addition, emergency location markers could improve response time throughout the site, including throughout the Tsolum River trail network. These would allow someone requesting emergency response to inform personnel of their exact location.

## 1.7 ACCESSIBILITY

Currently the site offers little in the way of universal accessibility. This is a result of the agricultural nature and the importance of soft footing and natural landscape of the site. However, the site would benefit from accessibility improvements such as increased accessible parking at various entrances to ensure proximity to various venues, an on-site shuttle or bus loop to accommodate HandyDart or other private accessible vehicle services, a continuous pathway to support



wheelchairs and walkers, or directional support for those with visual impairments. Hard, smooth surfaces are recommended, however these will need to align with the site's character and user group needs (e.g. equestrians typically prefer soft surfaces). As mentioned throughout this memorandum, a wide, continuous gravel pathway is recommended for site circulation, however accessibility concerns should be considered when establishing design criteria and wayfinding design, as described below.

## 1.8 WAYFINDING

Site wayfinding serves an important function and could help address several site challenges, particularly when the site is hosting several events simultaneously. Currently, there is little signage on-site to identify buildings or specific areas with the Exhibition Grounds, or to guide users to other facilities such as trails or washrooms. In addition, having flexible wayfinding options and designs can facilitate event operations and set-up, reduce waste (many events may only use signs once), and may emphasize the site's character depending on the design.

Wayfinding is not just about signs directions but more of a two-stage process during which attendees' questions may be answered - such as where to park, how to find appropriate venues (permanent and event specific such as stages), and provide emergency response location information as discussed above. A clear, organized set of sign elements strategically arranged to guide venue users will result in a good wayfinding system and an easily navigable exhibition facility. There are many types and styles of wayfinding to consider and their placement requires substantial consideration for programming and venue user needs prior to implementation. The following types of wayfinding may be beneficial for CVEG:

- Site orientation maps
- Directional signage  
(smaller, pedestrian scale and larger for vehicle access, directions, parking availability)
- Symbol-based accessible signage (along accessible route, if developed)
- Venue identification signage (i.e. Rotary Bowl, CVTRS Barn, etc.)
- Facilities signage  
(i.e. washrooms – both permanent and event specific, utility/maintenance information)
- CVEG identity signage such as historic or educational information
- Access and “gateway” signage at site entrances  
(permanent identification and event specific information)

Any future wayfinding signs should be legible, readable, and understandable to as wide of a range of users as possible, including people with various physical disabilities. This can be achieved in part by keeping signs simple and intuitive, by using non-text cues and by ensuring signs use high contrast graphics to assist persons with low vision, and that signs are located where persons in wheelchairs can easily read them from a distance. In summary, wayfinding should be considered throughout future design processes and event planning considerations.

# URBAN SYSTEMS MEMORANDUM

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DATE: August 12, 2020

PAGE: 10 of 10

SUBJECT: Comox Valley Exhibition/Stonehenge Grounds: Mobility Review

We trust this memo is informative and will act as a foundational document in preparing the CVEx Landscape Plan and beyond. Please contact me directly if you have any questions or comments regarding the mobility/transportation scope of the project.

Sincerely,

**URBAN SYSTEMS LTD.**

Beth Hurford,  
Community Transportation Consultant

/bh

[file:///usl.urban-systems.com/projects/Projects\\_VIC/3023/0013/01/R-Reports-Studies-Documents/RI-Reports/2020-08-12\\_CVEx\\_MobilityMemo\\_UrbanSystems.docx](file:///usl.urban-systems.com/projects/Projects_VIC/3023/0013/01/R-Reports-Studies-Documents/RI-Reports/2020-08-12_CVEx_MobilityMemo_UrbanSystems.docx)

Last updated by osieffert on May 18, 2021 at 11:41 AM  
 Last exported by osieffert on May 18, 2021 at 11:41 AM  
 Last printed by osieffert on September 25, 2017 at 11:46 AM



**Comox Valley Regional District**  
**Comox Valley Exhibition Grounds:**  
**Landscape Plan**

**Transportation & Site Access**

**Legend**

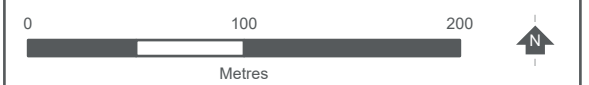
- Subject Site
- Parcels
- Streams
- Roads
- Trails

**Site Access**

- ↔ Primary
- ↔ Secondary

**Notes:**

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



**Coordinate System:** NAD 1983 UTM Zone 10N  
**Scale:** 1:3,500  
 (When plotted at 11"x17")

**Data Sources:**  
 - Data retrieved from the Comox Valley Regional District, City of Courtenay, and Data BC.

Project #: 3023.0013.01  
 Author: OS  
 Checked: PR / BH  
 Status: **DRAFT**  
 Revision: A  
 Date: 2021 / 5 / 18

**URBAN**  
 S Y S T E M S

**FIGURE 1.1**

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The background of the page is a light gray map of a city street grid. A solid red rectangular box is positioned in the upper left quadrant, containing the text 'APPENDIX B' and 'Site Servicing Memo'.

# **APPENDIX B**

## **Site Servicing Memo**

Date: August 14, 2020  
To: Mike Morrissey, Exhibition Grounds Manager, CVRD  
cc: Jennifer Zbinden, Senior Manager, Recreation Facilities, CVRD  
Phil Rinn, Project Leader, Urban Systems  
From: Eric Sears, P.Eng  
File: 3023.0013.01  
**Subject: Comox Valley Exhibition / Stonehenge Grounds:  
Site Servicing Report**

## 1.0 INTRODUCTION

Urban Systems is working with the Comox Valley Regional District (CVRD) on a new landscape plan for an expanded Comox Valley Exhibition/ Stonehenge Grounds (CVEx) property, located within the City of Courtenay. CVEx includes indoor and outdoor barns, riding rings, arenas, and a curling centre. Herein referred to as the “project area,” CVEx consists of 40 acres, bounded by Dove Creek Place, Headquarters Road, and the Tsolum River.

This memo is intended to provide a high-level overview of the existing site services that currently exist on-site to provide the CVRD and the project team with an understanding of the current state of the infrastructure of both the private services within the site and the municipal services that are available to the site. The expectation of the infrastructure review is that it will aid the development plans prepared as part of future phases of the project. Information for this memo has been summarized based on the following information that was made available for the site:

- Record information for onsite private water and electrical utilities constructed in 2012.
- City of Courtenay public data information on existing City utilities in the area; and
- Information gathered during the site visit conducted on July 13, 2020.

For the purposes of this memo, the site is divided into the existing CVEx property and a second parcel that is known as the Stonehenge Farm site. While both sites are discussed in this memo, there is little information known about the on-site utilities for the Stonehenge site. Moving forward into concept design, it may be beneficial to undertake a more detailed study and review of the on-site infrastructure for the Stonehenge site to understand opportunities, constraints or restrictions based on the available infrastructure such as water supply and sewage disposal availability. A site survey documenting existing buildings, infrastructure, utilities and significant site features such as specimen trees is also recommended to assist with current and future

Date: August 14, 2020  
File: 3023.0013.01

planning and design initiatives and implementation. We would be pleased to discuss this with you in further detail.

A schematic of the existing servicing and utility systems is included as Figure 1.1. The 2012 record drawings are also attached to this memo for reference.

## **2.0 SITE DRAINAGE**

Currently, there is no existing stormwater infrastructure on-site and the CVRD has reported that the site is prone to flooding (up to 3 feet deep). Drainage ditches line the northern and eastern project area boundaries along Dove Creek Place and Headquarters Road. Some of the numerous driveway accesses along Headquarters Road contain culverts, but others do not and are prone to pooling and stagnant water.

The site generally slopes to the southwest towards Tsolum River and there are a number of drainage connections between Headquarters Road and the river. The major watercourse which bisects the site is named Vanier Creek. Based on the topography and the presence of waterways, it can be expected that drainage from the site is directed into Vanier Creek and other unnamed watercourses, which eventually discharge into the Tsolum River. Drainage from the various parking areas appears to drain to localized ditches and channels and into the various waterways.

It should be noted that the project area falls largely within the 200-year floodplain of the Tsolum River. According to CVRD staff, areas of the site, and specifically the Rotary Bowl, are prone to flooding (up to 2.5 feet deep) and trails along the Tsolum River occasionally wash out due to flooding. Flooding and wash out are especially evident during high tide events during the rainy season. The CVRD has stated that most of the project area drains well after rain, except for the Stonehenge Farm site as it sometimes contains pools of water up to 3 feet deep in the fall.

## **3.0 SANITARY SERVICING**

There are currently three sanitary sewer service connections that connect the site to the City of Courtenay sanitary sewer main running along Headquarters Road. One service is located near the community garden, a second is located across from the Vanier Secondary School entrance, and the third is located at the entrance to the curling rink. Beyond the location of the services, little is known about the size, depth of condition of the sewer services to the site or any infrastructure on the site. These services were not included in detailed drawings received for the site. A request for service cards for the site was made to the City of Courtenay; however no additional information was available.

Date: August 14, 2020  
File: 3023.0013.01

For the Stonehenge property, it does not appear there is a sewer connection to the City of Courtenay System. It is expected that the site would be utilizing a septic system and disposal field on the property. The location and future use ability of this field would need to be confirmed via a detailed review of the site.

#### **4.0 WATER SERVICING**

Water servicing to the site is provided by the existing City of Courtenay 150 mm watermain that runs along Headquarters Road. This main provides water service to the site and also provides a level of fire protection via existing City hydrants.

The main water connection to the site is location near the CVEx and the Stonehenge property line (across from Vanier Drive), which was installed in 2012. The main service connection is shown to be a 150 mm service, complete with a backflow preventer and allowance for the installation of a water meter. It is unknown if a water meter has been installed for the site.

The main service provides water to a significant onsite water system network. Much of the network was installed in 2012 and consists of a number of fire hydrants, yard hydrants, irrigation lines, water services and blow-offs. Water is fed through a network of 150 mm and 50 mm mains to almost all areas of the main site. There is a secondary water connection from the City system shown to the east of the community garden. This service pre-dates the improvements that were undertaken in 2012 and it is unknown if this service is still active or what it may service (in addition to the community garden in which a few irrigation boxes were observed during our July 13 site visit.

As it is located within a distinct parcel, there is a separate 50 mm water service and meter off Headquarters Road to service the existing Curling Centre building. There is also a bulk water fill station located off Headquarters Road near the Farmers Market Field. Based on the information provided, it is understood that this fill station is connected directly to the City system, however this should be confirmed.

Little is known about the water servicing to the Stonehenge Farm site. Records show a water service off Headquarters road to the site that is presumed to run to the existing home on the site.

#### **5.0 SITE POWER**

A major power upgrade was installed on the site in 2012 in conjunction with the water system upgrades. There is an overhead power connection to the BC Hydro system located near the curling rink and this service is connected to the main electrical building located south of the

MEMORANDUM



Date: August 14, 2020

File: 3023.0013.01

curling rink. From the electrical building, underground power has been installed throughout the site to power lighting systems, various buildings, and other power connections located at key areas of the site. The location of the underground services is shown on record drawings received for the project, which are attached to this memo.

Power to the Stonehenge site is provided by a single overhead connection located off Headquarters Road at the south end of the property. On-site electrical was not able to be confirmed at this time.

## 6.0 CLOSING

We trust this memo is informative and will act as a foundational document in the CVEx Landscape Plan regarding existing utilities. We expect that some information presented within this memo may need to be confirmed as the project moves forward. Please contact me directly if you have any questions or comments regarding the site servicing scope of the project.

**URBAN SYSTEMS LTD.**

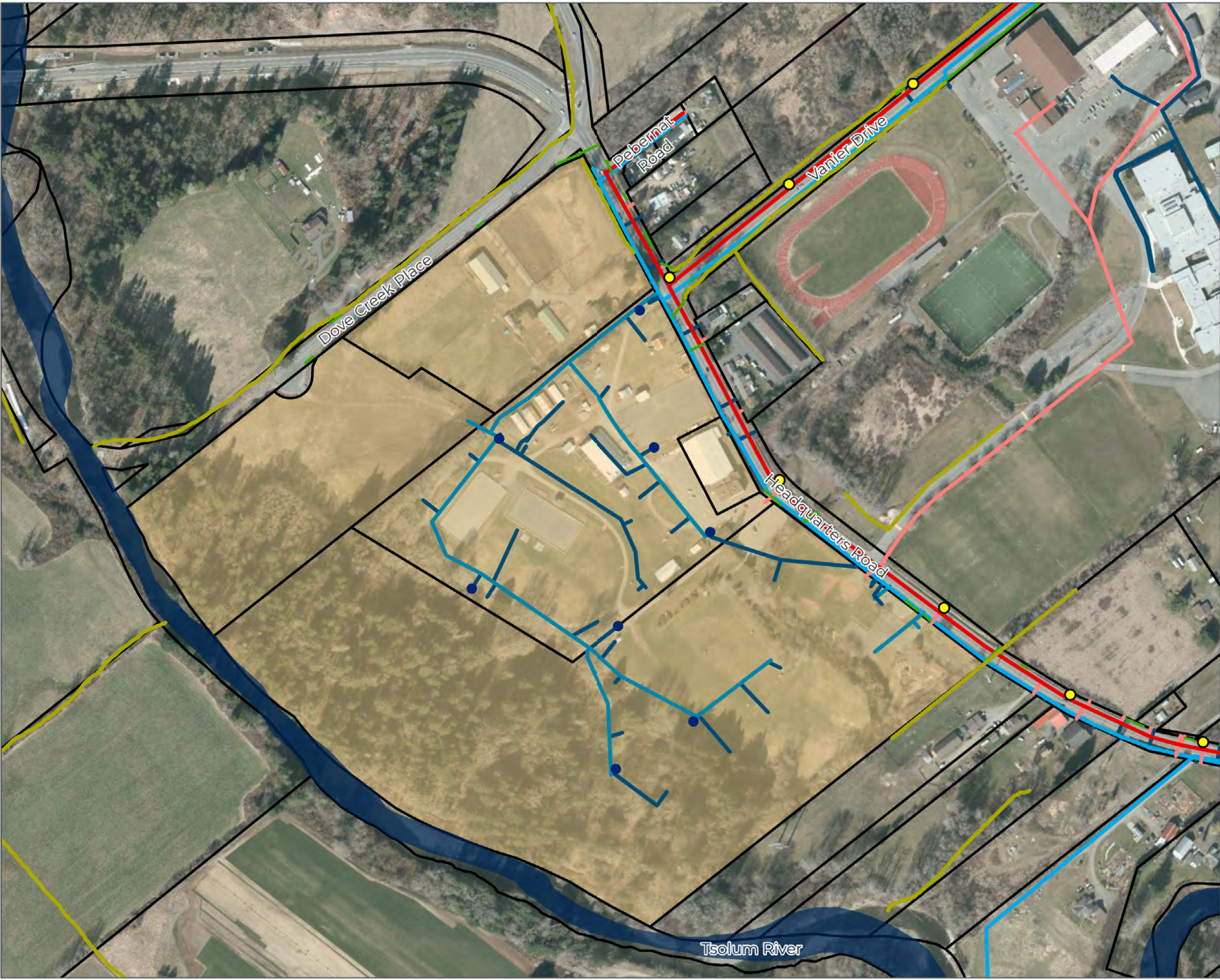
A handwritten signature in blue ink, appearing to read 'E.S.', with a horizontal line extending to the left.

**Eric Sears, P.Eng**

Projects\_VIC/3023/0013/01/R-Reports-Studies-Documents/R1-Reports/2020-08-06-MEM-CVRD%20Exhibition%20Grounds-%20Site%20Servicing%20Report.docx



Last updated by oesleffert on May 18, 2021 at 11:08 AM  
 Last exported by oesleffert on May 18, 2021 at 11:07 AM  
 Last printed by oesleffert on September 25, 2017 at 11:46 AM



**Comox Valley Regional District**  
**Comox Valley Exhibition Grounds:**  
**Landscape Plan**

**Existing Site Servicing**

**Legend**

- Subject Site
- Parcels
- Water**
- Lateral Lines
- Water Mains
- Hydrants
- Sanitary**
- Lateral Lines
- Gravity Mains
- Stormwater**
- Ditches
- Culverts
- Streetlights

**Notes:**

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



**Coordinate System:** NAD 1983 UTM Zone 10N  
**Scale:** 1:3,500  
 (When plotted at 11"x17")

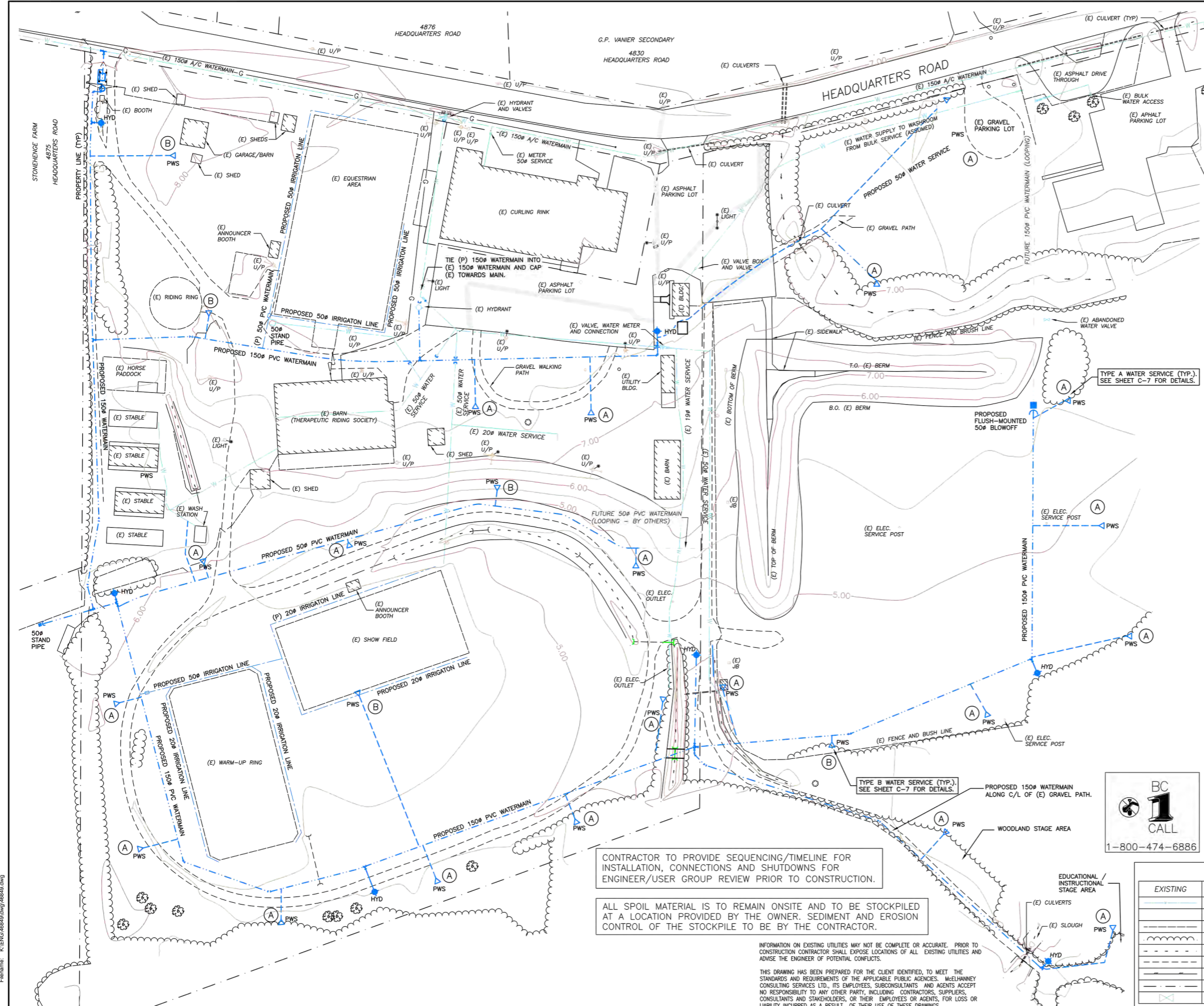
**Data Sources:**  
 - Data retrieved from the Comox Valley Regional District, City of Courtenay, and Data BC.

