

AGENDA
SPECIAL MEETING OF MUNICIPAL COUNCIL
Via TELE & VIDEO CONFERENCE

Tuesday, May 12, 2020 – 9:00 a.m.

- 1. CALL TO ORDER**
- 2. APPROVAL OF AGENDA**
- 3. AWARDING OF TENDERS/RFPs**
 - 3.1 Award of RFP #2020-05-401 River Ridge Bike Skills Park 1-30
- 4. STAFF REPORTS**
 - 4.1 Finance Department**
 - 4.1.1 MDL-46 Credit Card Policy – Proposed Amendments..... 31-40
 - 4.1.2 Resolution re BMO Credit Facilities 41-43
 - 4.2 Administration Department**
 - 4.2.1 2020 PCAP and FRIIP Funding..... 44-45
 - 4.3 Planning & Development Department**
 - 4.3.1 Amendment to Policy MDL-88 Areas Where New Public Roads are Permitted & Repeal of Policies MDL-24 A By-law Respecting the Subdivision of Land in the Mun. of Lun. – Amendments by Policy and Policy MDL-25 Policy to Amend Engineering Specifications for Public Highways 46-76
- 5. IN CAMERA**
 - 5.1 Contract Negotiations re LaHave Straight Pipe Appeal under Section 22(2)(e) of the MGA
- 6. ADJOURNMENT**



Municipality of the District of Lunenburg

REQUEST FOR DECISION

REPORT TO: Council

SUBMITTED BY: Tissy Bolivar, Acting Director of Recreation Services

DATE: May 12, 2020

RE: RFP No. 2020-05-401 Bike Skills Park: Part 1
River Ridge Common

RECOMMENDATION

That Council for the Municipality of the District of Lunenburg award RFP No. 2020-05-401 for the design and construction of the River Ridge Common Bike Skills Park and warmup zone to Trailflow Outdoor Adventures for \$41,360 plus HST.

EXECUTIVE SUMMARY

River Ridge Common is a multi-year, phased development of various park components on a 115-acre property, divided by the South Shore Annapolis Valley (rail) Trail into 2 distinct parcels. The 100-acre Upper Park area is a former woodlot, to the north of the rail trail. The 15-acre Lower Park is a former gravel pit situated between Highway 10 and the rail trail and is the primary focus of the work described in this recommendation. To date, a portion of the Lower Park has been converted into a natural play and land art area.

The work entailed in this RFP will add a mountain bike skills area to help build confidence and abilities and a warmup zone for users of the mountain bike trails. Details of these proposed facilities are attached.

The proposed skills and warmup area are a priority installation for the River Ridge Common Park for added play value to the site while respecting the naturalized feel of the onsite park. These features are to be constructed from wood, soil and gravel, inviting users of all ages and abilities. They are meant to enhance the site and the existing features, including the existing bike trails, play areas and connecting paths.

Having these new features on site will be welcomed by park users and have been anticipated as an important park of the overall sight design and use.

All work intended for River Ridge Common is from the original Concept Plan for the site. Work is expected to be completed for the additional playground features by the end of October 2020. Covid-19 restrictions may affect the completion date.

DISCUSSION

An RFP was prepared by staff following our procurement policy. It was posted on the Provincial procurement website. Two responses were received – Trailflow Outdoor Adventures and Shoreline Dirtworks.

Staff and the River Ridge Common project manager, Snow Owl Consulting, reviewed the two submissions using the following criteria:

- 40% for design/build team information
- 30% for project approach, methodology and management
- 30% for proposed costs, value for money and acceptance of terms and conditions

Staff is recommending Trailflow Outdoor Adventures as the successful bidder to this project for the following reasons:

1. Their project history clearly shows significant experience building both pump tracks and skills areas using both dirt and wood. Shoreline did not demonstrate any evidence of building wood features.
2. Trailflow offered a clearly stated work plan with a detailed approach, including clear consideration given to accessible play users, all age groups and non-biking users. Shoreline's approach generally appears to be a restatement of RFP wording, with little or no consideration given to specific construction details or options and no discussion of accessibility and use by others than mountain bikers.
3. Trailflow estimated quote is \$41,360 plus HST, and Shoreline estimated quote is \$46,000 plus HST

Trailflow Outdoor Adventures was the successful Design-Build contractor for the current trail system completed in 2019 and the mountain bikes trails completed in 2020. They completed all projects on time and within budget.

BUDGET IMPLICATIONS

Council has approved a budget carry-over from 2019-2020 for \$130,000 to complete the remaining components of the project as originally budgeted. This carry-over is reflected in the proposed 2020-2021 capital budget, and the pricing is within expected range for this component of the park.

STRATEGIC PLAN

The completion of this project has been a priority of Council, setting it as one of the top three priorities in the Open Space Strategic Plan. The property was acquired by MODL in 2011 and MODL hosted a successful and well-received opening of the first two phases of the park, along with the natural playground in July 2019.

WORK PLAN

The oversight of this project will continue to be through Municipal Staff, with direct project management by Snow Owl Consulting.

ALTERNATIVES

To not award the RFP.

CONCLUSION

This project has proven to be a success within our Municipality and staff continue to oversee this project and ensure the completion of all components as planned. Staff are confident in their recommendations that the response is reasonable and will help move this part of the project forward in this fiscal year.