Project #:	3023.0013.01
Author:	OS
Checked:	PR / ES
Status:	<b>DRAFT</b>
Revision:	A
Date:	2021 / 5 / 18

**URBAN**  
 SYSTEMS

**FIGURE 1.1**

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CONSTRUCTION

THE UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON FIELD SURVEYS AND VARIOUS DRAWINGS, "AS-BUILT" AND OTHERWISE, AND NO LIABILITY IS ASSUMED BY McELHANNAY OR THE OWNER FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION PRESENTED.

CONTRACTOR TO ARRANGE A PRECONSTRUCTION MEETING AND NOTIFY THE CVRD/ENGINEER ONE (1) WEEK PRIOR TO BEGINNING WORK. CONTRACTOR TO ARRANGE FOR ENGINEER REVIEW OF ALL KEY UNDERGROUND ASPECTS OF THE WORK PRIOR TO BACKFILL. ALL REQUESTS FOR FIELD CHANGES TO BE MADE IN WRITING TO THE ENGINEER FOR CONSIDERATION.

PERMITS: A PERMIT IS REQUIRED FROM THE CITY OF COURTENAY ENGINEERING DIVISION TO CONSTRUCT WORKS WITHIN A CITY ROAD ALLOWANCE, CITY STATUTORY RIGHT-OF-WAY AND/OR CITY PROPERTY.

A PERMIT IS REQUIRED FROM TERASEN GAS WHEN THE SITE WORK OR ACTIVITY INVOLVES: A) WORKING WITHIN TWO (2) METRES OR CROSSING OVER/UNDER AN INTERMEDIATE PRESSURE (IP) GAS PIPELINE (701-2070 kPa / 101.6 - 300 psi) B) CROSSING A TRANSMISSION PRESSURE (TP) GAS PIPELINE (ABOVE 2070 kPa / 300 psi) OR WORKING WITHIN A RIGHT-OF-WAY.

MINIMUM OF 2 WEEKS NOTICE REQUIRED TO CITY OF COURTENAY PUBLIC WORKS PRIOR TO CONNECTIONS TO EXISTING INFRASTRUCTURE, INCLUDING: A) WATERMANS B) SANITARY SEWER C) STORM SEWER D) STREETLIGHT SYSTEM E) ACCESS VIA CITY LOCKS FOR: - STREETLIGHT DISTRIBUTION BASE - SANITARY LIFT STATION, KIOSK, GENERATOR (AS APPLICABLE) F) OTHER

CONTRACTOR TO ARRANGE WORKS IN VICINITY OF EX. UTILITY POLES AND GUY WIRES WITH BC HYDRO. UPON AWARD OF CONTRACT, THE CONTRACTOR MUST CONTACT B.C. HYDRO, 897-7400, AND SUBMIT A PROPOSED CONSTRUCTION SCHEDULE.

DATUM

ELEVATIONS ARE GEODETIC AND BASED ON MONUMENTS 87HAW042 (DESTROYED) AND 77C500 (DESTROYED). BENCHMARKS SET: ARROWHEAD ON CITY OF COURTENAY FIRE HYDRANT D4078 (ON HEADQUARTERS ROAD ACROSS FROM G.P. VANIER SECONDARY) ELEVATION = 8.30

1. THE CONTRACTOR SHALL MAKE HIMSELF AWARE OF ALL APPLICABLE AWWA STANDARDS AND PROCEDURES FOR DISINFECTION OF WATERWORKS. THESE PROCEDURES WILL BE STRICTLY ENFORCED. THE CONTRACTOR SHALL HAVE A REFERENCE COPY OF AWWA PROCEDURES AVAILABLE ON SITE AT ALL TIMES.

2. PRIOR TO CONNECTION OF NEW WATERWORKS COMPONENTS TO EXISTING INFRASTRUCTURE, A SITE MEETING ATTENDED BY THE CONTRACTOR, THE MUNICIPALITY AND THE ENGINEER SHALL BE HELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THIS MEETING. TOPICS OF DISCUSSION TO INCLUDE: - TIMING OF WATER SHUT DOWNS - NOTICE OF DISRUPTION OF SERVICE - CONTRACTOR'S WORK PLAN - ROLE OF CITY FORCES - ANY OTHER RELEVANT ITEMS

3. THE CONTRACTOR SHALL MAKE HIMSELF AWARE OF ALL ASBESTOS CONCRETE SAFE WORK PROCEDURES AS ESTABLISHED BY THE WORKER'S COMPENSATION BOARD. THE CONTRACTOR SHALL PROVIDE, PRIOR TO CONSTRUCTION, A WRITTEN WORK PLAN, DETAILING PROPOSED WORK PROCEDURES FOR OFFSITE OR INTRENCH DISPOSAL OF ASBESTOS CONCRETE PIPE, AS DIRECTED ON THESE DRAWINGS AND/OR SPECIFICATIONS.

- RESTORATION: 1. PAVEMENT AREAS: GRIND EDGE OF TRENCH MIN. 500mm BACK OF TRENCH WALL AND 300mm FROM ANY BROKEN OR DAMAGED EDGES. BACKFILL WITH 230mm PIT-RUN GRAVEL COMPACTED TO 95% MODIFIED PROCTOR DENSITY. TOP WITH 75mm 20mm CRUSHED GRAVEL COMPACTED TO 95% MODIFIED PROCTOR DENSITY AND 50mm OF HOT-MIX ASPHALT. 2. GRAVEL ACCESS AREAS: BACKFILL WITH 230mm PIT-RUN GRAVEL COMPACTED TO 95% MODIFIED PROCTOR DENSITY. TOP WITH 150mm 20mm CRUSHED GRAVEL COMPACTED TO 95% MODIFIED PROCTOR. 3. BOULEVARD AREAS: RESTORE ALL TOPSOIL, TURF, LANDSCAPING, RETAINING WALLS, DRIVEWAYS, ETC. TO A CONDITION EQUAL TO OR BETTER THAN EXISTED PRIOR TO CONSTRUCTION. DRIVEWAYS TO BE SAWCUT AND RESTORED OVER A MINIMUM CUT WIDTH OF 1.2m, WITH GRAVEL BASE AND SURFACING MATERIAL TO MATCH EXISTING.

MATERIALS AND CONSTRUCTION SHALL BE TO CURRENT CITY OF COURTENAY SPECIFICATIONS UNLESS OTHERWISE NOTED ON THESE PLANS. ALL CONNECTIONS TO EXISTING MUNICIPAL SERVICES SHALL BE BY CITY FORCES UNLESS OTHERWISE ADVISED.

WATER:

- 1. CONTRACTOR TO INSTALL METER/CHAMBER AND APPURTENANCES UNDER SUPERVISION OF CITY'S ENGINEERING DEPT. 2. ALL WATER FITTINGS TO BE RESTRAINED AS PER CITY OF COURTENAY & MANUFACTURER'S STANDARDS. 3. ALL WATER VALVE (150# OR 100#) BOXES TO BE PLACED IN 0.5m SQUARE x 100mm THICK (MIN.) CONCRETE PADS. 4. WATER WORKS TO BE CONSTRUCTED, TESTED, DISINFECTED, AND FLUSHED PRIOR TO CONNECTION TO CITY SYSTEM. CO-ORDINATE WITH CITY FOR FINAL TIE-IN. 5. BLOW-OFFS, VALVES AND FITTINGS RENDERED SURPLUS THROUGH CONSTRUCTION SHALL BE RETURNED TO THE CVRD. 6. SUBMISSION OF BACTERIAL TEST, BY ENGINEER, INDICATING NO CONTAMINATION BY FECAL OR TOTAL COLIFORM IS REQUIRED PRIOR TO INTERCONNECTION TO THE EXISTING CITY OF COURTENAY WATER SYSTEM. 7. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL PROVIDE A PROPOSED METHODOLOGY FOR WATERMAIN CONSTRUCTION, TO THE PROJECT ENGINEER FOR REVIEW. 8. ALL IRRIGATION WORKS TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR UNDER THE SUPERVISION OF CVRD STAFF. 9. ALL WATER SERVICES TO BE ABANDONED ARE TO BE SECURELY CAPPED IF CROSSED/CUT.

THE LOCATION(S) OF UTILITY SERVICES SHOWN ARE APPROXIMATE ONLY. CONTRACTOR TO CONFIRM LOCATION OF SERVICES PRIOR TO CONSTRUCTION. THE CVRD WILL ASSIST WITH FIELD LOCATION OF EXISTING SERVICES AS NECESSARY.

TRAFFIC / PUBLIC SAFETY

CONTRACTOR TO VERIFY THAT SITE SAFETY FOR VEHICLE OPERATORS AND PEDESTRIANS (INCLUDING HORSES) IS MAINTAINED FROM THE END OF EACH WORK DAY, THROUGH THE NIGHT, AND UNTIL THE START OF NEXT WORK DAY BY USING FLASHING BEACONS, BARRICADES, SIGNAGE, DELINEATORS ETC.

THE CONTRACTOR WILL ASSUME "PRIME CONTRACTOR" STATUS AND WILL BE RESPONSIBLE FOR ALL MULTIPLE WORK PLACE SAFETY RESPONSIBILITIES FOR WORKERS IN ACCORDANCE WITH WCB-OHS REGULATIONS. WRITTEN CONFIRMATION TO BE PROVIDED TO THE PROJECT ENGINEER PRIOR TO MOBILIZATION.

CONTRACTOR TO NOTIFY ALL EMERGENCY SERVICE AGENCIES OF THE SUBSEQUENT WORK ZONE AREA, SPEED REDUCTIONS, OR DETOURS WHICH MAY EFFECT TRAFFIC FLOW ON A DAILY BASIS.

ENVIRONMENTAL PROTECTION

THE CONTRACTOR SHALL OBTAIN COPIES OF, AND SHALL FOLLOW THE PROCEDURES/GUIDELINES CONTAINED IN THE FEDERAL/PROVINCIAL DOCUMENT "LAND DEVELOPMENT GUIDELINES FOR THE PROTECTION OF AQUATIC HABITAT" (SEPT. '93), AND IN THE MINISTRY OF ENVIRONMENT'S "DEVELOPMENT WITH CARE" (MARCH '06).

CONTRACTOR TO PROVIDE SEQUENCING/TIMELINE FOR INSTALLATION, CONNECTIONS AND SHUTDOWNS FOR ENGINEER/USER GROUP REVIEW PRIOR TO CONSTRUCTION.

ALL SPOIL MATERIAL IS TO REMAIN ONSITE AND TO BE STOCKPILED AT A LOCATION PROVIDED BY THE OWNER. SEDIMENT AND EROSION CONTROL OF THE STOCKPILE TO BE BY THE CONTRACTOR.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. PRIOR TO CONSTRUCTION CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING UTILITIES AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

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LEGEND table with columns for EXISTING, DESCRIPTION, PROPOSED. Includes symbols for watermain, irrigation main, fence, tree line, centerline of open ditch, edge of gravel, edge of road, approximate property line, water valve, hydrant assembly, blow-off, manhole, cleanout, catch basin, utility pole, pole anchor, streetlight, and proposed water service (PWS).

Filename: K:\ENVO\46849\dwg\46849.dwg  
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Designed: CDE Checked: BH Date: JUNE 30/11  
Drawn: CDE Surveyed: SM  
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0 10 20 30 40 50 60m  
(ALL DIMENSIONS ARE IN METRES)

COMOX VALLEY REGIONAL DISTRICT  
OVERALL SITE SERVICING PLAN  
CVRD EXHIBITION GROUNDS REVITALIZATION  
CVRD EXHIBITION GROUNDS COURTENAY, B.C.  
Client Project No. -  
Client Drawing No. -  
MCSL Project No. 2211-46849-0  
Drawing No. C-1  
Sheet 1 of 9  
Revision 1  
Destroy all prints bearing previous number

The background of the page is a light gray map of a city street grid. A solid red rectangular box is positioned in the upper left quadrant, containing the title text. The text is white and bold. The word 'APPENDIX C' is underlined.

# APPENDIX C

## Environmental Considerations Memo

Date: August 07, 2020  
To: Michael Morrissey, Exhibition Grounds Manager, CVRD  
cc: Jennifer Zbinden, Senior Manager, Recreation Facilities, CVRD  
Phil Rinn, Project Leader, Urban Systems  
From: Rachel Howes and Rhonda Maskiewich, Urban Systems  
File: 3023.0013.01  
**Subject: Comox Valley Exhibition/Stonehenge Grounds:  
Environmental Considerations**

## 1.0 INTRODUCTION

Urban Systems is working with the Comox Valley Regional District (CVRD) on a new landscape plan for the newly expanded Comox Valley Exhibition/ Stonehenge Grounds (CVEx). Herein referred to as the “project area,” CVEx is located on Headquarters Road within the City of Courtenay (**Figure 1.1**). Considerations for the ongoing transformation of CVEx as a central community hub and regional events centre, including potential expansion of facilities and infrastructure, and associated floodplain setbacks, have been included within this memo.

This memorandum includes relevant environmental features, potential regulatory requirements, and project specific recommendations. However, this memorandum does not constitute a full environmental assessment of the project area, nor does it provide an exhaustive list of recommendations. Further investigations and mitigation measures may be required.

## 2.0 ENVIRONMENTAL FEATURES

### 2.1 Surface Water Resources

Searches of the BC iMap<sup>1</sup> and BC Habitat Wizard<sup>2</sup> web applications were conducted on July 27, 2020. The search results did not show surface water resources within the project area. The search indicated that the Tsolum River is adjacent to the project area to the south-west (**Figure 2.1**). Tsolum River is approximately 40 km in length and a fifth order stream. Species present include: chum salmon, coho salmon, cutthroat trout, cutthroat trout (anadromous), dolly varden,

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<sup>1</sup> BC Ministry of Forests, Lands and Natural Resource Operations. 2020. iMapBC. Available: <http://maps.gov.bc.ca/ess/sv/imapbc/>. Accessed July 27, 2020.

<sup>2</sup> BC Ministry of Forests, Lands and Natural Resource Operations. 2020. BC Habitat Wizard. Available: <http://www.env.gov.bc.ca/habwiz/>. Accessed July 27, 2020.

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kokanee, pacific lamprey, pink salmon, rainbow trout, sockeye salmon, steelhead, steelhead (winter-run), threespine stickleback, and western pearlshell mussel.

Although Vanier Creek and an unnamed stream were not identified within provincially available data, they have been identified within the project area and are mapped to show connectivity to the Tsolum River (**Figure 2.1**). During our site visit in July 2020, these streams did not contain water. However, the unnamed stream had a stagnant pond of water present in the south-east corner of the project area. According to CVRD sources, over 3,000 trapped salmon fry were relocated from ponds in upper reaches of Vanier Creek in 2019.

The *Tsolum River Tributaries Mapping and Inventory Project*<sup>3</sup> reported that salmonids within Vanier creek were killed during a siltation event and that an instream pond used for livestock watering is likely used by coho including wintering juveniles and migrating smolts. Five (5) ditches were also identified in the City of Courtenay *Official Community Plan Map #6 - Environmental Development Permit Areas*<sup>4</sup>. One additional ditch was identified across Dove Creek Place. The ditches are shown on **Figure 2.1**.

Additionally, there are existing drainage ditches located along Dove Creek Place, Headquarters Road, and the eastern edge of the project area (**Figure 2.1**).

## 2.2 Flood Plains

The project area falls largely within the 200-year floodplain of the Tsolum River (**Figure 1.1**). According to CVRD sources, the Rotary Bowl (**Figure 2.1**) is prone to flooding (up to 2.5 feet deep) and trails along the Tsolum River occasionally wash out due to flooding. Flooding and wash out is especially evident during King tides during the rainy season. The CVRD also stated that most of the project area drains well after rain except for the parcel in the northern corner of the site (former Stonehenge Farm) as it sometimes contains pools of water up to 3 feet deep in the fall.

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<sup>3</sup> Bainbridge, G. and Chamberlain, D. 1998. Tsolum River Tributaries Mapping and Inventory Project Sensitive Habitat Inventory and Mapping (SHIM) Surveys. Available: <https://docs.google.com/file/d/0BxixYjvpOF3neFNPZVE0ajlIMTA/edit>.

<sup>4</sup> City of Courtenay. Revised 2010. Map 6 Environmental Development Areas. Available: [https://www.courtenay.ca/assets/Departments/Development~Services/OCP\\_Map\\_EnviroDPAreas.pdf](https://www.courtenay.ca/assets/Departments/Development~Services/OCP_Map_EnviroDPAreas.pdf).

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## 2.3 Riparian Area information

### 2.3.1 Tsolum River

According to a sensitive habitat inventory conducted by Project Watershed in 1998<sup>5</sup>, the riparian area (sensitive ecosystem) of the eastern bank of the Tsolum River extends approximately 150 m into the project area (**Figure 2.1**), with the riparian area consisting primarily of a well-established forest. For more information, refer to the Tsolum River Restoration Society (<https://www.tsolumriver.org/>).

### 2.3.2 Vanier Creek

Within the project area, the riparian area of Vanier Creek is found within the eastern portion of the project area (**Figure 2.1**). The riparian area consists of a narrow band of forested area. According to Google Earth Satellite Imagery, the forested area along Vanier Creek varies from approximately 13 m wide to 25 m wide within the project area. Vegetation along Vanier Creek was confirmed during the July 2020 field assessment.

### 2.3.3 Unnamed Stream

Within the project area, the riparian area of the unnamed stream is found within the north-west (**Figure 2.1**). The riparian area consists of a narrow band of forested area until it meets with the larger forested riparian area of Tsolum River. According to Google Earth Satellite Imagery, the narrow band of forested area along the unnamed stream varies from approximately 9 m wide to 22 m wide. Vegetation along the unnamed stream was confirmed during the July 2020 field assessment.

### 2.3.4 Drainage Ditches

There are existing drainage ditches located along Dove Creek Place, Headquarters Road, and the eastern edge of the project area (**Figure 2.1**). The riparian areas along the ditches generally consist of low-lying vegetation, shrubs and some smaller trees. The approximate width of the riparian areas varies from approximately 4 m wide to 12 m wide, according to Google Earth Satellite Imagery. Vegetation along the ditches was confirmed during the July 2020 field assessment.

## 2.4 Ecosystem Classifications

The *Biogeoclimatic Ecosystem Classification system* is used by natural resource practitioners within the Province of British Columbia to describe general terrestrial ecosystem characteristics, including regional vegetation, as well as biological, geographical and climatic characteristics.

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<sup>5</sup> Project Watershed. 1998. Sensitive Habitat Inventory and Mapping (SHIM) Surveys. Available: <https://drive.google.com/file/d/0Bzmx5xIjT8EODRhZiQyMzAtN2M2My00ZWE4LWI3MGltMzQzMGIODRiMTQx/view>.

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The project area is located within the *Coastal Western Hemlock very dry maritime biogeoclimatic sub-zone (CWHxm)*. The CWH zone occurs at low to middle elevations, mostly west of the coastal mountains, along the entire British Columbia coast<sup>6</sup>.

## 2.5 Archaeological/ Heritage Resources

A search of the Integrated Land and Resource Registry (ILRR) records was conducted on July 28, 2020. The ILRR provides information on various legal interests on provincial Crown land and private land, where available, including tenures, regulated uses, sensitive occurrence records such as archaeological sites, land and resource use restrictions, and reservations. For the purposes of this memo, the search was conducted to determine sensitive records that may indicate cultural resources and archaeological sites.

The ILRR search revealed one sensitive record within proximity to the project area. A request was sent to the provincial Archaeology Branch to determine details of the sensitive record. The archaeological site inventory officer indicated that the sensitive record pertains to the “historic place designation” of the Comox Valley Exhibition Grounds. The officer also stated that there are no known archaeological sites recorded on any of the properties within the project area. The Archaeology Branch did not identify the need for an archaeological study or provincial heritage permit. However, if archaeological materials are encountered during development, works must stop immediately, and the Archaeology Branch must be contacted for further direction at 250-953-3334.

### 2.5.1 City of Courtenay Heritage Register

Comox Valley Exhibition Grounds (4795, 4835 and 4839 Headquarters Road in Courtenay, B.C.) is registered under the City of Courtenay Heritage Register<sup>7</sup>.

## 2.6 Species and Ecosystems at Risk

The *BC Conservation Data Centre (CDC)* maps known species and ecosystem occurrences of red- and blue-listed species and ecosystems using the best available information. The CDC iMap was used to search for species occurrences within proximity to the project area<sup>8</sup>. No known species occurrences were documented within the project area; however, one documented occurrence of a green heron (*Butorides virescens*) has been identified approximately 1 km south-

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<sup>6</sup> Meidinger, D. and Pojar, J. (Eds.) (1991). *Ecosystems of British Columbia: Coastal Western Hemlock Zone*. British Columbia Ministry of Forests: Victoria, BC.

<sup>7</sup> City of Courtenay. 2011. Heritage Register. Available: [https://www.courtenay.ca/assets/Community/Heritage/Docs~~~Heritage/courtenay\\_heritage\\_register2009.pdf](https://www.courtenay.ca/assets/Community/Heritage/Docs~~~Heritage/courtenay_heritage_register2009.pdf).

<sup>8</sup> BC Government. 2020. BC Conservation Data Centre Website. Available: <http://maps.gov.bc.ca/ess/hm/cdc/>. Accessed July 20, 2020.

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east of the project area. Additionally, a documented occurrence of western screech owl (*Megascops kennicottii kennicottii*) was identified approximately 1.4 km north-west of the project area.

## 2.7 Critical Habitat

Critical habitat is identified for species listed as *Endangered* or *Threatened* under the federal *Species at Risk Act* (SARA), and is defined under Section 2 of the *Act* as: “the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species’ critical habitat in the recovery strategy or in an action plan for the species.”

Under SARA, it is illegal to destroy any part of the critical habitat of any listed endangered species or of any listed threatened species (or of any extirpated species if a recovery strategy has recommended the reintroduction of the species into the wild in Canada) if:

- a) the critical habitat is on federal land, in the exclusive economic zone of Canada or on the continental shelf of Canada;
- b) the listed species is an aquatic species; or
- c) the listed species is a species of migratory birds protected by the [Migratory Birds Convention Act](#).

A search of the Province of British Columbia’s DataBC information was conducted on July 20, 2020<sup>9</sup>. The search revealed that there is no critical habitat within the project area.

## 2.8 Contaminated Sites

### 2.8.1 Provincial Site Registry

Data downloaded from the Government of BC’s Data Catalogue on July 29, 2020, indicated that there were three (3) contaminated sites within the project area<sup>10</sup>. However, addresses associated with the contaminated sites indicate that two of the contaminated sites are found outside of the project area (**Table 2.1**). The Site IDs for the contaminated sites were searched through the BC Ministry of Environment’s (MoE) Contaminated Sites Registry, using BC OnLine on July 29, 2020<sup>11</sup>. Records were downloaded from the BC OnLine Site Registry and a brief summary of these sites is provided in **Table 2.1** below (detailed reports are available upon request). There were no other provincially documented contaminated sites within 500 m of the project area boundary.

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<sup>9</sup> BC Government. 2020. iMap BC. Available: <https://maps.gov.bc.ca/ess/hm/imap4m/>. Accessed July 20, 2020.

<sup>10</sup> BC data Catalogue. 2020. Environmental Remediation Sites. Available: <https://catalogue.data.gov.bc.ca/dataset/environmental-remediation-sites>. Accessed July 29, 2020.

<sup>11</sup> BC Government. 2020. BC OnLine. Available: <https://www.bconline.gov.bc.ca/>. Accessed July 29, 2020.



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**Table 2.1 – Summary of Provincial Contaminated Sites within the project area**

Site ID	Address	Location	Status	Notes
18031*	4835 Headquarters Road	Within the project area	Not assigned	No activities reported.
4829	4830 Headquarters Road & 3001 Vanier Drive	Across Headquarters Road at Vanier Secondary School and Comox Valley Sports Centre	Not assigned	Commercial and industrial purposes or activities on site. Schedule 2: <ul style="list-style-type: none"> <li>• Paint/lacquer/varnish manu/formulat/recycle/whlsle bulk store</li> <li>• Welding or machine shops (repair or fabrication)</li> <li>• Appliance/equip or engine repair/recondition/cleaning/salvage</li> <li>• Rifle or pistol firing ranges</li> <li>• Auto/truck/bus/subway/other vehicle repair/salvage/wrecking</li> <li>• Hazardous waste storage, treatment, disposal</li> <li>• Contaminated soil storage, treatment or disposal</li> <li>• Wafer board manufacturing</li> </ul> Areas of Potential Concern listed
4735	4830 Headquarters Road	Across Headquarters Road at Vanier Secondary School	Not assigned	Soils originated from site at 4734; bio-cell constructed to remediate soils at site 4735

\*Additional information should be obtained for this contaminated site to determine if it is associated with the curling rink investigation conducted by McElhanney in 2014<sup>12</sup>.

<sup>12</sup> McElhanney. 2014. Phase II Environmental Site Assessment 4835 Headquarters Road Courtenay, BC. Prepared for Comox Valley Regional District.

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## **2.8.2 Federal Contaminated Sites Inventory**

A search of the *Treasury Board of Canada's Federal Contaminated Sites Inventory* website was conducted on July 20, 2020. The results of the search indicated that there are no known federally registered contaminated sites within the project area. There is one federally registered contaminated site located approximately 700 m south-east of the project area, which has the site status of "closed" (Treasury Board of Canada Secretariat, 2020). The site name is "Stotan Falls Fish Passage – Unassessed" and the reporting organization is *Fisheries and Oceans Canada*. This contaminated site is not anticipated to affect the project area.

## **2.9 Connectivity to Adjacent Ecosystems**

The project area is adjacent to the Tsolum River. The majority of the surrounding area is residential or agricultural land. Wildlife corridors appear to be present along Vanier Creek and the unnamed stream in the form of a narrow band of forested area. Both forested areas extend past Headquarters Road to larger forested areas north-east of the project area. A narrow, forested band also exists along the south-east edge of the property that extends from the forested area adjacent to the Tsolum River to a patch of forest to the west of Highway 19. Operational road crossings are present within the narrow band of forested area. The forested riparian area along the Tsolum River acts as a wildlife corridor to the north and south of the project area.

Additionally, agricultural areas are often used by wildlife. Connectivity to agricultural areas to the north of Dove Creek Road and to the south-east of the project area likely also provide corridors for resident and migratory wildlife species.

## **3.0 POTENTIAL REGULATORY REQUIREMENTS**

### **3.1 Federal**

#### **3.1.1 Fisheries Act**

The *Fisheries Act* provides a framework to manage and control Canada's fisheries, and to conserve and protect fish and fish habitat, including by preventing pollution. The *Act* was amended June 21, 2019, with changes coming into force August 28, 2019. Under the *Act*, activities (other than fishing) that result in the death of fish, and/or activities that may result in the harmful alteration, disruption or destruction of fish habitat, are prohibited.

Projects with the potential to adversely impact fish and/or fish habitat should be reviewed by the Department of Fisheries and Oceans Canada (DFO) through the "Request for Review" process. This applies to work in or near water bodies that are frequented by fish and any other areas on which fish depend directly or indirectly to carry out their life processes, including spawning grounds and nursery, rearing, food supply and migration areas, including any waterbody that is connected to fish-bearing waters at any time of the year. The review will determine if the project requires an authorization under the *Fisheries Act*.

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### **3.1.1.1 Request for Review Application**

A Request for Review should be submitted to Fisheries and Oceans Canada that details construction and mitigation to avoid impacts to fish and/or fish habitat. Timelines associated with responses to the Request for Review can be in excess of four (4) weeks. If it is determined that an authorization is required, then timelines could be longer.

### **3.1.1.2 Application for a Licence to Fish for Scientific, Experimental, or Educational Purposes**

Pursuant to Section 52 of the Fishery (General) Regulations under the *Fisheries Act*, a licence to fish for scientific, experimental, or educational purposes will be required for works where a fish salvage is warranted.

### **3.1.2 Migratory Birds Convention Act**

The federal *Migratory Birds Convention Act* (S.C. 1994, c. 22) protects migratory birds and their nests from indiscriminate harvesting and destruction. This Act primarily pertains to the initial phase of construction (i.e. land clearing and tree removal). A preliminary review indicates that clearing should be conducted outside of the bird nesting season (nesting season: late March – mid August) to avoid potential impacts to migratory birds. If this is not possible for any reason, then a Qualified Environmental Professional (QEP) should be retained to undertake an active nest survey prior to clearing to maintain compliance with this Act.

No applications are anticipated under this Act if works can be conducted outside of the above-mentioned nesting season.

### **3.1.3 Species at Risk Act**

The federal *Species at Risk Act* (SARA) provides protection to endangered or threatened organisms and their habitats. This legislation applies to all federal land. Although SARA prohibitions are automatically imposed on federal lands including First Nations lands, the *intent* of SARA also applies to provincial crown and private lands.

On non-federal or private land, the general prohibitions under SARA apply to aquatic species listed as endangered, threatened, or extirpated in Schedule 1 and to migratory birds listed in the *Migratory Birds Convention Act* and also listed as endangered, threatened or extirpated in Schedule 1 of SARA.

#### **3.1.3.1 Application for a Species at Risk Permit**

The project area is not within federal land. However, permits may be required under this Act if any impacts may result to any aquatic species that are listed on Schedule 1. A search of the *Fisheries and Oceans Canada's Aquatic Species at Risk Map* did not identify aquatic species at

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risk or critical habitat within the project area<sup>13</sup>. Therefore, it is unlikely that a permit under SARA will be required.

## 3.2 Provincial

### 3.2.1 *Agricultural Land Commission Act and Agricultural Land Reserve Regulations*

The *Agricultural Land Commission Act (ALC Act)* was enacted to provide protection of agricultural land in British Columbia<sup>14</sup>. The *ALC Act* takes precedence over, but does not replace, other legislation and bylaws that may apply to the land. Local/ regional governments and provincial agencies are expected to preserve agricultural land in accordance with this provincial policy. The *Agricultural Land Reserve Use Regulation* specifies land uses permitted in the Agricultural Land Reserve (ALR).

The project area is within the ALR. Therefore, land use within the project area must adhere to permitted land uses within the ALR. Alternatively, the following applications may be required depending on the proposed works:

#### 3.2.1.1 **Transportation, Utility, or Recreational Trail Uses within the ALR**

If new recreational trails, utility installations, or roads are proposed within the project area, an application under the *Agricultural Land Commission Act* may be required.

#### 3.2.1.2 **Conduct a Non-Farm Use activity within the ALR**

If a non-farm use activity is proposed within the ALR, an application under the *Agricultural Land Commission Act* will be required.

#### 3.2.1.3 **Placement of fill on ALR land for a non-farm use activity**

If placement of fill on the ALR is proposed within the project area, an application under the *Agricultural Land Commission Act* will be required.

### 3.2.2 *Riparian Areas Protection Regulation*

The Riparian Areas Protection Regulation (RAPR) is enabled by the *Riparian Areas Protection Act*. The RAPR applies to all streams, rivers, creeks, ditches, ponds, lakes, springs and wetlands connected by surface flow to a watercourse that provides fish habitat within the jurisdiction of local governments that have adopted the RAPR for all residential, commercial and industrial development. The CVRD is

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<sup>13</sup> Fisheries and Oceans Canada. 2020. Aquatic Species at Risk Map. Available: <https://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>. Accessed July 30, 2020.

<sup>14</sup> Agricultural Land Commission. 2020. The ALC Act and ALR Regulations. Available: <https://www.alc.gov.bc.ca/alc/content/alc-act-alr-regulation/the-alc-act-and-alr-regulations>.

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a local government that has accepted the RAPR and the City of Courtenay accepts the RAR as a minimum standard for stream and riparian protection.

The RAPR applies to development that is residential, commercial or industrial development. Therefore, it is not anticipated that an application under the RAPR will be required for the project works.

### **3.2.3 Water Sustainability Act**

The *BC Water Sustainability Act* (SBC 2014; c. 15) is intended to protect the quantity and quality of water, fish and wildlife habitat, and the rights of licensed water users. It is the principal law for managing the use and diversion of both groundwater and surface water resources in BC. Under Section 11 of the *Act*, any activities that result in potential “changes in or about a stream” requires a Section 11 notification or approval.

#### **3.2.3.1 Changes in and About a Stream Application**

It is anticipated that any works in and around Vanier Creek, the unnamed stream or fish-bearing ditches, including culverts and stream crossings, will need to be addressed via an application under Section 11 of the *BC Water Sustainability Act*. Timelines associated with an approval under the *Water Sustainability Act* can be significant – in excess of five (5) months.

### **3.2.4 Wildlife Act**

The *Wildlife Act* governs the protection and management of wildlife in BC. The *Act* defines wildlife as all native and some non-native amphibians, reptiles, birds, mammals and fish. The *Wildlife Act* protects virtually all vertebrate animals from direct harm, except as allowed by regulations (e.g., hunting or trapping). In BC, 152 wildlife species and sub-species are considered candidates for endangered, threatened or vulnerable status. The *Act* deals with the protection and maintenance of suitable habitat and the conservation of wild species; in particular those species that may be at risk of extinction, as well as nesting birds, their nests and their eggs. Section 34 of the *Wildlife Act* prohibits possessing, taking or destroying (i) a bird or its egg, (ii) the nest of an eagle, peregrine falcon, gyrfalcon, osprey, heron or burrowing owl, or (iii) the nest of a bird not mentioned in (ii), when the nest is occupied by a bird or its egg unless authorized under permit.

By conducting vegetation and ground disturbance activities outside of the nesting season for birds (nesting season for birds in the Courtenay area is late March to mid August), a proponent is often able to maintain compliance with respect to Section 34 of this *Act*. In addition, ensuring construction activities do not harm vertebrate animals will help to maintain compliance with this *Act*.

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### 3.2.4.1 Fish Salvage Application

Pursuant to Section 18 of the *Angling and Scientific Collection Regulation* under the *Wildlife Act*, a fish collection permit will be required for works where a fish salvage is warranted.

### 3.2.4.2 Amphibian Salvage Application

Pursuant to Section 2 (c)(i) of the Permit Regulation, a permit under the *Wildlife Act* for the salvage of amphibians will be required where an amphibian salvage is warranted.

### 3.2.5 Environmental Management Act, BC Contaminated Sites Regulation

Many sites in the province became contaminated during past industrial or commercial activities that resulted in chemicals or toxic materials being spilled or deposited on land. The most common contaminants include heavy metals such as lead, arsenic, cadmium, and mercury. Many sites also have organic chemicals, including benzene and toluene in gasoline. Currently, there are over 14,000 sites being tracked in government records. This includes sites that are:

- Still going through the screening process (and are not yet confirmed as contaminated or not)
- Being cleaned up
- Awaiting final confirmation that cleanup is complete
- Confirmed as cleaned up
- There are a number of triggers that bring sites to the Province's attention:
  - Applications for contaminated sites legal instruments and services
  - Notifications of independent remediation and contaminant migration
  - The receipt of site profiles
  - Spill reports
  - Complaints

The Site Registrar at the Ministry of Environment is legally obligated to record such information on the Site Registry. Although three sites have been noted within the project area, only one provincially registered contaminated site appears to be within the project area.

### 3.2.6 Heritage Conservation Act

All archaeological sites in BC are protected under the *Heritage Conservation Act* and must not be damaged or altered without a Provincial heritage permit issued by the BC Archaeology Branch. This protection applies even when archaeological sites are previously unidentified or disturbed and applies to sites located on public and/or private land. If a permit is required, the permit application and issuance process takes 8-12 weeks and involves First Nation consultation.

If a known recorded archaeological site is present within the project area, a site alteration permit under the *Heritage Conservation Act* will be required. Additionally, if archaeological artefacts are

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uncovered during development of the project area, works must stop and the Archaeology Branch must be contacted for direction.