Department: Recreation

Report Prepared By: Tissy Bolivar
Acting Director of Recreation Services

Date May 5, 2020

Report Approved By: _____

Date _____

Reviewed By CAO: _____

Date _____



RIVER RIDGE COMMON BIKE SKILLS PARK CONCEPT DESIGN

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FOREST HILL, NOVA SCOTIA

WWW.TRAILFLOW.CA

SECTION 1: WHAT IS A SKILLS PARK?

Skills parks are essentially playgrounds for bikes! Often consisting of features designed to mimic elements found on real world trails, skills parks are a great environment for teaching cycling skills and developing new riders. A bike skills park is similar in concept to that of skate park with the layout and features often drawing similarities.

One of the greatest things about a properly designed and built skills park is that the features cater to riders of all age and skill levels. From a beginner rider just starting out to a seasoned expert, there is something for everyone! This is key in the development of new riders, allowing them to hone their skills on easier terrain and progress to more challenging features as they are ready with no pressure to perform.

Most skills parks are broken down into different areas or zones based on the style of riding and features presented. Below are some examples applicable to your site

- *Dirt jumps: Popular with younger users especially BMX riders, dirt jumps are all about catching air and having fun!*
- *Pump track: A closed circuit track that consists of smooth rolling terrain and steeply banked turns that can be ridden entirely with out pedalling. Riders pump their bikes up and down on the track to generate speed. Pump tracks are a great work out and skill builder.*
- *Mountain Bike Zone: This is often the largest area in a skills park and popular with riders from all backgrounds. Features typically include rock gardens, log rides, bridges, teeter totters, drops and more!*
- *Trials Area: Although less common in skills parks trials areas are included when there is a demand present in the region. Trials riding utilizes very specialized bikes and involved hopping the bike from obstacle to obstacle in a controlled and very precise manner. This is a slow speed and very technical form of riding. Many of your current playground features and those presented in the mountain bike zones for your park are suitable for this style of riding.*

To learn more about potential bike park features see “Section 3: Example Skills Park Features” for examples and descriptions starting on page 10.

1.1 HOW CAN A SKILLS PARK BENEFIT MY COMMUNITY?

- *Increased tourism in surrounding area benefits the local economy*
- *Strengthen community bonds*
- *Reduces unauthorized trail building*
- *Develops new riders and grows the local scene*
- *Provides programming opportunities*
- *Public access to active recreation leads to healthier populations*

1.2 WHAT IS THE PROCESS?

Below is the typical process we recommend for designing a park. This concept design would be stage 3 in the process.

1. Gauge Public Support: We suggest holding public meetings and surveying potential park users to gauge project support and to determine what features are in demand.

2. Secure Land Access: Parks should be located in an easily accessible and visible location. Sites with gentle slopes are preferred, low lying, flat areas should be avoided as drainage will be difficult to maintain. Lightly wooded areas that offer a natural setting and provide some shade are desirable though open spaces also work well.

3. Concept Design & Approval: Once a suitable site is chosen, concept designs can be completed. These draft designs would offer up several options for your park with varying park sizes, feature sets and budgets. Once a concept design is chosen final design work can be completed and an updated budget submitted for final approval. In many cases this is done as a separate contract as part of the build phase.

4. Construction: Depending on the size and complexity of the park construction could take anywhere between a few days and a few months to complete. Many larger parks are built in phases over several years as funding and user demand grows. Construction is often done using a combination of commercial and volunteer labour.

5. Landscaping: An important step to finishing a park that is often overlooked is site landscaping. Planting trees and shrubs will contribute to the aesthetics of the park and can contribute to the park being respected by its users and the general public.

6. Management Plan: A detailed park management plan should be developed and implemented before the park opens to the public. Included in this would be routine inspections, maintenance guidelines, park signage and risk management measures.

1.3 PROGRAMMING AND COMMUNITY EVENTS

With a skills park in your community you will have a great resource at hand for implementing many cycling based programs and events. Programs will help grow exposure to the facility, provide the opportunity for park users to progress their skills and is a means to educate patrons about proper park usage.

Some programming and events options include:

- *Mountain Bike Lessons*
- *BMX Lessons*
- *Competitions and Races*
- *Cycling and Outdoor Recreation Festivals*

1.4 SUPPORTING ELEMENTS

Depending on the size of your park and your volume of use you may wish to install some of the following amenities and facilities:

- *Park Kiosk Signs:*
 - *Park Map*
 - *Feature Difficulty Ratings*
 - *Park Usage Guidelines*
 - *Park Open / Closed Sign*
 - *Bulletin Board*
- *Picnic tables or benches*
- *Parking Lot*
- *Site Landscaping:*
 - *Shade trees*
 - *Shrubs and plants*
 - *Boulders and rocks*
 - *Park perimeter fencing*
- *Bike Repair Station*
- *Washrooms*
- *Picnic Shelter*

SECTION 2: PARK CONCEPT

For your park we have presented three zones, each with a differing focus. The “Warm Up Zone” as the name suggests is a great place to start. The “Intermediate / Advanced Skills Zone” caters to more experienced users with the “Pump Track” offering a different style of riding that can be enjoyed by all skill levels.

All three of these zones can be scaled as needed and can be built in phases as budgets or time lines allow and if needed feature types can move between zones.

The bike park zones have been located at the far east end of the playground and can be accessed by the existing gravel trails and single track mountain bike trails.

Please see concept map on **page 7** for reference on park location and layout.

Shown designs are conceptual and are to be used as a starting point and reference to help guide the final design work to be completed during the build phase.

2.1 Warm Up Zone

Features designed for newer rider or those looking for easier options and can double as accessible natural play features.

Main line elements can be built wide enough and with gentle transitions so that those with mobility issues can enjoy the park. Bridges should be built around 32” - 40” wide and low to the ground. You may optionally add bridge bumpers to the sides to assist in accessibility and safety for users with off road wheel chairs. These bumpers can be designed such that a skilled mountain biker could ride them as an alternative line.

The main entrance would be at feature #1, optional additional entrances can be built off of the gravel trail near feature#7 or off of the ridge line single track trail near #5.

All features in this zone should be designed to be ridden both directions with minimal differences in difficulty.

2.2 Intermediate / Advanced Skills Zone

This area would cater to more experienced riders and those looking to advance their skills. We recommend the entrance to this area include a qualification feature such as a tricky rock garden or unavoidable narrow bridge as a skill based qualifier.

Many of the elements in this zone are similar to those in the “Warm Up Zone” but can be built to offer greater challenge. This can be done by using a narrower bridge, steeper grades, larger drops etc. Main line bridges can be built in the range of 18” - 36” wide for intermediate and advanced features can be even narrower.

Most features in this zone can be ridden both directions, however many can be optimized for traffic flow in a specific direction and as such may be more challenging in reverse.

Riding the dirt jump lines, wooden kicker / berm line in reverse should be discouraged with signs as rider speeds in these zones can lead to collisions.

2.3 Pump Track

Pump tracks are welcoming and accessible features for riders of all ages and abilities and are a great place to hone your riding skills. A pump track is a self contained track with banked (berm) turns, rollers and small jumps. A skilled rider can complete multiple laps of the track without pedaling but only pumping their bike smoothly.

Depending on your goals and budget, you can build a pump track with a single line or one with optional lines allowing you to change directions mid lap.

You would have space for a track between 150 and 300 feet long, potentially longer if you include internal transfer lines. Main track width should be at least 3 feet wide. Optional jumps can be included if space allows.

Most pump tracks are either built from smooth hard packed soil or are paved if budget allows. Paved or cement tracks can also cater to skate boards, scooters, wheel chairs, etc.

2.4 CONCEPT OVERVIEW MAP

Below is a map highlighting the proposed bike park areas as previously described. Please note this is a conceptual design and is not drawn to scale, or necessarily representative of the final layouts or concept that may be built. Final design work will be done during the build phase. This layout does however represent a plausible design, scope, and content applicable to your site.

Please see **page 8** for an itemized list of included features in each the Warm Up and Intermediate/Advanced Skills zones.



BP1: Warm Up Zone
BP2: Intermediate / Advanced Zone
PT: Pump Track

2.5 PRESENTED CONCEPT FEATURES:

Elements subject to change during final design. See section **Example Skills Park Features** starting on **page 10** for more details and descriptions on features.

Warm Up Zone:

1. Flat boardwalk
2. Roller
3. Berm
4. Log ride or skinnies
5. Rollers
6. Rainbow bridge
7. Roller
8. Berm
9. Rollers
10. Rock garden
11. Berm
12. Small dirt jump
13. Berm
14. Low A-frame bridge
15. Balance Square or hex
16. Stump ride

Intermediate / Advanced Skills Zone

17. Qualification rock garden "rock dodge"
18. Overpass or four way intersection bridge
19. Small Wooden kicker
20. Berm
21. Berm
22. Medium A-frame bridge
23. Berm
24. Medium Wooden kicker
25. Berm
26. Berm / Wall ride
27. Rollers
28. Rock steps
29. Log ride progression
30. Rollers
31. Berm
32. Rollers
33. Berm

34. *A-frame*
35. *Berm*
36. *Long log ride section*
37. *Low A-frame bridge*
38. *S / M drop bridges*
39. *Roller coaster bridge*
40. *Rock berm / bank*
41. *Dirt jump start pad*
42. *Dirt Jumps (S / M / L options)*

2.6 FEATURE DIFFICULTY RATINGS:

Building a park with elements for all ages and abilities helps to ensure all users have something that fits their needs and allows for skill development. As such we recommend building park features targeted for beginner to advanced riders.

Typically features for beginners will be wider, smoother, lower to the ground and have more gentle slopes than those for intermediate and advanced riders.

Most elements we have presented in our concept plan are duplicated in differing ability levels so a user can work their way up starting with an easier element before trying the more difficult version.

As a general guide any features marked as “beginner” should be able to be rolled comfortably on a bike with 24” or larger wheels without requiring the user to have their wheels leave the ground and also not have their front chain rings rub on any part of the element.

Features that require a user to have to lift their wheels into the air (*such as a drop off without a roll down*) should be rated no less than an intermediate.

For more details rating trails and features please visit www.imba.com/resource/trail-difficulty-rating-system . The IMBA system is a good starting point and is commonly used in a trails and parks world wide, some adoption may be required to fit in with regional trails and parks.