### **3.2.7 Local Government Act**

The purpose of the *Local Government Act* is to provide a framework for the establishment and continuation of local governments to represent the interests of their communities. The *Local Government Act* requires local governments to consider the *Flood Hazard Area Land Use Management Guidelines* when designating floodplains. In January 2018, there was an amendment to the *Flood Hazard Area Land Use Management Guidelines* that incorporates sea level rise into the determination of building setbacks and flood construction levels in coastal areas. This Act and the Guidelines should be considered when considering the planning and design of future buildings, facilities and infrastructure.

## **3.3 Municipal Bylaws**

While the project area is owned by the CVRD, it is within the City of Courtenay and is subject to City of Courtenay Bylaws.

### **3.3.1 Zoning Bylaw No. 2500, 2007**

The Zoning Bylaw is applicable to all land, buildings and structures within the Corporation of the City of Courtenay<sup>15</sup>. The Zoning Interactive Map indicates that the project area consists of Agricultural One Zone (A-1) (north corner of the site) and Agricultural Two Zone (A-2) (remainder of the site).

*Zone A-1* permitted uses include agricultural use, accessory, building and structure, agricultural business, mobile home, home occupation, and single residential dwelling.

*Zone A-2* permitted uses include: agricultural use, fairgrounds, assembly hall, recreation facility and accessory temporary accommodation, utility facility, and accessory uses (residential use limited to one dwelling unit, and camping directly related to a sanctioned event occurring on the same lands (on any lot containing fairgrounds)).

Any agricultural buildings are subject to the Zoning Bylaw and must adhere to the setbacks from watercourses that are provided within this bylaw.

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<sup>15</sup> City of Courtenay. 2007. Zoning Bylaw No. 2500, 2007. Available:  
[https://www.courtenay.ca/assets/Departments/Development~Services/Bylaw\\_2500\\_Zoning.pdf.pdf](https://www.courtenay.ca/assets/Departments/Development~Services/Bylaw_2500_Zoning.pdf.pdf).

Date: August 07, 2020  
File: 3023.0013.01

### 3.3.2 Official Community Plan Bylaw No. 2387, 2005

The Official Community Plan (OCP) outlines environmental, economic, social, and cultural policies in addition to servicing, land use patterns, and transportation<sup>16</sup>. Environmentally Sensitive Areas are outlined in *Map #6 - Environmental Development Permit Areas*<sup>17</sup>, which have been established to protect river systems and associated aquatic features such as streams, ditches and associated buffers that need to be considered throughout design and construction. Map #6 also shows that the project area is entirely within the Agricultural Land Reserve. The Environmentally Sensitive Areas within the project area are shown on **Figure 2.1** and can be summarized as:

- The Tsolum River has a 30 m buffer
- Vanier Creek is considered a stream with a 30 m buffer
- The unnamed stream is considered a ditch with a 5 m buffer
- There are two more ditches with a 5 m buffer within or adjacent to the project area and additional ditches are shown to the east of Headquarters Road.

According to the OCP, no development or fill shall be allowed within the designated 200-year floodplain of the Tsolum River. Additionally, The OCP states that any development adjacent to or near a stream or wetland area must adhere to the requirements of the *Land Development Guidelines for the Protection of Aquatic Habitat 1992* (**Section 4.2**).

#### 3.3.2.1 Environmental Development Permit

An Environmental Development Permit may be required for works within the stream buffers, the riparian area (sensitive ecosystem) of Tsolum River, and/or for other project works.

### 3.3.3 Floodplain Management Bylaw No. 1743

The *Floodplain Management Bylaw*<sup>18</sup> is applicable to all land, buildings and structures within the corporate limits of the Corporation of the City of Courtenay. This bylaw outlines floodplain designation, floodplain specifications including flood construction levels and floodplain setbacks, and the application of floodplain specifications. The bylaw includes mapping of the existing floodplains for the Puntledge River, Tsolum River, and Courtenay River.

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<sup>16</sup> City of Courtenay. 2016. Official Community Plan Appendix “A” to Bylaw No. 2387. Available: [https://www.courtenay.ca/assets/Departments/Development~Services/Bylaw\\_2387\\_OCP.pdf.pdf](https://www.courtenay.ca/assets/Departments/Development~Services/Bylaw_2387_OCP.pdf.pdf).

<sup>17</sup> City of Courtenay. Revised 2010. Map 6 Environmental Development Areas. Available: [https://www.courtenay.ca/assets/Departments/Development~Services/OCP\\_Map\\_EnviroDPAreas.pdf](https://www.courtenay.ca/assets/Departments/Development~Services/OCP_Map_EnviroDPAreas.pdf).

<sup>18</sup> City of Courtenay. 1994. Floodplain Management Bylaw No. 1743. Available: [https://www.courtenay.ca/assets/City~Hall/Bylaws/Land~Use/cons1743%20Floodplain%20Management%20\(updated%20May%203%202011\)%20with%20big%20maps.pdf](https://www.courtenay.ca/assets/City~Hall/Bylaws/Land~Use/cons1743%20Floodplain%20Management%20(updated%20May%203%202011)%20with%20big%20maps.pdf)



Date: August 07, 2020  
File: 3023.0013.01

The 200-year Tsolum River floodplain setback should be a primary consideration in the in the planning and construction of buildings and infrastructure within the project area. Please note that the floodplain illustrated in this bylaw's map sheet (Schedule B) varies from the floodplain mapping provided by the CVRD.

### **3.3.4 Tree Protection and Management Bylaw No. 2850, 2016**

Under the *Tree Protection and Management Bylaw*, the cutting and removal of trees, the protection of retained trees during development, the treatment of trees, and tree retention and or/ planting targets are regulated<sup>19</sup>. This bylaw applies to all properties within the City of Courtenay and to all protected trees. This bylaw also includes definitions for protected species and protected trees (which include trees within a Riparian Assessment Area and within an Environmentally Sensitive Area).

#### **3.3.4.1 Tree Cutting Permit**

A Tree Cutting Permit is required prior to the removal of any tree over 20 cm in diameter at breast height (dbh), the removal of a protected tree, and/or the cutting of a tree branch over 10 cm in diameter.

## **4.0 PROJECT-SPECIFIC RECOMMENDATIONS**

Based on the summary of the environmental values and the findings summarized in this memorandum, the following recommendations are provided for the design and planning of the proposed Comox Valley Exhibition/Stonehenge Grounds:

### **Planning / Design:**

1. If possible, avoid development within the 200-year floodplain of the Tsolum River. If this cannot be achieved, site specific construction methodology and mitigation will need to be implemented in order to reduce the potential risk and impacts.
2. Avoid development within riparian areas and established buffers (**Figure 2.1**).
3. If stream crossings / works within streams are required, determine their exact locations to inform permit applications
4. Complete a stream habitat assessment on Vanier Creek if works are proposed that may affect the stream
5. Apply for the permits and applications listed in **Section 4.1** as soon as possible to avoid project delays.

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<sup>19</sup> City of Courtenay. 2016. Tree Protection and Management Bylaw No. 2850, 2016. Available: [https://www.courtenay.ca/assets/City~Hall/Bylaws/Land~Use/2850\\_Tree\\_Protection\\_Bylaw.pdf](https://www.courtenay.ca/assets/City~Hall/Bylaws/Land~Use/2850_Tree_Protection_Bylaw.pdf).

Date: August 07, 2020  
File: 3023.0013.01

6. Follow guidance documents listed in **Section 4.2**
7. Have a Qualified Professional prepare an Environmental Management Plan, including appropriate mitigation, to be followed during construction.
8. Review all applicable local bylaws and maintain compliance.
9. Conduct works within or adjacent to surface water resources (including roadside ditches) within the reduced risk timing window for fish in the Vancouver Island Region, June 15 to September 15. If works cannot be completed within the reduced risk timing window, consult a Qualified Professional to develop appropriate mitigation methods.
10. Additional details should be requested regarding each of the three provincially registered contaminated sites prior to the completion of the detailed design.

### **Construction**

1. If works are to occur in watercourses that may contain fish, then fish salvage will be required. A permit is required to undertake fish salvage. This should be applied for well in advance of planned salvage activities.
2. Prepare a sediment and erosion control plan.
3. As tree removal will occur and works will occur with proximity to trees, a Qualified Professional should be consulted to assess the area for bird nests prior to vegetation removal.
4. Have a Qualified Professional prepare a site-specific Construction Environmental Management Plan
5. Conduct vegetation clearing outside of the nesting season for birds (nesting season: late March – mid August). However, if clearing does occur during the nesting season a Qualified Professional should be consulted to assess the area for bird nests prior to vegetation removal. Avoid the removal of trees whenever possible.

### **4.1 Summary of Permits and Applications**

The following is a list of permits and applications that may be required for the project area:

- Provincial Changes in and About a Stream Application (Section 11)
- Federal Request for Review Application
- Provincial Fish Salvage Application
- Federal Licence to Fish for Scientific, Experimental, or Educational Purposes.
- Amphibian Salvage Application
- Application for a Species at Risk Permit (Aquatic Species)
- Environmental Development Permit
- Tree Cutting Permit

Date: August 07, 2020  
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- Transportation, Utility, or Recreational Trail Uses within the ALR
- Conduct a Non-Farm Use activity within the ALR
- Placement of fill on ALR land for a non-farm use activity

## 4.2 Guidance Documents

The following is a list of relevant guidance documents:

- Government of British Columbia. 2004. **Provincial Flood Hazard Land Use Management Guidelines**. Available: [https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/integrated-flood-hazard-mgmt/flood\\_hazard\\_area\\_land\\_use\\_guidelines\\_2017.pdf](https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/integrated-flood-hazard-mgmt/flood_hazard_area_land_use_guidelines_2017.pdf).
- Department of Fisheries and Oceans Canada. 1992. **Land Development Guidelines for the Protection of Aquatic Habitat 1992**. Available: [http://www.sxd.sala.ubc.ca/9\\_resources/fed\\_%20files/fed%20land%20development%20guidelines.pdf](http://www.sxd.sala.ubc.ca/9_resources/fed_%20files/fed%20land%20development%20guidelines.pdf).
- Government of British Columbia. 2004. **Standards and Best Practices for Instream Works**. Available: <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/iswstdsbpsmarch2004.pdf>.
- MFLNRO. 2011. **Terms and Conditions for Changes In And About A Stream Specified By Ministry of Forests, Lands and Natural Resource Operations Habitat Officer, West Coast Region (Vancouver Island & Gulf Islands)**. Available: [https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/terms\\_conditions\\_van\\_island.pdf](https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/terms_conditions_van_island.pdf).
- MFLNRO. 2016. **Best Management Practices For Amphibian And Reptile Salvages In British Columbia** Available: <http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=10351>.
- Fisheries and Oceans Canada. 2020. **Fisheries and Oceans Canada Standards and Codes of Practice**. Available: <https://www.dfo-mpo.gc.ca/pnw-ppe/practice-pratique-eng.html>.
- MFLNRO and Fisheries and Oceans Canada. 2012. **Fish-stream Crossing Guidebook**. Available: [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/resource-roads/fish-stream\\_crossing\\_web.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/resource-roads/fish-stream_crossing_web.pdf).
- Fisheries and Oceans Canada. 2020. **Measures to Protect Fish and Fish Habitat**. Available: <https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html>.
- ALC. 2018. **ALC Bylaw Reviews A Guide for Local Governments**. Available: [https://www.alc.gov.bc.ca/assets/alc/assets/library/land-use-planning/alc\\_bylaw\\_review\\_guide.pdf](https://www.alc.gov.bc.ca/assets/alc/assets/library/land-use-planning/alc_bylaw_review_guide.pdf).
- British Columbia Ministry of Agriculture and Lands. 2005. **A Guide to Using and Developing Trails in Farm and Ranch Areas**. Available: [https://www.kpu.ca/sites/default/files/BCMA\\_trail%20use%20and%20development%20guide\\_2005.pdf](https://www.kpu.ca/sites/default/files/BCMA_trail%20use%20and%20development%20guide_2005.pdf).

MEMORANDUM



Date: August 07, 2020

File: 3023.0013.01

## 5.0 CLOSING

We trust this memo is informative and will act as a foundational document in the CVEx Landscape Plan. Please contact us directly if you have any questions or comments regarding the environmental scope of the project.

### URBAN SYSTEMS LTD.

A handwritten signature in black ink, appearing to read 'Rachel Howes'.

Rachel Howes, B. Sc.  
Environmental Consultant

### Reviewed by:

A handwritten signature in black ink, appearing to read 'Rhonda Maskewich'.

Rhonda Maskewich, P.Ag, RPBio  
Environmental Planner/Principal

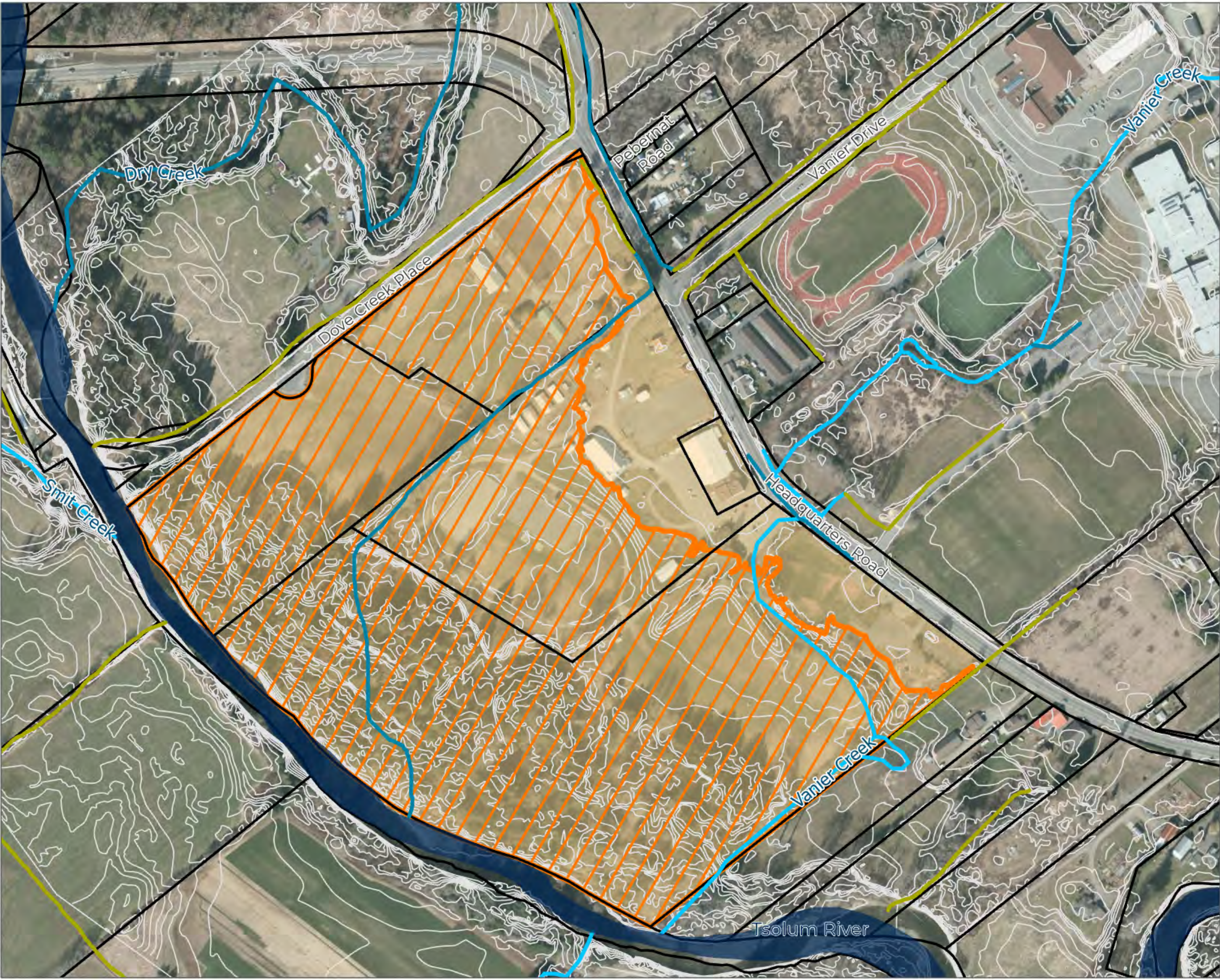
A handwritten signature in black ink, appearing to read 'Chad Lishman'.