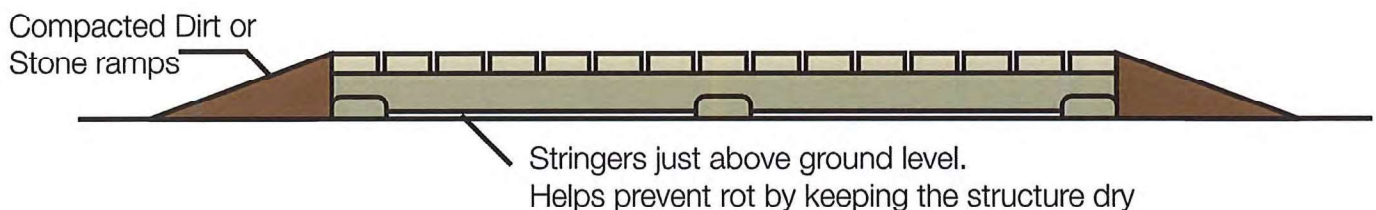
SECTION 3: EXAMPLE SKILLS PARK FEATURES:

The following pages outline the general design and construction of many common features used in dirt jump, pump track and mountain bike skills zones. These do not represent all possible park elements but offers a good cross section of potential elements.

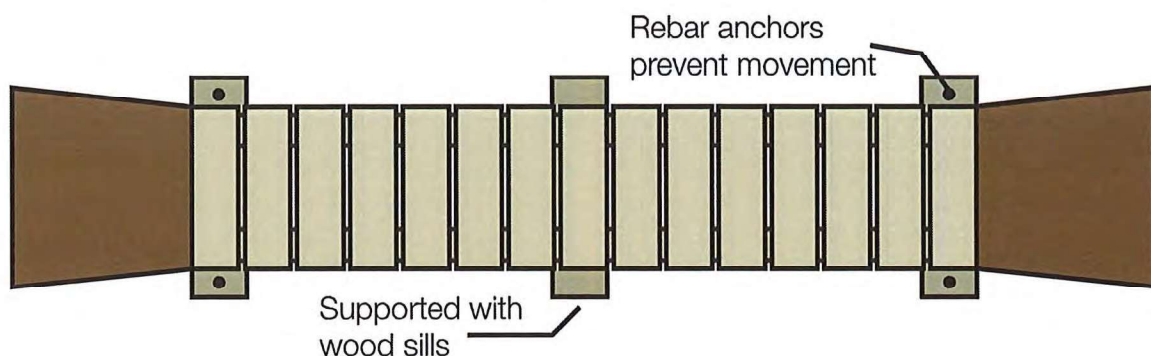
Basic Bridge Construction - Typically bridges will be constructed using the following basic guidelines.

- Decking spacing to be between 0.75 and 1.0 inch. This allows room for debris to clear and tires an edge to grip while not being so far apart that the gap becomes a hazard.
- Decking will over hang stringers typically 1 to 2 inches.
- A rot resistant wood (*such as hemlock, tamarack, cedar or treated woods*) is strongly recommended as is staining or sealing of all wooden surfaces to help prolong the usable lifespan of the structure and to improve aesthetics.
- Use of rough cut board is suggested. This is typically more economical than finished lumber and more importantly offers much greater grip for riding. Also as rough cut boards run true to size a stronger, longer lasting structure is built when compared to finished lumber.
- Smaller structures may be pegged down with rebar to prevent movement.
- Low structures will use wooden or stone sills for supports, taller bridges may use a combination of sills and post supports. These supports can be made using rustic log construction or milled lumber and should be built on firm packed soil, gravel or stone. Cement footings are not typically required.