Chad Lishman, M.Sc., P.Ag.  
Environmental Consultant

/rm

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 Last printed by osetteff on September 25, 2017 11:40 AM



**Comox Valley Regional District**  
**Comox Valley Exhibition Grounds:**  
**Landscape Plan**

**Environmental Features**

**Legend**

- Subject Site
- Parcels
- 200 Year Floodplain
- Ditches
- Contours (0.5m)

**Streams**

- Confirmed fish presence
- Unknown fish presence

**Notes:**

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



**Coordinate System:** NAD 1983 UTM Zone 10N  
**Scale:** 1:3,500 (When plotted at 11"x17")

**Data Sources:**  
 - Data retrieved from the Comox Valley Regional District, City of Courtenay, and Data BC.

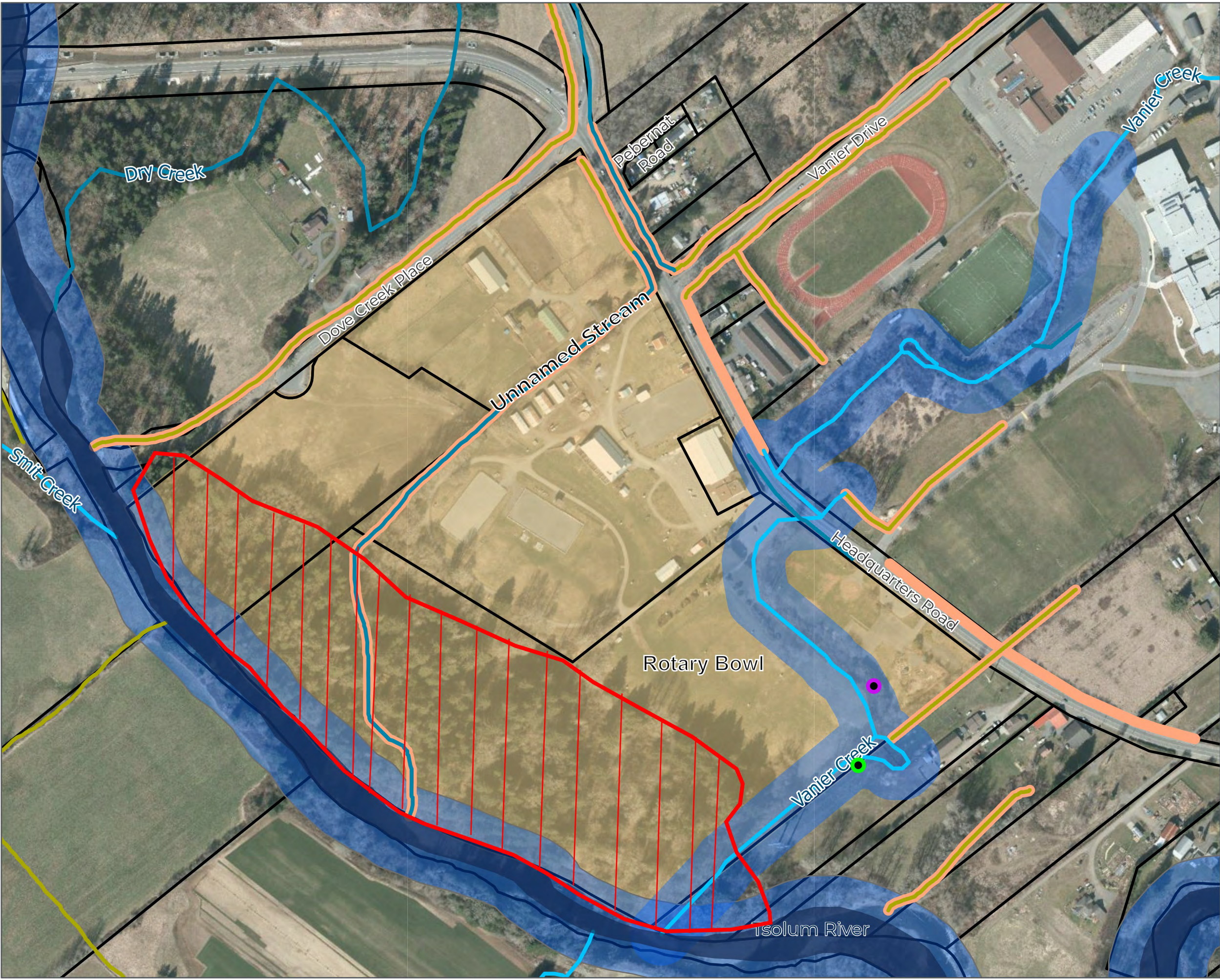
Project #: 3023.0013.01  
 Author: OS  
 Checked: PR / RH  
 Status: **FINAL**  
 Revision: A  
 Date: 2021 / 6 / 23



**FIGURE 1.1**

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**Comox Valley Regional District**  
**Comox Valley Exhibition Grounds:**  
**Landscape Plan**

**Environmental Features**

**Legend**

- Subject Site
- Parcels
- Ditches

**Streams**

- Confirmed fish presence
- Unknown fish presence

- Stream Buffer (30m)
- Ditch Buffer (5m)

- Sensitive Ecosystem
- Stagnant Pond
- Livestock Pond

**Notes:**

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



**Coordinate System:** NAD 1983 UTM Zone 10N  
**Scale:** 1:3,500 (When plotted at 11"x17")

**Data Sources:**  
 - Data retrieved from the Comox Valley Regional District, City of Courtenay, and Data BC.

Project #:	3023.0013.01
Author:	OS
Checked:	PR / RH
Status:	<b>Status</b>
Revision:	A
Date:	2020 / 8 / 6

**URBAN**  
 S Y S T E M S

**FIGURE 2.1**

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The background of the page is a light gray map of a city street grid. The grid consists of various street patterns, including straight lines, curves, and dead ends. A prominent red rectangular box is positioned in the upper left quadrant of the page, containing white text. The text is arranged in three lines: the first line is the word 'APPENDIX D' in a large, bold, sans-serif font; the second line is 'Site Analysis &' in a smaller, bold, sans-serif font; and the third line is 'Workshop Summaries' in the same smaller, bold, sans-serif font. The red box has a solid, vibrant red color and a sharp, clean edge.

# **APPENDIX D**

## **Site Analysis & Workshop Summaries**

# MEETING NOTES

Subject: **CVEx Landscape Plan: Site Visit / Analysis**  
 Meeting Date: July 13, 2020  
 Time: 1:30pm- 5:30pm  
 Location: On-site  
 File: 003023.0013.01

**ATTENDEES**

Gary Jerzak  
 Mike Morrissey  
 Beth Hurford  
 Phil Rinn

**COMPANY**

Comox Valley Regional District  
 Comox Valley Regional District  
 Urban Systems  
 Urban Systems

**EMAIL**

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[bhurford@urbansystems.ca](mailto:bhurford@urbansystems.ca)  
[prinn@urbansystems.ca](mailto:prinn@urbansystems.ca)

<b><u>ITEM</u></b>	<b><u>DISCUSSION</u></b>	<b><u>ACTION BY:</u></b>
1	<p><b>Site Servicing</b></p> <ul style="list-style-type: none"> <li>• Existing bulk water pickup (along Headquarters Road; northeast corner of Market Field)               <ul style="list-style-type: none"> <li>○ Consider alternate location/access</li> <li>○ Currently a lack of signage</li> </ul> </li> <li>• Feasibility of sani-dump on-site for on-site campers during large events?               <ul style="list-style-type: none"> <li>○ Public vs. secure access?</li> <li>○ Asset vs. liability?</li> </ul> </li> <li>• Existing water service(s) and irrigation system installed at the Vanier Community Garden (east corner of Market Field adjacent to Vanier Creek)</li> <li>• Stonehenge Farm property: Is existing utility information available?               <ul style="list-style-type: none"> <li>○ City of Courtenay water connection from Headquarters Road</li> <li>○ On-site septic system (location and condition TBD)</li> </ul> </li> <li>• Mike Herschmiller, Manager of Water Services (CVRD) can be contacted with questions about the project.</li> </ul>	Info
2	<p><b>Site Access Observations / Discussion</b></p> <ul style="list-style-type: none"> <li>• Multiple access points along low-visibility corner of Headquarters Road (east to west)               <ul style="list-style-type: none"> <li>○ CVEG South Gate: paved, gated access - typically left open</li> <li>○ Bulk Water Fill Station: (x2 – entry/exit)</li> <li>○ Market Field: gravel, chained access - aligned with Schellinck Drive (main access road to G.P. Vanier Secondary School – gravel shoulder)</li> <li>○ Curling Club (main public access)</li> <li>○ CVEG North Gate: aligned with Vanier Drive (overhead lighting and servicing within median of potential 2-way entry access road installed as part of 2011 water/electrical upgrades by McElhanney.</li> <li>○ Stonehenge Farm: gravel, gated access</li> <li>○ Community Mailbox Layby</li> </ul> </li> <li>• Ditches along Headquarters Road are steep, difficult to maintain appear to have drainage issues (e.g. missing culverts; low points with no conveyance).</li> </ul>	Info



**MEETING NOTES**

Subject: CVEx Landscape Plan: Project Meeting #2  
 Meeting Date: July 13, 2020  
 File: 003023.0013.01  
 Page: 2 of 3



	<ul style="list-style-type: none"> <li>• Comox Sports Centre and G.P. Vanier Secondary School (directly north across Headquarters Road) are used for off-site parking during large events, as well as overflow storage for CVEx.             <ul style="list-style-type: none"> <li>○ Large amounts of people crossing the road uncontrolled = dangerous</li> <li>○ Problem with students regularly engaging in theft and vandalism</li> </ul> </li> <li>• Dove Creek Road Accesses:             <ul style="list-style-type: none"> <li>○ Stonehenge Farm: well-built, tree-lined gravel driveway with overhead lighting</li> <li>○ Dove Creek Field Gate: paved access along new cul-de-sac at the end of the road</li> </ul> </li> </ul>	
3	<p><b>Site Issues / Opportunities</b></p> <ul style="list-style-type: none"> <li>• Main entry by Curling Club has an underwhelming visitor experience and pedestrian safety concerns:             <ul style="list-style-type: none"> <li>○ Lack of drop-off and pedestrian facilities</li> <li>○ Circulation and wayfinding challenges</li> <li>○ Lack of shade (trees/shelter) to protect from sun/rain</li> <li>○ Dumpster location and lack of visual screening</li> <li>○ Lack of planting/beauty in main parking lot</li> </ul> </li> <li>• On-site, covered/interior storage is a BIG issue:             <ul style="list-style-type: none"> <li>○ There are informal storage areas around the exterior of most buildings – susceptible to theft and damage from vandals, weather, rodents, etc.</li> <li>○ Substantial storage contemplated as part of potential Agriplex project.</li> </ul> </li> <li>• Farmer’s Market:             <ul style="list-style-type: none"> <li>○ What is the story RE: its current location?</li> <li>○ Current site has accessibility / flooding challenges and access to washrooms is poor</li> <li>○ Winter location at CVEx?</li> </ul> </li> <li>• Stonehenge Farm:             <ul style="list-style-type: none"> <li>○ Could remove windrow trees and open use for extra parking</li> <li>○ Specimen trees = 4 London Planes + 1 Cherry</li> <li>○ Opportunity to co-locate Farmers’ Market and event parking?</li> </ul> </li> <li>• Cross-country equestrian course/jumps:             <ul style="list-style-type: none"> <li>○ To what extent is it used? By who? (e.g. English riders...)</li> <li>○ Current condition – maintenance plans/needs?</li> </ul> </li> <li>• Tsolum River Trails:             <ul style="list-style-type: none"> <li>○ Network of primary, secondary, tertiary trails</li> <li>○ Used by CVEx and larger community (popular for bathers and dog-walkers)</li> <li>○ Obtain official / informal trail mapping if possible.</li> </ul> </li> </ul>	Info

\*The preceding is the writer's interpretation of the proceedings and any discrepancies and/or omissions should be reported to the writer within 3 days of receipt.

**MEETING NOTES**

Subject: CVEx Landscape Plan: Project Meeting #2  
Meeting Date: July 13, 2020  
File: 003023.0013.01  
Page: 3 of 3



**URBAN SYSTEMS LTD.**

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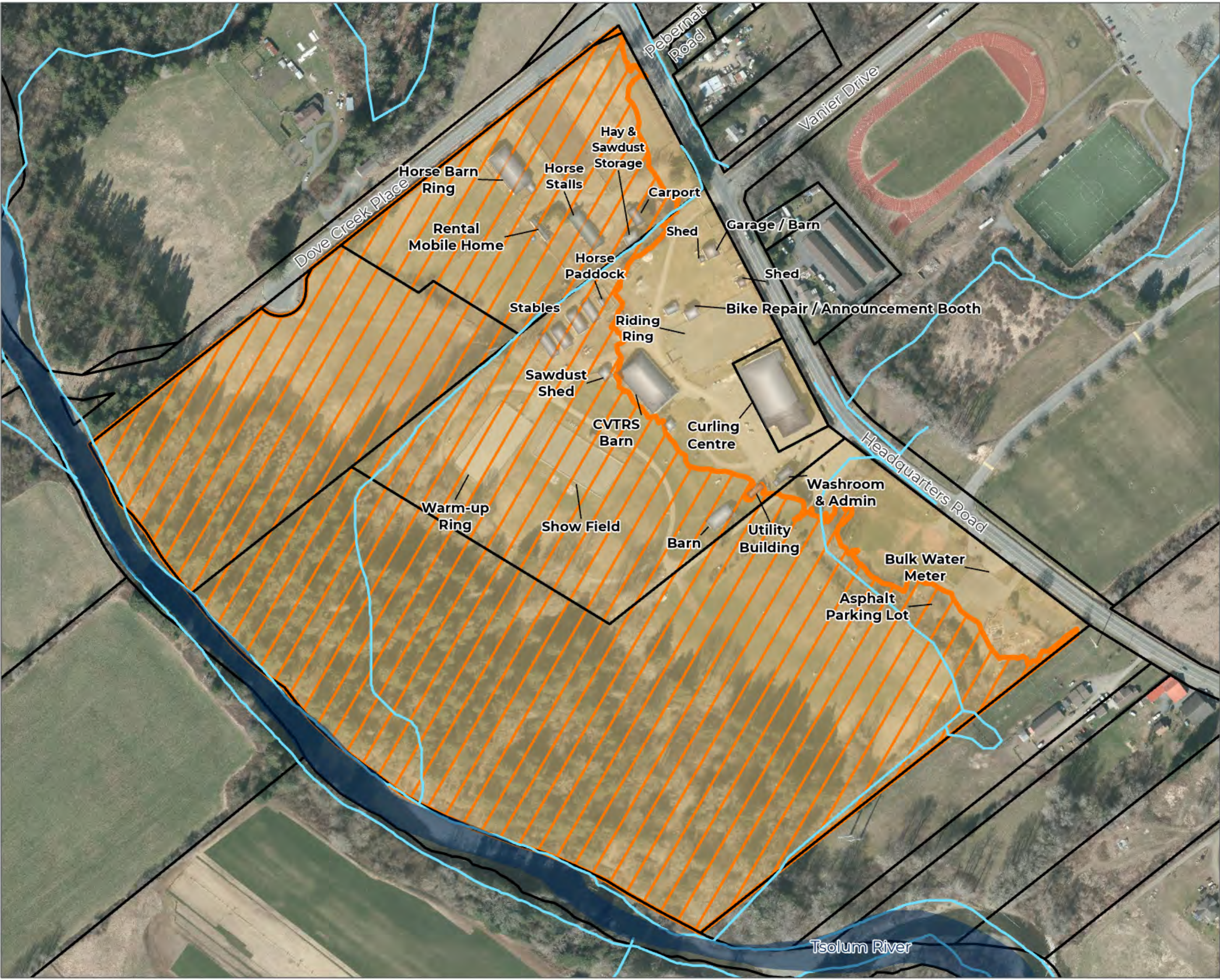
Phil Rinn, MBCSLA  
Project Lead

cc: All Attendees  
Jennifer Zbinden, Comox Valley Regional District ([jzbinden@comoxvalleyrd.ca](mailto:jzbinden@comoxvalleyrd.ca))  
Rachel Howes, Urban Systems ([rhowes@urbansystems.ca](mailto:rhowes@urbansystems.ca))  
Devon Phillips, Urban Systems ([dphillips@urbansystems.ca](mailto:dphillips@urbansystems.ca))  
Eric Sears, Urban Systems ([esears@urbansystems.ca](mailto:esears@urbansystems.ca))  
Michael Vorhies, Urban Systems ([mvorhies@urbansystems.ca](mailto:mvorhies@urbansystems.ca))

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**Comox Valley Regional District**  
**Comox Valley Exhibition Grounds:**  
**Landscape Plan**

**Site Plan**

**Legend**

-  Subject Site
-  Parcel Boundaries
-  Building Footprints
-  200 Year Floodplain
-  Streams

**Notes:**

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



**Coordinate System:** NAD 1983 UTM Zone 10N  
**Scale:** 1:3,000 (When plotted at 11"x17")

**Data Sources:**  
 - Data retrieved from the Comox Valley Regional District, City of Courtenay, and Data BC.

Project #: 3023.0013.01  
 Author: OS  
 Checked: PR / CJ  
 Status: **FINAL**  
 Revision: A  
 Date: 2021 / 6 / 23

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**FIGURE 1.1**

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# MEETING NOTES

Subject: **CVEx Landscape Plan: Programming Workshop**  
 Meeting Date: August 20, 2020  
 Time: 1:30pm- 3:30pm  
 Location: On-site  
 File: 3023.0013.01

## ATTENDEES

Mike Morrissey  
 Jennifer Zbinden  
 Beth Hurford  
 Phil Rinn  
 Michael Vorhies

## COMPANY

Comox Valley Regional District  
 CVRD  
 Urban Systems  
 Urban Systems  
 Urban Systems

## EMAIL

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[jzbinden@comoxvalleyrd.ca](mailto:jzbinden@comoxvalleyrd.ca)  
[bhurford@urbansystems.ca](mailto:bhurford@urbansystems.ca)  
[prinn@urbansystems.ca](mailto:prinn@urbansystems.ca)  
[mvorhies@urbansystems.ca](mailto:mvorhies@urbansystems.ca)

<u>ITEM</u>	<u>DISCUSSION</u>
1	<p><b>Project Update and Data Confirmation</b></p> <ul style="list-style-type: none"> <li>Phil provides general progress update. Technical background memos delivered to date (mobility, environmental, site servicing) will be included as appendices within the final report</li> <li>Mike recognizes there are gaps in the data (especially for the Stonehenge site), despite attempts by the Urban Systems team to reach out to several departments within the City of Courtenay and CVRD</li> <li>Group agrees that the unknown infrastructure and associated opportunities and constraints may influence the concept layout plans and recognizes the important of acquiring this information if available (see 'Servicing' section within the 'Memorandum Reviews' below)</li> <li>The City of Courtenay confirmed there are no site servicing cards for the 8-acre Stonehenge site</li> <li>Phil recommends contacting Yates, Thorn &amp; Associates to request CAD base used to create maps within 2017 Master Plan</li> </ul> <p><b>Action:</b> Mike (CVRD team) to follow-up with YTA to determine if this information is available</p>
2	<p><b>Memorandum Reviews</b></p> <p><u>Mobility</u></p> <ul style="list-style-type: none"> <li>Site should be planned to accommodate and encourage year-round activity (except for extreme weather events such as flooding or wind)</li> <li>There are perceived ownership and potential conflicts between user groups throughout the year (each group with competing ideas of priorities)</li> <li>Parking and mobility represent greatest need for change on the site (e.g. consider relocating Farmers Market to Stonehenge and/or Dove Creek Field to increase parking availability and reduce impacts on Headquarters Road)</li> </ul>

**MEETING NOTES**

Subject: CVEx Landscape Plan: Programming Workshop  
Meeting Date: August 20, 2020  
File: 3023.0013.01  
Page: 2 of 5



	<ul style="list-style-type: none"><li>• Mike and Jennifer recognize potential to improve safety for event attendees by providing adequate, safe, on-site parking</li><li>• Several multi-modal connections and plans (e.g. City of Courtenay, CVRD) identify future improvements along Headquarters Road, as well as future trail connections along the Tsolum River (connecting to existing trail network)</li><li>• Beth recommends a continuous pathway throughout the site from north to south to support site cohesion, safety, navigability, and general accessibility year round</li></ul> <p><b><u>Servicing</u></b></p> <p>The site servicing memo identifies gaps in the existing site data, particularly for the Stonehenge Farm site. It is recommended that CVRD considers a detailed site servicing review and/or site survey to confirm the existing infrastructure and potential constraints for Stonehenge that will inform next steps for planning/design</p> <p><b>Action:</b> Mike and Jennifer to confirm approach for obtaining site information for Stonehenge. Urban Systems to provide support as needed</p> <p><b><u>Environmental</u></b></p> <ul style="list-style-type: none"><li>• While there are several environmental features on the site (e.g. river floodplain, forest, fish-bearing stream), they should be manageable for the proposed uses and potential impacts. Memo provides significant background information to help guide the planning and design process.</li></ul>
<b>3</b>	<p><b>User Group and Event Priorities (from 2017 Master Plan)</b></p> <ul style="list-style-type: none"><li>• Group confirms relevance of previous plans and activities for current scope</li><li>• Desire for a year-round Farmers Market venue or other type of on-site accommodation (number of users likely to remain constant in the near future)</li><li>• Plans for a future Agriplex have been delayed and it should not be a focus of this work:<ul style="list-style-type: none"><li>○ The Farmers Institute has been asked to “downgrade” the proposed size of the Agriplex. The corner of the Stonehenge site was previously the preferred location, however others are being considered</li><li>○ Jennifer suggests this process move forward and that the Agriplex be revisited in 5-8 years time</li></ul></li><li>• Specific site and user group planning needs identified within the 2017 Master Plan will be considered in the current scope of work (Appendix D – Views of Public and Stakeholders).</li></ul>
<b>4</b>	<p><b>Key Program Elements/Amenities and Future Expansion Plans</b></p> <ul style="list-style-type: none"><li>• Goal for the discussion is to identify areas that would be suitable for new buildings and/or contribute to improvements (e.g. site access, drop off locations, etc.), while considering/accommodating future expansion opportunities</li><li>• Design for re-configuration of bulk water station is currently underway – may be an important consideration for relocation of main site access.</li></ul>

**MEETING NOTES**

Subject: CVEx Landscape Plan: Programming Workshop  
Meeting Date: August 20, 2020  
File: 3023.0013.01  
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	<p><u>Post-meeting note:</u> Mike has provided the current design drawings for the bulk water station. Functional and aesthetic improvements anticipated, with little to no impact on current footprint and/or site access.</p> <ul style="list-style-type: none"><li>Jennifer identifies washroom facilities as an important consideration (particularly accessible washroom facilities during events). She suggests some type of washroom facility lower on site to accommodate dog walkers, equestrians and their spectators, etc. as event users currently are required to access facilities away from these venues which may be a challenge (porta potties are not sufficient).</li><li>Mike mentions the arena areas experience flooding in the fall and would like to ensure this is not forgotten in the design</li><li>Mike identifies three facilities currently missing from this site: indoor arena, bulk water, and washroom facilities</li></ul>
<b>5</b>	<b>Establish /Confirm Project Vision and Principles</b> <ul style="list-style-type: none"><li>The group confirms the Design Principles identified within the 2002 Master Plan remain largely relevant, however consideration of Stonehenge Farm site should be included.</li></ul>
<b>6</b>	<b>Site Planning Exercise</b> <p>(see attached map mark-ups which capture key considerations)</p> <ul style="list-style-type: none"><li>Michael (Urban Systems) begins the mapping discussion live on screen. Final notes and comments from the discussion are included on the marked-up reference maps within this meeting note package (following pages). The following typed notes capture additional conversation that could not be captured visually:</li><li><u>Access:</u><ul style="list-style-type: none"><li>Phil raises opportunity to move main entrance from Curling Club, with potential to relocate to chained entrance off Headquarters Road (CVEG South Gate). Other option along Headquarters Road is the Vanier entrance (CVEG North Gate), as electrical connection and other services are already present.</li><li>Jennifer says access at Vanier Drive would be good to have – providing one unified recreational area together with the CVRD Sports Centre. There is also an obvious and significant need for one or more improved crossings for Headquarters Road.</li><li>Beth mentions recent or potential upcoming work to realign Vanier that may impact desirable access. This has not yet been confirmed. <b>Action: Beth to explore public information regarding rumored Vanier Drive realignment.</b></li><li>Mike asks about desirable alignment for continuous multi-use pathway through site; Beth recommends origins and destinations inform this placement.</li><li>Mike identifies trailhead parking at end of Dove Creek Road for access to Tsolum River trail network.</li></ul></li></ul>

**MEETING NOTES**

Subject: CVEx Landscape Plan: Programming Workshop  
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	<ul style="list-style-type: none"><li>• <u>Farmers Market:</u><ul style="list-style-type: none"><li>○ Jennifer expresses a need for the Farmers Market to be visible from Headquarters Road. Also, relocating to Dove Creek Field would minimize grazing opportunities from September – June.</li><li>○ Group explores Kin Hut Field as a potential site for Farmers Market, however issues during event overlap are a concern and can be problematic. It is often used by the Farmers Market in the spring due to ground saturation on usual Farmers Market site. However, the space is too small during main market season as the number of vendors increases. Again, a permanent spot for the Market is desirable. Adding a community kitchen or an educational venue of some type would also increase the usage of the site.</li></ul></li> <li>• <u>Equestrian and Dog Agility:</u><ul style="list-style-type: none"><li>○ Phil asks about the therapeutic riding arena usage. Mike mentions it is well used and a good venue during wet months, however the paddocks along Headquarters Road are not necessary and under-utilized</li><li>○ Phil asks about storage noting there are several ad-hoc storage locations for several groups throughout the site. He asks if a central, or purpose-built storage venue would be desirable</li><li>○ Mike says user groups do not pay for these storage opportunities and that relocating or providing storage elsewhere would result in less of an “eyesore”. He is open to relocating them and recommends that the report touches on future storage needs</li><li>○ Phil asks about dog agility area and what improvements might be required</li><li>○ Jennifer identifies a covered stage as desirable for this area and to ensure consideration is paid to the footing</li></ul></li></ul>
<b>7</b>	<b>Next Steps</b> <ul style="list-style-type: none"><li>• Concept development and graphic plans with wider consulting team will be the immediate next step. These concepts will then be distributed to Mike and Jennifer for review.</li><li>• In parallel to this concept process, information related to unknown characteristics of the Stonehenge site (e.g. infrastructure and servicing) can proceed, but should not delay the concept timeframe and approach.</li></ul>

*\*The preceding is the writer's interpretation of the proceedings and any discrepancies and/or omissions should be reported to the writer within 3 days of receipt.*

**MEETING NOTES**

Subject: CVEx Landscape Plan: Programming Workshop  
Meeting Date: August 20, 2020  
File: 3023.0013.01  
Page: 5 of 5



**URBAN SYSTEMS LTD.**

A handwritten signature in black ink, appearing to read "Phil Rinn".

Phil Rinn, MBCSLA  
Project Lead

cc: All Attendees  
Rachel Howes, Urban Systems ([rhowes@urbansystems.ca](mailto:rhowes@urbansystems.ca))  
Devon Phillips, Urban Systems ([dphillips@urbansystems.ca](mailto:dphillips@urbansystems.ca))  
Eric Sears, Urban Systems ([esears@urbansystems.ca](mailto:esears@urbansystems.ca))  
Owen Sieffert, Urban Systems ([osieffert@urbansystems.ca](mailto:osieffert@urbansystems.ca))

/pr

[file:///usl.urban-systems.com/projects/Projects\\_VIC/3023/0013/01/M-Meeting-Notes/2020-08-19\\_ProgrammingWorkshop/2020-08-20\\_CVEx\\_ProgrammingWorkshop\\_Notes.docx](file:///usl.urban-systems.com/projects/Projects_VIC/3023/0013/01/M-Meeting-Notes/2020-08-19_ProgrammingWorkshop/2020-08-20_CVEx_ProgrammingWorkshop_Notes.docx)



**Comox Valley Regional District**  
**Comox Valley Exhibition Grounds:**  
**Landscape Plan**  
**Site Access**  
**Base Map - All Layers**

- Legend**
- Subject Site
  - Parcels
  - Streams
  - Confirmed fish presence
  - Unknown fish presence
  - 200 Year Floodplain (20 m Buffer)
  - Stream Buffer (30m)
  - Ditch Buffer (6m)
  - Contours (0.5 m)
  - Stormwater
  - Ditches
  - Culverts
  - Sanitary
  - Gravity Mains
  - Lateral Lines
  - Water
  - Water Mains
  - Lateral Lines
  - Hydrants
  - Electrical
  - Streetlights
  - Stream Buffer (30m)

**Notes:**

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

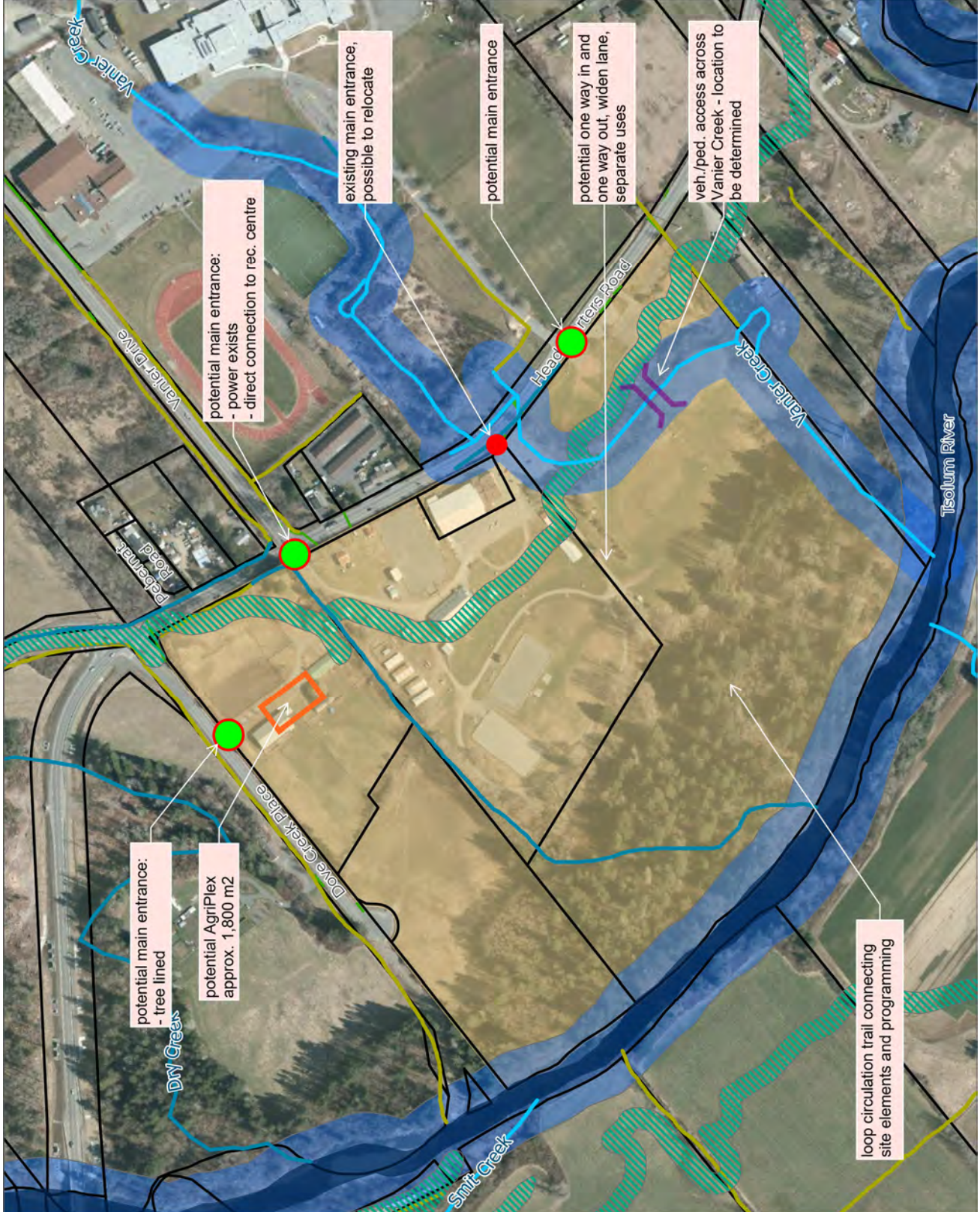
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 (When plotted at 111x177)

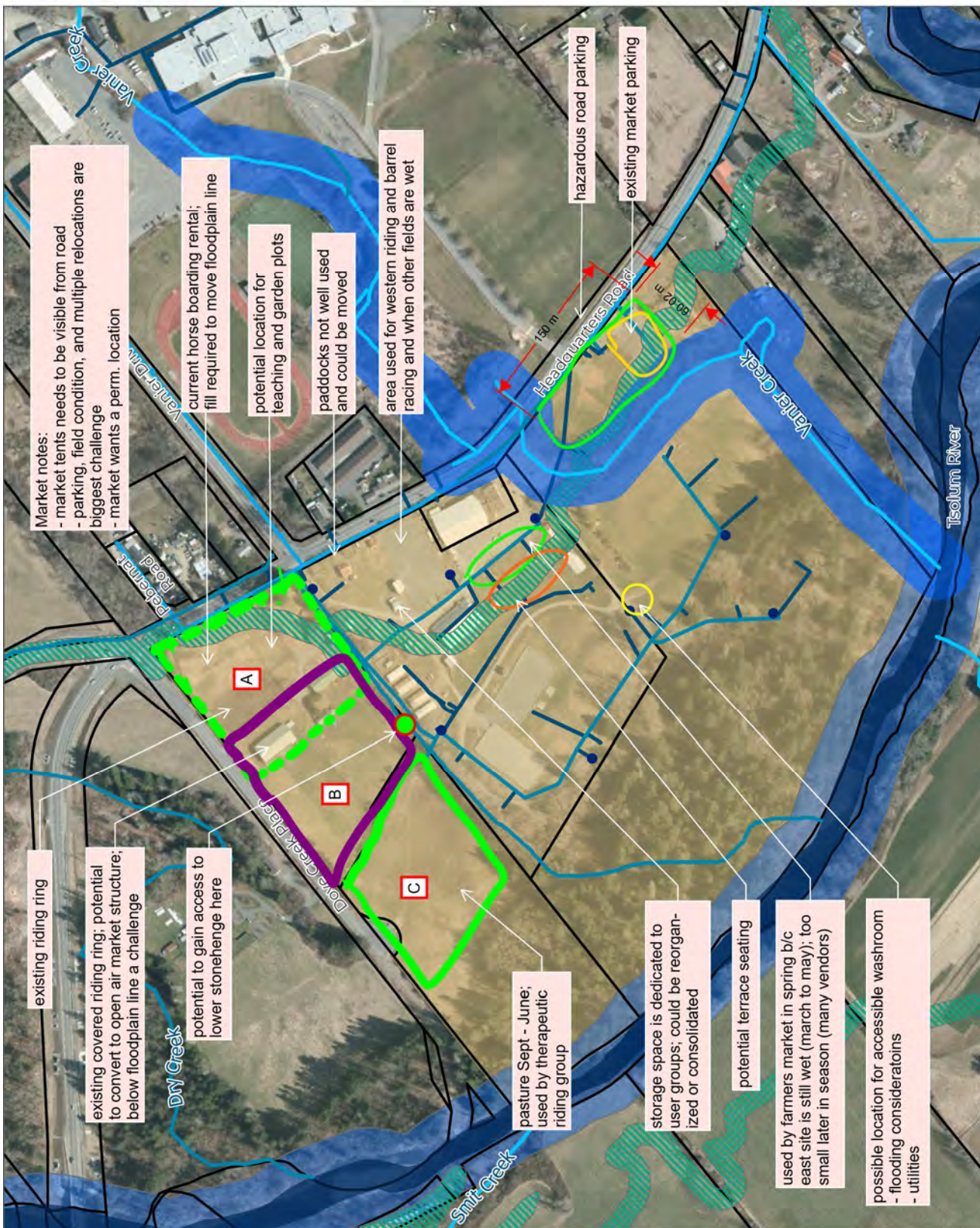
Coordinate System:  
 NAD 1983 UTM Zone 10N

Data Sources:  
 - Data retrieved from the Comox Valley Regional District, City of Courtenay, and Data BC.

Project #: 3023.0013.01  
 Author: OS  
 Checked: PR/ES  
 Status: DRAFT  
 Revision: A  
 Date: 2020/18/20

**URBAN**  
**S Y S T E M S**  
**FIGURE 1.1**





**Market notes:**  
 - market tents needs to be visible from road  
 - parking, field condition, and multiple relocations are biggest challenge  
 - market wants a perm. location

current horse boarding rental; fill required to move floodplain line

potential location for teaching and garden plots

paddocks not well used and could be moved

area used for western riding and barrel racing and when other fields are wet

hazardous road parking  
 existing market parking

existing riding ring  
 existing covered riding ring; potential to convert to open air market structure; below floodplain line a challenge

potential to gain access to lower stonehenge here

pasture Sept - June; used by therapeutic riding group

storage space is dedicated to user groups; could be reorganized or consolidated

potential terrace seating

used by farmers market in spring b/c east site is still wet (march to may); too small later in season (many vendors)

possible location for accessible washroom  
 - flooding considerations  
 - utilities

**Comox Valley Regional District**  
**Comox Valley Exhibition Grounds:**  
**Landscape Plan**  
**Market Location**  
**Base Map - All Layers**

- Legend**
- Subject Site
  - Parcels
  - Streams
  - Confirmed fish presence
  - Unknown fish presence
  - 200 Year Floodplain (20 m Buffer)
  - Stream Buffer (30m)
  - Ditch Buffer (6m)
  - Contours (0.5 m)
  - Stormwater
  - Ditches
  - Culverts
  - Sanitary
  - Sanitary
  - Gravelly Mains
  - Lateral Lines
  - Water
  - Water Mains
  - Lateral Lines
  - Hydrants
  - Electrical
  - Streetlights
  - Stream Buffer (30m)