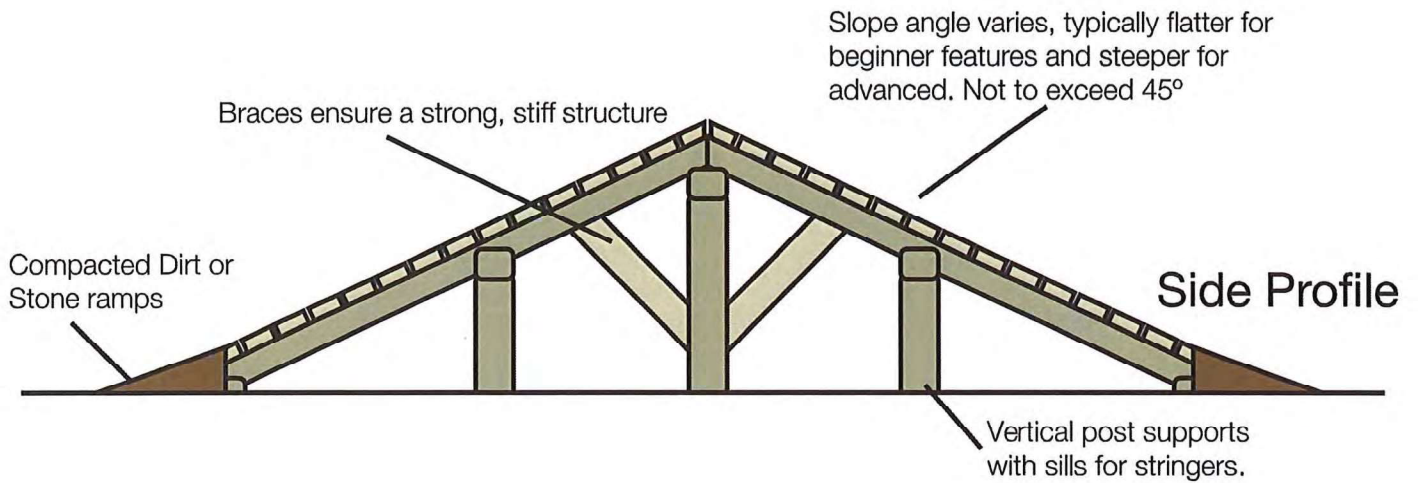
Side Profile



Top View

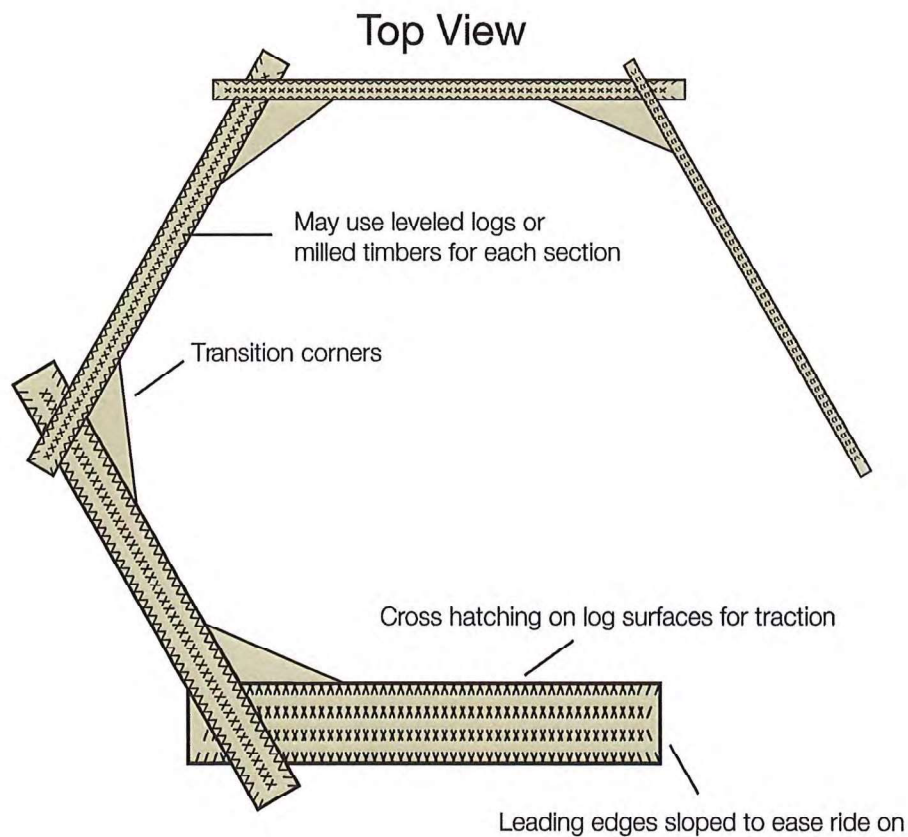


A-Frame Bridge - These bridges are sloped on both ends and peaked in the middle and are often built on trails to bridge over an obstacle such as a large fallen tree.

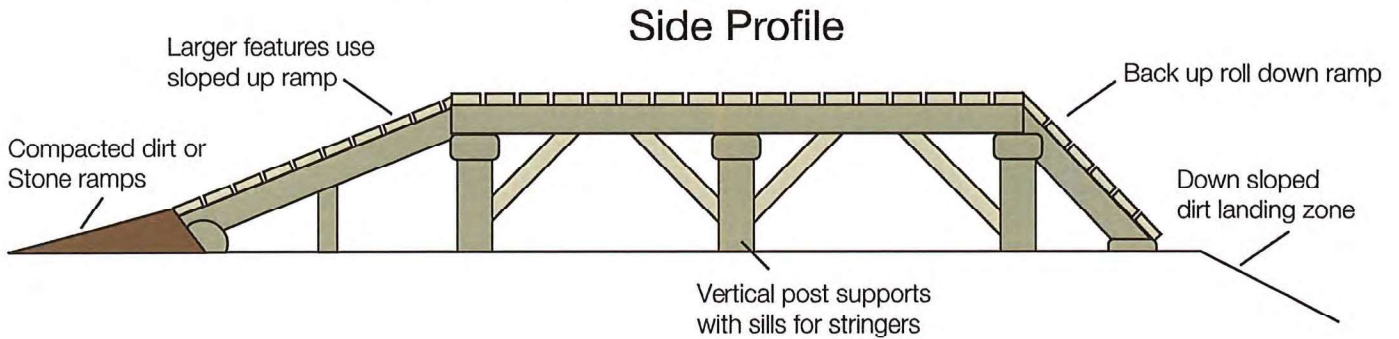


Balance Hex - Hexagon shaped bridge with each side being a different width.

Allows riders to focus on their balancing skills as they work their way from wider sections to narrower. Can be built using logs with their bark removed and the top flattened with a chain saw or milled lumber. These are sometimes also built in squares or other configurations to best fit the site.

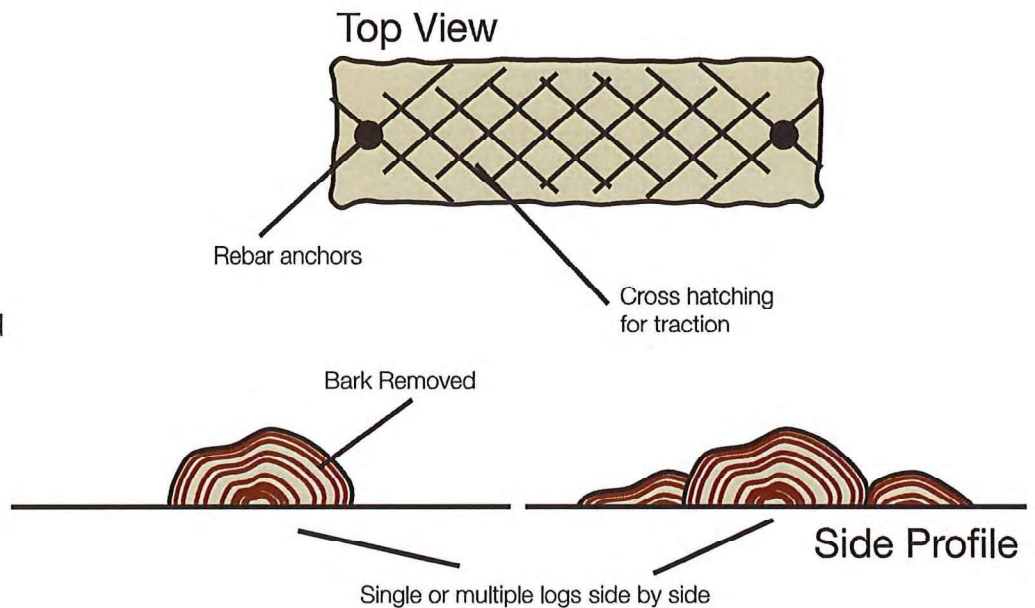


Drop Bridge - Being able to ride a drop is an important skill in mountain biking. The drop bridges we have suggested offer steady progressions, allowing riders to safely work their way up to more challenging lines. These drop bridges would feature a roll down ramp so they can also be ridden down if you're not ready to catch some air just yet.

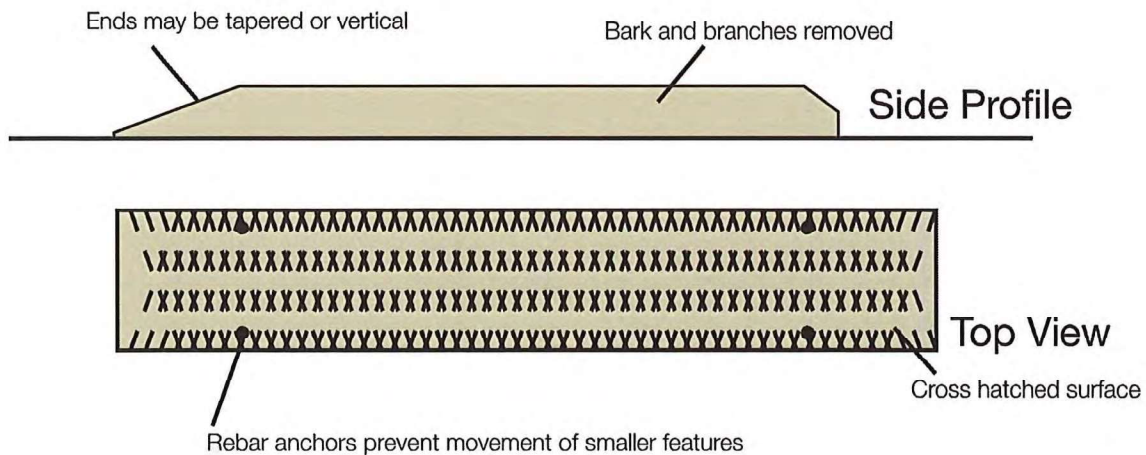


Log Over - This is a feature found on almost every mountain bike trail.

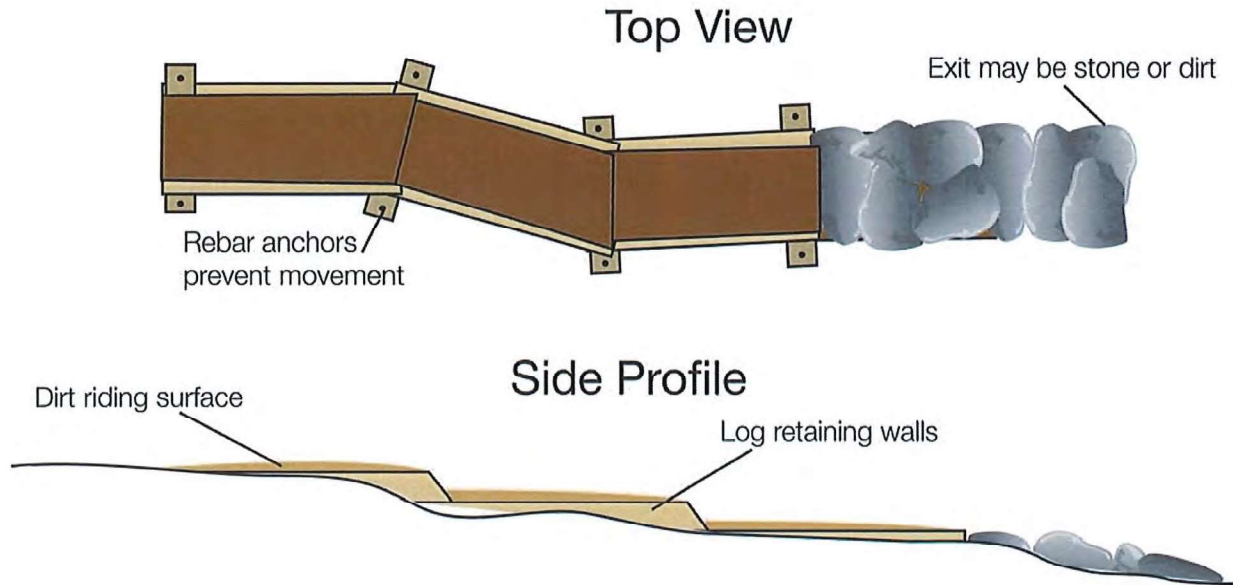
Our log over features use fresh windfall that has been de-barked and cross hatched for grip. Once set in to the ground they are held in place by rebar anchors.