**Notes:**

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



**Coordinate System:**  
 NAD 1983 UTM Zone 10N

**Data Sources:**  
 - Data retrieved from the Comox Valley Regional District, City of Courtenay, and Data BC.

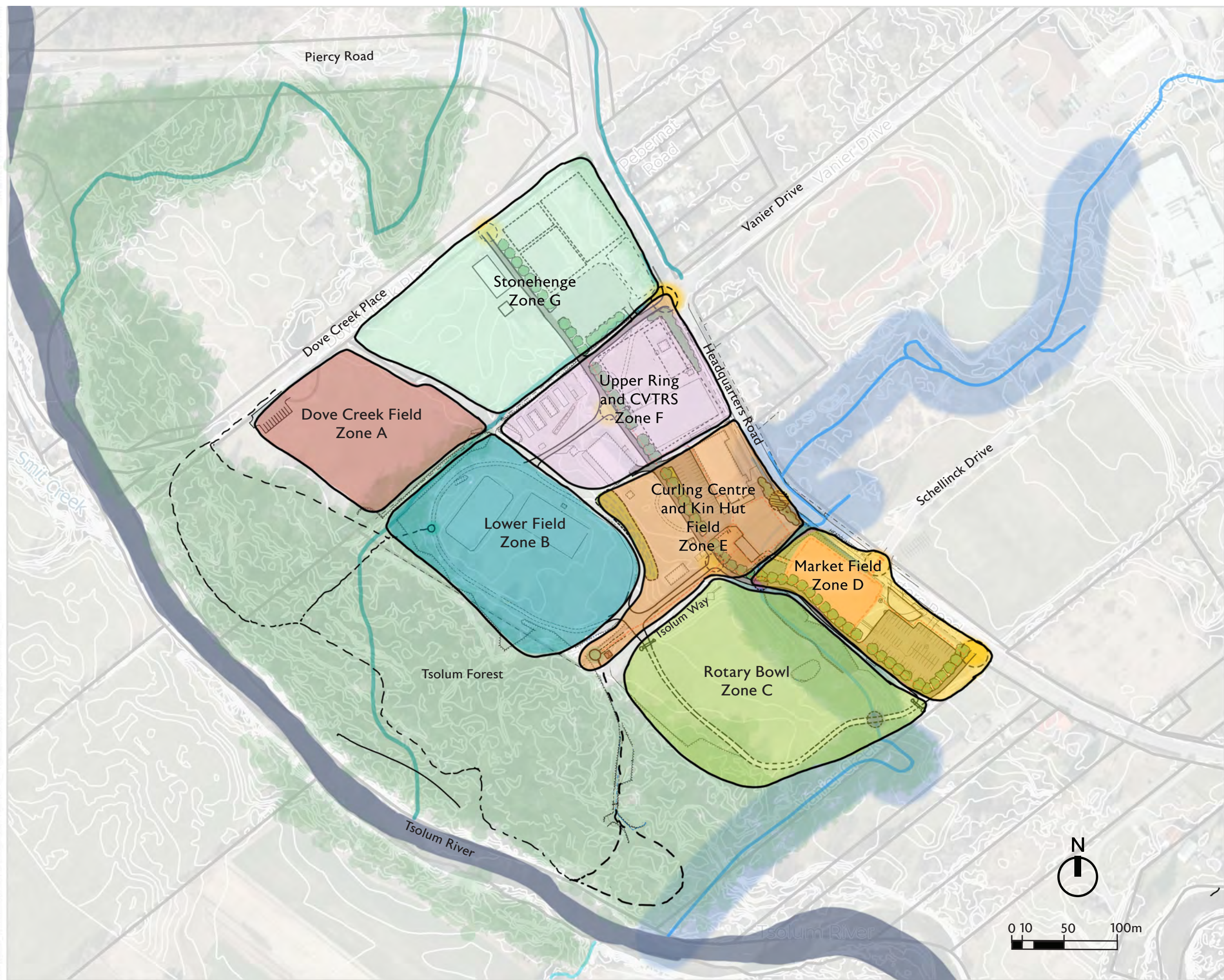
Project #:	3023.0013.01
Author:	CS
Checked:	PR / ES
Status:	DRAFT
Revision:	A
Date:	2020 / 8 / 20

**URBAN**  
**S Y S T E M S**  
**FIGURE 1.1**

The background of the entire page is a light gray, stylized map of a city street grid. The grid consists of various street patterns, including straight lines, curves, and dead ends. A prominent red rectangular box is overlaid on the left side of the page, containing the title text. The text is white and bold, with the word 'APPENDIX E' underlined.

# APPENDIX E

## Conceptual Site Plan Drawings & Cross Sections



Comox Valley  
Exhibition Grounds  
Master Plan - Zone  
Diagram

2021/06/23

**URBAN**  
systems



**LEGEND**

1. Proposed Main Entries
2. Proposed Secondary Entry
3. Relocated and Expanded Teaching and Education Plots
4. Proposed Covered Riding Ring
5. Relocated Upper Ring
6. Stonehenge Gravel Parking Lot
7. Horse Trailer Drop-off and Staging Area
8. Multi-modal Circulation Spine
9. Access Control Points
10. Consolidated Storage Area
11. Potential Future Development Area
12. Reconfigured Curling Club Parking
13. Urban Plaza - Flex for Expanded Farmers' Market/ Event Parking
14. Decommissioned Entry - Emergency and Events Access Only
15. Proposed Farmer's Market (approximately 110 stalls)
16. Proposed Pedestrian Crossing
17. Proposed Access Road w/ Stream Crossing
18. Reconfigured and Expanded Parking (58 Stalls)
19. Widened Access to Lower Field
20. Trailhead with Covered Shelter and Improved Washrooms and Bike Parking
21. Trailhead Parking (10 Stalls +/-)
22. Proposed Washrooms
23. Proposed Open Air Shelter
24. Retain Existing Driveway as Emergency Access Only
25. Amphitheatre Seating

— 200-year Floodplain Setback

**Comox Valley Exhibition  
Grounds  
Master Plan - Concept Plan**



2021/06/23





**LEGEND**

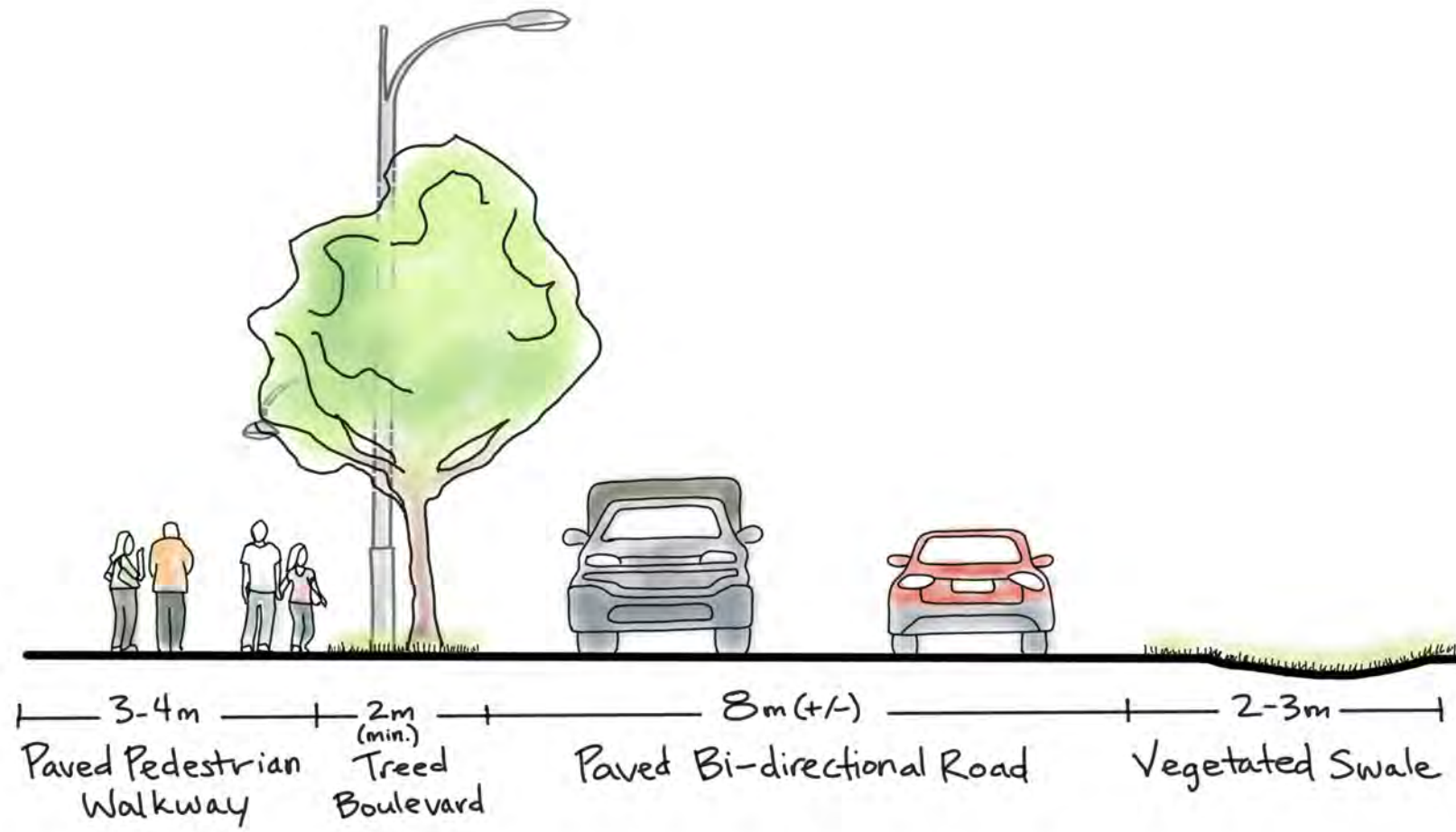
1. Tree Lined Main Spine Road
2. Reorganized Curling Club Parking
3. Enhanced Curling Club Entry Plaza and Drop-off Zone
4. Events Plaza and Logistics Centre with Washroom
5. Urban Plaza - Flex for Expanded Farmers' Market or Event Parking
6. Pedestrian Circulation (typ.)
7. Decommissioned Entry - Emergency and Events Access Only
8. Events Staging Area/Flex Parking
9. Farmers' Market (approximately 110 stalls)
10. Proposed Pedestrian Crossing

-  Pedestrian Circulation
-  200-year Floodplain Setback

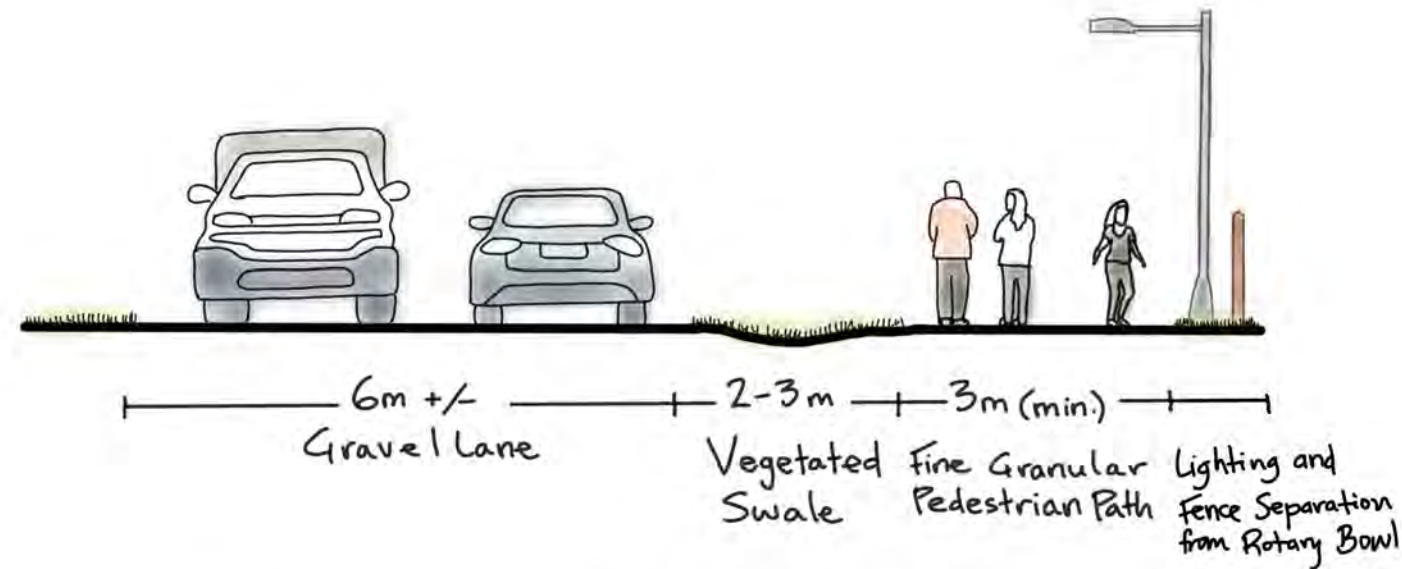
Comox Valley Exhibition  
 Grounds  
 Master Plan - Curling  
 Centre Enlargement

2021/06/23





Main Spine Road - Proposed Section (typ.)



Secondary Road - Proposed Section (typ.)

The background of the page is a light gray map of a city street grid. A solid red rectangular box is positioned in the upper left quadrant, containing the text. The text is white and consists of a main title and a subtitle.

# **APPENDIX F**

## **Preliminary Cost Estimate**



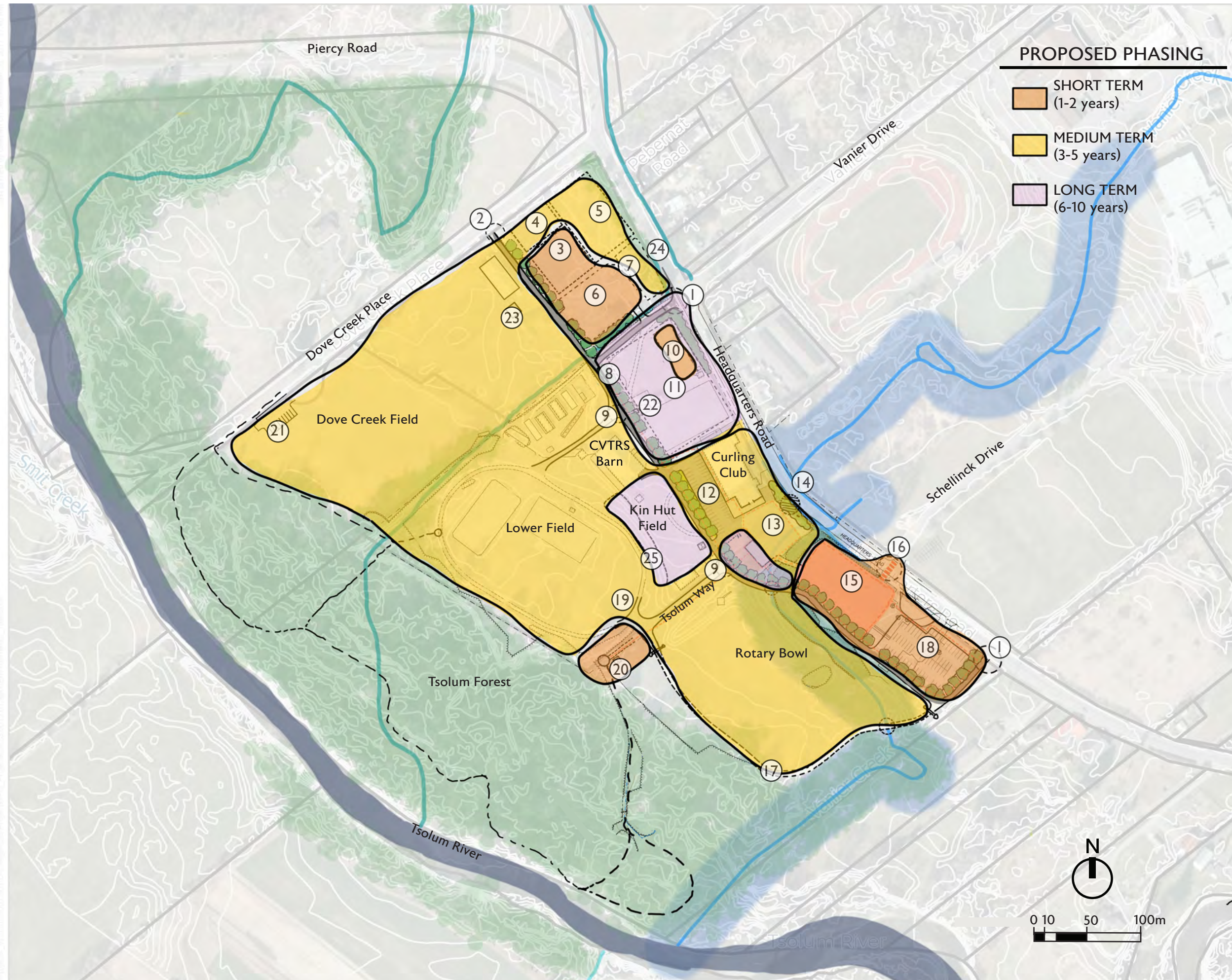
Item	Description of Work	Unit of Measure	Quantity	Unit Price	Total	
<b>Roads and Multi-Use Pathways</b>						
R1	Main Spine Road	m	800	\$ 1,700	\$ 1,360,000	8m wide bi-directional paved road w/ street lighting, 4m wide paved multi-use pathway, treed boulevard and vegetated swale, incl. stream crossing
R2	Secondary Road - Tsolum Way	m	100	\$ 1,000	\$ 100,000	6m wide bi-directional gravel lane w/ 3m wide granular pathway, pedestrian lighting and vegetated swale (redevelopment of existing lane)
R3	Map Kiosk and Wayfinding Signage (property-wide, incl. Tsolum Trails)	ls	1	\$ 50,000	\$ 50,000	Allowance for set signage, some budget to be allocated for event specific/mobile wayfinding
<b>Zone A - Dove Creek Field</b>						
A1	Trailhead Parking (10 stalls)	ls	1	\$ 59,000	\$ 59,000	Gravel surface incl. base prep., hammerhead turnaround and signage
A2	Grading / Drainage Improvements	ls	1	\$ 20,000	\$ 20,000	Allowance
<b>Zone B - Lower Field</b>						
B1	Widened Road Access to Lower Field	ls	1	\$ 10,000	\$ 10,000	Allowance
<b>Zone C - Rotary Bowl</b>						
C1	Maintenance / Emergency Access Lane	m	360	\$ 400	\$ 144,000	6m bi-directional gravel lane, incl. stream crossing
C2	Stream Crossing Allowance	ls	1	\$ 15,000	\$ 15,000	Assume culvert crossing
C3	Access Road Gates	ea.	2	\$ 6,000	\$ 12,000	Steel access gate
<b>Zone D - Market Field</b>						
D1	Reconfigured and Expanded Asphalt Parking	ls	1	\$ 303,000	\$ 303,000	Includes overhead lighting, signage, line painting, curb stops, signage, etc. (excludes islands)
D2	New Main Entry Road Access from Headquarters Road	ls	1	\$ 50,000	\$ 50,000	Includes widened road at intersection, signage, medians, crosswalk, etc.
D3	<b>Farmers' Market Vendor Area</b> (approx. 110 stalls)					
D3.1	Clearing/Grading	ls	1	\$ 50,000	\$ 50,000	Allowance
D3.2	Power	ls	1	\$ 175,000	\$ 175,000	Allowance for 5 new kiosks, including: electrical kiosk purchase and installation, conduit and trenching, new concrete pad, minor electrical connection
D3.3	Porous Grass Pavers	m2	1,300	\$ 65	\$ 84,500	Approx. 1/3 of total vendor area to be grass paved (e.g. high traffic areas)
D3.4	Structural Sand Based Soil	m2	2,600	\$ 28	\$ 72,800	Approx. 2/3 of total vendor area to be structural sand based soil
D3.5	Perimeter Walkway	m2	750	\$ 42	\$ 32,000	3m granular path connecting the proposed Main Entry on Headquarters Road, the proposed crosswalk and the connection to the Curling Club Parking Lot
D3.6	Site Drainage Improvements	ls	1	\$ 50,000	\$ 50,000	Allowance for subgrade drains or localized rock pits
<b>Zone E - Curling Centre and Kin Hut Field</b>						
E1	Urban Plaza - Flex for Expanded Farmers Market/Event Parking	ls	1	\$ 213,000	\$ 213,000	Asphalt surface with 4m wide paver path lining the perimeter (w/ simple barrier)
E2	Decommissioned Headquarters Road Access at Curling Club - Emergency and Events	ls	1	\$ 25,000	\$ 25,000	Allowance includes \$6k gate, landscaping, signage, etc.
E3	Reconfigured and Repaved Curling Club Asphalt Parking	ls	1	\$ 256,000	\$ 256,000	Includes repaving construction and allowance for lighting, parking lot landscaping, and signage
E4	Enhanced Curling Club Entry Plaza and Drop-off Zone	ls	1	\$ 50,000	\$ 50,000	Allowance includes site furnishing, pedestrian/traffic separators, etc.
E5	Events Plaza and Logistics Centre with Washroom	ls	1	\$ 250,000	\$ 250,000	Includes paved plaza and lighting
E6	Pedestrian Connection from Curling Club main entry to CVTRS barn	m2	225	\$ 120	\$ 37,000	Concrete; 2.5m width
E7	Amphitheatre	ls	1	\$ 90,000	\$ 90,000	Assumes 4 seat walls, 28m in length at \$800/lin.m
E8	<b>Trailhead</b>					
E8.1	Covered Shelter with Picnic Tables and Bike Parking	ls	1	\$ 40,000	\$ 40,000	Assume covered shelter with concrete slab, 2 picnic tables, inverted-u bike racks
E8.2	Replace Existing Washrooms	ls	1	\$ 50,000	\$ 50,000	Pit toilet with concrete vault (see Optional Items)
E8.3	Access Control Point	ls	1	\$ 10,000	\$ 10,000	Includes gate and crosswalk