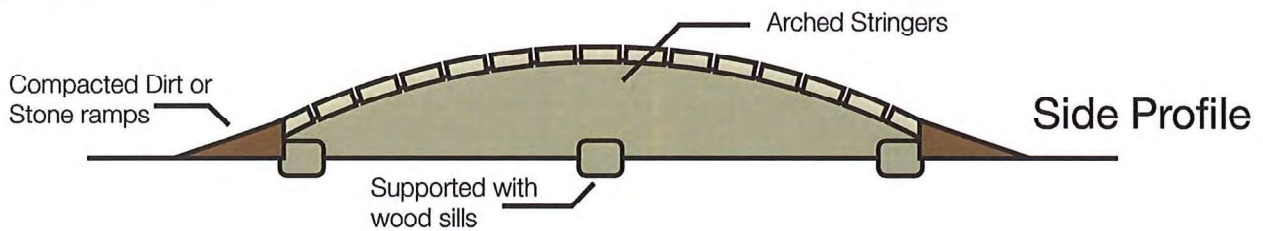
Log Ride - Here is another widely popular trail feature, the log ride! Again we prefer to use fresh windfall for these features. Riding surface is cut flat with a chain saw and cross hatched for optimum grip. A narrow log ride is also known as a "skinny". Longer sections can be often built using milled lumber.



Log Crib Stairs - This feature is designed to help teach riders how to ride over ledges. Built using log cabin style cribbing this feature is made to last, logs or railway ties can be used in the frame work.



Rainbow Bridges - A simple arched bridge, they are a ton of fun to ride and a great first step towards pumping rollers. They are a perfect feature to practice your pressure control and body positioning on.



Roller Coaster Bridge - So you've got the rainbow bridge dialed, what's next? Roller Coasters that's what! It doesn't get much more fun than this.

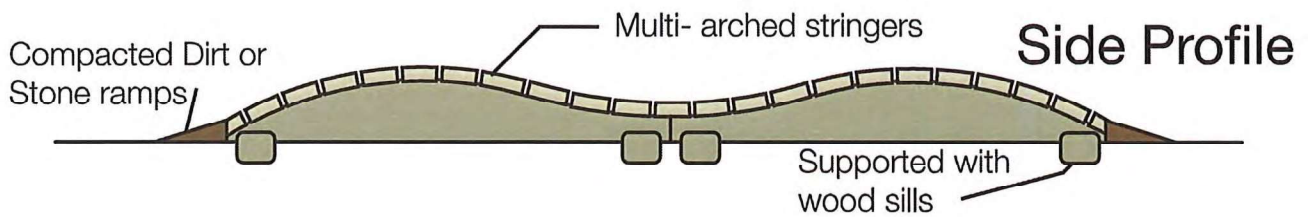
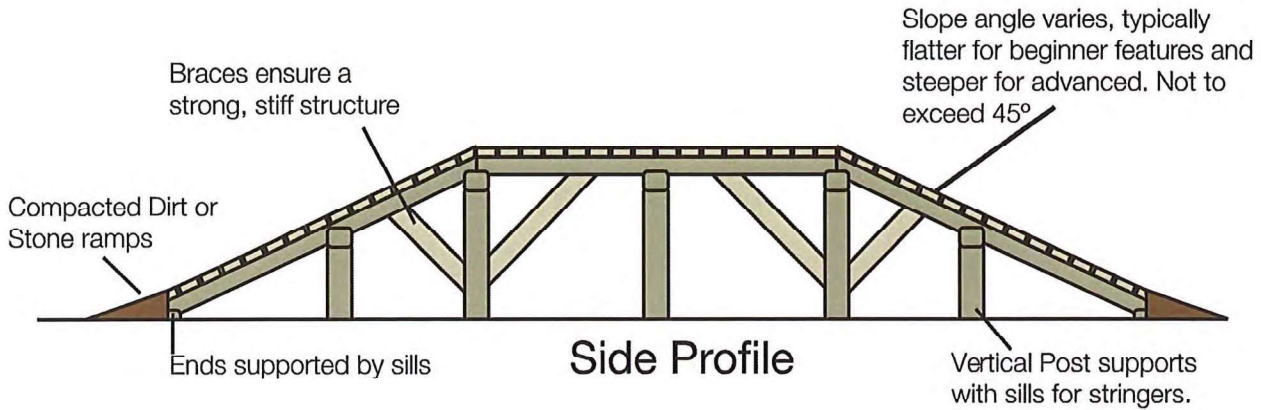
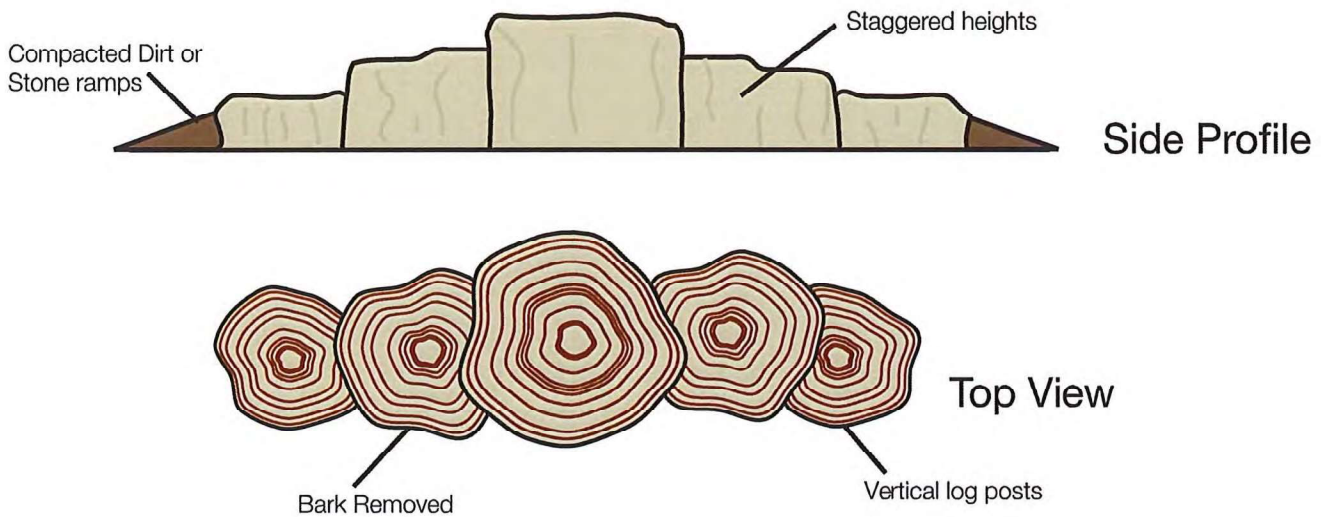