<b>Zone F - Upper Ring and CVTRS</b>						
F1	Consolidated Storage Area	ls	1	\$ 58,000	\$ 58,000	Includes fencing, 2 vehicle gates, gravel lot
F2	Upgraded Main Entry Road Access from Headquarters Road	ls	1	\$ 50,000	\$ 50,000	Located at Vanier Drive intersection
F3	Access Control Point	ls	1	\$ 10,000	\$ 10,000	Includes gate and crosswalk
F4	New Washrooms	ls	1	\$ 50,000	\$ 50,000	Pit toilet with concrete vault and lighting (see Optional Items)
<b>Zone G - Stonehenge</b>						
G1	Retain/Upgrade Existing Driveway (as emergency access only)	ls	1	\$ 10,000	\$ 10,000	Allowance for upgrading existing driveway to an emergency access point only
G2	Horse Trailer Drop-off and Staging Area	m2	1,000	\$ 62	\$ 62,000	Gravel parking lot for horse trailers
G3	Stonehenge Gravel Parking Lot	m2	4,000	\$ 62	\$ 246,000	Includes site preparation, gravel lot base and subbase
G4	Relocated Upper Ring	ls	1	\$ 90,000	\$ 90,000	100 ft x 60 ft ring, allowance for footing and fencing costs only
G5	Covered Riding Ring	ls	1	\$ 180,000	\$ 180,000	100 ft x 60 ft covered riding ring, allowance for footing and fencing costs only
G6	Upgraded Secondary Entry Access from Dove Creek Place	ls	1	\$ 30,000	\$ 30,000	2-way access that accommodates large/long trailers, includes allowance for signage, cedar fencing, basic landscaping
G7	Relocated and Expanded Teaching and Education Plots	ls	1	\$ 50,000	\$ 50,000	Allowance for site furnishings (shed, picnic tables), fencing, water servicing, onsite topsoil relocation and placement, tilling and potential soil amendment
G8	Open Air Shelter	ls	1	\$ 150,000	\$ 150,000	12m x 10m covered shelter
<b>Sub-Total (On-site Infrastructure)</b>					<b>\$ 4,594,300</b>	
<b>Planning, Design and Contingency</b>						
P1	Site Survey (e.g. Stonehenge), Investigations (e.g. geotechnical), Permitting (e.g. environmental)				\$ 50,000	Allowance for Geotechnical, Environmental and other permitting
P2	Soft Costs - Planning and Design Services (15%)				\$ 689,000	
P3	Contingency (30%)				\$ 1,600,000	
<b>TOTAL (Capital and Soft Costs)</b>					<b>\$ 6,933,300</b>	
<b>Off-Site Improvements (by others)</b>						
OS1	Headquarters Road Crosswalk	l.s.	1	\$ 50,000	\$ 50,000	Allowance for thermoplastic sidewalk complete with overhead flashers and signage
<b>Sub-Total (Off-Site Costs)</b>					<b>\$ 50,000</b>	
<b>Optional Items</b>						
E8.2A	Improved Washroom with Water and Electrical Service	l.s.	1	\$ 200,000	\$ 200,000	Allowance for higher level of service washrooms which could include power and water connections, building and septic holding tank
<p>Notes:</p> <p>1. This cost estimate does <u>not</u> include costs for the construction or renovation of buildings, costs associated with the 'future development area' within Zone F (Upper Ring and CVTRS).</p> <p>2. This cost estimate does <u>not</u> include any allowance for underground irrigation.</p> <p>3. This cost estimate should be read in conjunction with Urban Systems' Exhibition Grounds Conceptual Site Plan, Zone Diagram, and Road Section drawings.</p>						
<b>Cost Estimate Summary (by Zone)</b>						
	Roads and Multi-use Pathways			\$	1,510,000	
	Zone A: Dove Creek Field			\$	79,000	
	Zone B: Lower Field			\$	10,000	
	Zone C: Rotary Bowl			\$	171,000	
	Zone D: Market Field			\$	817,300	
	Zone E: Curling Centre and Kin Hut Field			\$	1,021,000	
	Zone F: Upper Ring and CVTS			\$	168,000	
	Zone G: Stonehenge			\$	818,000	
	<b>Subtotal</b>			<b>\$</b>	<b>4,594,300</b>	
	Site Survey, Investigations, Permitting and Soft Costs			\$	739,000	
	Contingency (30%)			\$	1,600,000	
	<b>Total</b>			<b>\$</b>	<b>6,933,300</b>	



# **APPENDIX G**

## **Implementation Phasing & Costs**



**PROPOSED PHASING**

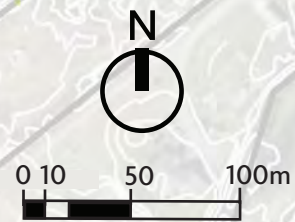
- SHORT TERM  
(1-2 years)
- MEDIUM TERM  
(3-5 years)
- LONG TERM  
(6-10 years)

**LEGEND**

1. Proposed Main Entries
2. Proposed Secondary Entry
3. Relocated and Expanded Teaching and Education Plots
4. Proposed Covered Riding Ring
5. Relocated Upper Ring
6. Stonehenge Gravel Parking Lot
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9. Access Control Points
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19. Widened Access to Lower Field
20. Trailhead with Covered Shelter and Improved Washrooms and Bike Parking
21. Trailhead Parking (10 Stalls +/-)
22. Proposed Washrooms
23. Proposed Open Air Shelter
24. Retain Existing Driveway as Emergency Access Only
25. Amphitheatre Seating

**Comox Valley Exhibition Grounds  
Master Plan - Implementation  
Phasing**

2021/06/23





**Comox Valley Exhibition Grounds Master Plan**  
 CLASS 'D' COST ESTIMATE  
 10 YEAR IMPLEMENTATION PLAN

Prepared by: Cassidy Jackson  
 Checked by: Phil Rinn

June 14, 2021  
 3023.0013.01

Short Term (Year 1-2)			
Item	Description of Work	Total	Comments
<b>Roads and Multi-Use Pathways</b>			
R1	Main Spine Road	\$ 247,000	8m wide bi-directional paved road w/ street lighting, 4m wide paved multi-use pathway, treed boulevard and vegetated swale, incl. stream crossing
R3	Map Kiosk and Wayfinding Signage (property-wide, incl. Tsolum Trails)	\$ 50,000	Allowance for set signage, some budget to be allocated for event specific/mobile wayfinding
<b>Zone D - Market Field</b>			
D1	Reconfigured and Expanded Asphalt Parking	\$ 303,000	Includes overhead lighting, signage, line painting, curb stops, signage, etc. (excludes islands)
D2	New Main Entry Road Access from Headquarters Road	\$ 50,000	Includes widened road at intersection, signage, medians, crosswalk, etc.
D3	<b>Farmers' Market Vendor Area</b> (approx. 110 stalls)	\$ -	
D3.1	Clearing/Grading	\$ 50,000	Allowance
D3.2	Power	\$ 175,000	Allowance for power connection and power access at new stalls by the installation of 5 new kiosks
D3.3	Porous Grass Pavers (e.g. Grasspave2 by Invisible Structures)	\$ 84,500	Approx. 1/3 of total vendor area to be grass paved (e.g. high traffic areas)
D3.4	Structural Sand Based Soil	\$ 72,800	Approx. 2/3 of total vendor area to be structural sand based soil
D3.5	Perimeter Walkway	\$ 32,000	3m granular path connecting the proposed Main Entry on Headquarters Road, the proposed crosswalk and the connection to the Curling Club Parking Lot
D3.6	Site Drainage Improvements	\$ 50,000	Allowance for subgrade drains or localized rock pits
<b>Zone E - Curling Centre and Kin Hut Field</b>			
E8	<b>Trailhead</b>		
E8.1	Covered Shelter with Picnic Tables and Bike Parking	\$ 40,000	Assume covered shelter with concrete slab, 2 picnic tables, inverted-u bike racks
E8.2	Replace Existing Washrooms	\$ 50,000	Pit toilet with concrete vault (see Optional Items)
<b>Zone F - Upper Ring and CVTRS</b>			
F1	Consolidated Storage Area	\$ 58,000	Includes fencing, 2 vehicle gates, gravel lot

<b>Zone G - Stonehenge</b>			
G3	Stonehenge Gravel Parking Lot	\$ 246,000	Includes site preparation, gravel lot base and subbase
G7	Relocated and Expanded Teaching and Education Plots	\$ 180,000	allowance for tilling and soil amendment
<b>Sub-Total (On-site Infrastructure)</b>		<b>\$ 1,688,300</b>	
<b>Off-site Improvements (by others)</b>			
OS1	Headquarters Road Crosswalk	\$ 50,000	Allowance for thermoplastic sidewalk complete with overhead flashers and signage
<b>Sub-Total (Off-Site Costs)</b>		<b>\$ 50,000</b>	
<b>Planning, Design and Contingency</b>			
P1	Site Survey (e.g. Stonehenge), Investigations (e.g. geotechnical), Permitting (e.g. environmental)	\$ 30,000	Allowance for Geotechnical, Environmental and other permitting
P2	Soft Costs - Planning and Design Services (15%)	\$ 261,000	
P3	Contingency (30%)	\$ 609,000	
<b>TOTAL (Capital and Soft Costs)</b>		<b>\$ 2,638,300</b>	
<b>Optional Items</b>			
E8.2A	Improved Washroom with Water and Electrical Service	\$ 200,000	Allowance for higher level of service washrooms which could include power and water connections, building and septic holding tank

<b>Short Term (Year 1-2) Summary by Zone</b>			
	Roads and Multi-use Pathways	\$ 297,000	
	Zone A: Dove Creek Field	\$ -	
	Zone B: Lower Field	\$ -	
	Zone C: Rotary Bowl	\$ -	
	Zone D: Market Field	\$ 817,300	
	Zone E: Curling Centre and Kin Hut Field	\$ 90,000	
	Zone F: Upper Ring and CVTS	\$ 58,000	
	Zone G: Stonehenge	\$ 426,000	
	<b>Subtotal</b>	<b>\$ 1,688,300</b>	
	Off-site Improvements	\$ 50,000	
	Site Survey, Investigations, Permitting and Soft Costs	\$ 291,000	
	Contingency (30%)	\$ 609,000	
	<b>Total</b>	<b>\$ 2,638,300</b>	

Medium Term (Year 3-5)			
Item	Description of Work	Total	
<b>Roads and Multi-Use Pathways</b>			
R1	Main Spine Road	\$ 926,000	8m wide bi-directional paved road w/ street lighting, 4m wide paved multi-use pathway, treed boulevard and vegetated swale, incl. stream crossing
R2	Secondary Road - Tsolum Way	\$ 100,000	6m wide bi-directional gravel lane w/ 3m wide granular pathway, pedestrian lighting and vegetated swale (redevelopment of existing lane)
<b>Zone A - Dove Creek Field</b>			
A1	Trailhead Parking (10 stalls)	\$ 59,000	Gravel surface incl. base prep., hammerhead turnaround and signage
A2	Grading / Drainage Improvements	\$ 20,000	Allowance
<b>Zone B - Lower Field</b>			
B1	Widened Road Access to Lower Field	\$ 10,000	Allowance
<b>Zone C - Rotary Bowl</b>			
C1	Maintenance / Emergency Access Lane	\$ 144,000	6m bi-directional gravel lane, incl. stream crossing
C2	Stream Crossing Allowance	\$ 15,000	Assume culvert crossing
C3	Access Road Gates	\$ 12,000	Steel access gate
<b>Zone E - Curling Centre and Kin Hut Field</b>			
E1	Urban Plaza - Flex for Expanded Farmers Market/Event Parking	\$ 213,000	Asphalt surface with 4m wide paver path lining the perimeter (w/ simple barrier)
E2	Decommissioned Headquarters Road Access at Curling Club - Eme	\$ 25,000	Allowance includes \$6k gate, landscaping, signage, etc.
E3	Reconfigured and Repaved Curling Club Asphalt Parking	\$ 256,000	Includes repaving construction and allowance for lighting, parking lot landscaping, and signage
E4	Enhanced Curling Club Entry Plaza and Drop-off Zone	\$ 50,000	Allowance includes site furnishing, pedestrian/traffic separators, etc.
E6	Pedestrian Connection from Curling Club main entry to CVTRS bar	\$ 37,000	Concrete; 2.5m width
<b>Zone F - Upper Ring and CVTRS</b>			
F3	Access Control Point	\$ 10,000	Includes gate and crosswalk

<b>Zone G - Stonehenge</b>			
G1	Retain/Upgrade Existing Driveway (as emergency access only)	\$ 10,000	Allowance for upgrading existing driveway to an emergency access point only
G2	Horse Trailer Drop-off and Staging Area	\$ 62,000	Gravel parking lot for horse trailers
G4	Relocated Upper Ring	\$ 90,000	100 ft x 60 ft ring, allowance for footing and fencing costs only
G5	Covered Riding Ring	\$ 180,000	100 ft x 60 ft covered riding ring, allowance for footing and fencing costs only
G6	Upgraded Secondary Entry Access from Dove Creek Place	\$ 30,000	2-way access that accommodates large/long trailers, includes allowance for signage, cedar fencing, basic landscaping
G8	Open Air Shelter	\$ 150,000	12m x 10m covered shelter
<b>Sub-Total (On-site Infrastructure)</b>		<b>\$ 2,399,000</b>	
<b>Planning, Design and Contingency</b>			
P1	Site Survey (e.g. Stonehenge), Investigations (e.g. geotechnical), Permitting (e.g. environmental)	\$ 10,000	Allowance for Geotechnical, Environmental and other permitting
P2	Soft Costs - Planning and Design Services (15%)	\$ 360,000	
P3	Contingency (30%)	\$ 831,000	
<b>TOTAL (Capital and Soft Costs)</b>		<b>\$ 3,600,000</b>	

<b>Mid Term (Year 3-5) Summary by Zone</b>			
	Roads and Multi-use Pathways	\$ 1,026,000	
	Zone A: Dove Creek Field	\$ 79,000	
	Zone B: Lower Field	\$ 10,000	
	Zone C: Rotary Bowl	\$ 171,000	
	Zone D: Market Field	\$ -	
	Zone E: Curling Centre and Kin Hut Field	\$ 581,000	
	Zone F: Upper Ring and CVTS	\$ 10,000	
	Zone G: Stonehenge	\$ 522,000	
	<b>Subtotal</b>	<b>\$ 2,399,000</b>	
	Site Survey, Investigations, Permitting and Soft Costs	\$ 370,000	
	Contingency (30%)	\$ 831,000	
	<b>Total</b>	<b>\$ 3,600,000</b>	



Long Term (Year 6-10)			
Item	Description of Work	Total	
<b>Roads and Multi-Use Pathways</b>			
R1	Main Spine Road	\$ 187,000	8m wide bi-directional paved road w/ street lighting, 4m wide paved multi-use pathway, treed boulevard and vegetated swale, incl. stream crossing
<b>Zone E - Curling Centre and Kin Hut Field</b>			
E5	Events Plaza and Logistics Centre with Washroom	\$ 250,000	Includes paved plaza and lighting
E7	Amphitheatre	\$ 90,000	Assumes 4 seat walls, 28m in length at \$800/lin.m
<b>Zone F - Upper Ring and CVTRS</b>			
F2	Upgraded Main Entry Road Access from Headquarters Road	\$ 50,000	Located at Vanier Drive intersection
F4	New Washrooms	\$ 50,000	Pit toilet with concrete vault and lighting (see Optional Items)
<b>Sub-Total (On-site Infrastructure)</b>		<b>\$ 627,000</b>	
<b>Planning, Design and Contingency</b>			
P1	Site Survey (e.g. Stonehenge), Investigations (e.g. geotechnical), Permitting (e.g. environmental)	\$ 10,000	Allowance for Geotechnical, Environmental and other permitting
P2	Soft Costs - Planning and Design Services (15%)	\$ 94,000	
P3	Contingency (30%)	\$ 219,000	
<b>TOTAL (Capital and Soft Costs)</b>		<b>\$ 950,000</b>	
<b>Optional Items</b>			
E8.2A	Improved Washroom with Water and Electrical Service	\$ 200,000	Allowance for higher level of service washrooms which could include power and water connections, building and septic holding tank
<b>Long Term (Year 6-10) Summary by Zone</b>			
	Roads and Multi-use Pathways	\$ 187,000	
	Zone A: Dove Creek Field	\$ -	
	Zone B: Lower Field	\$ -	
	Zone C: Rotary Bowl	\$ -	
	Zone D: Market Field	\$ -	
	Zone E: Curling Centre and Kin Hut Field	\$ 340,000	
	Zone F: Upper Ring and CVTS	\$ 100,000	
	Zone G: Stonehenge	\$ -	
	<b>Subtotal</b>	<b>\$ 627,000</b>	
	Site Survey, Investigations, Permitting and Soft Costs	\$ 104,000	
	Contingency (30%)	\$ 219,000	
	<b>Total</b>	<b>\$ 950,000</b>	