Table Top Bridge - These bridges are similar to an A-Frame bridge but with an additional flat section in the middle.

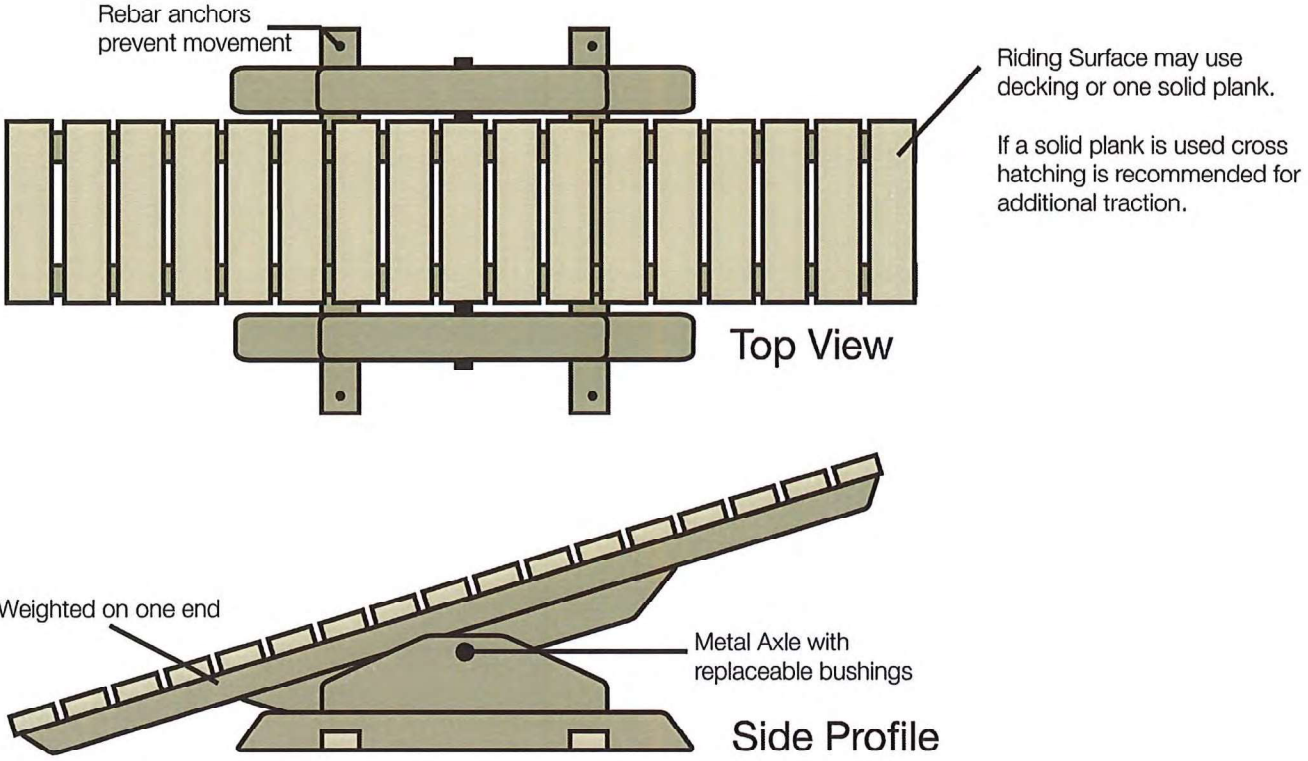


Stump Ride - A series of logs rounds placed vertically into the ground, where you ride over the top. Staggering the heights keeps things interesting, beginner lines use wide logs while advanced riders can test their skills on narrow posts.

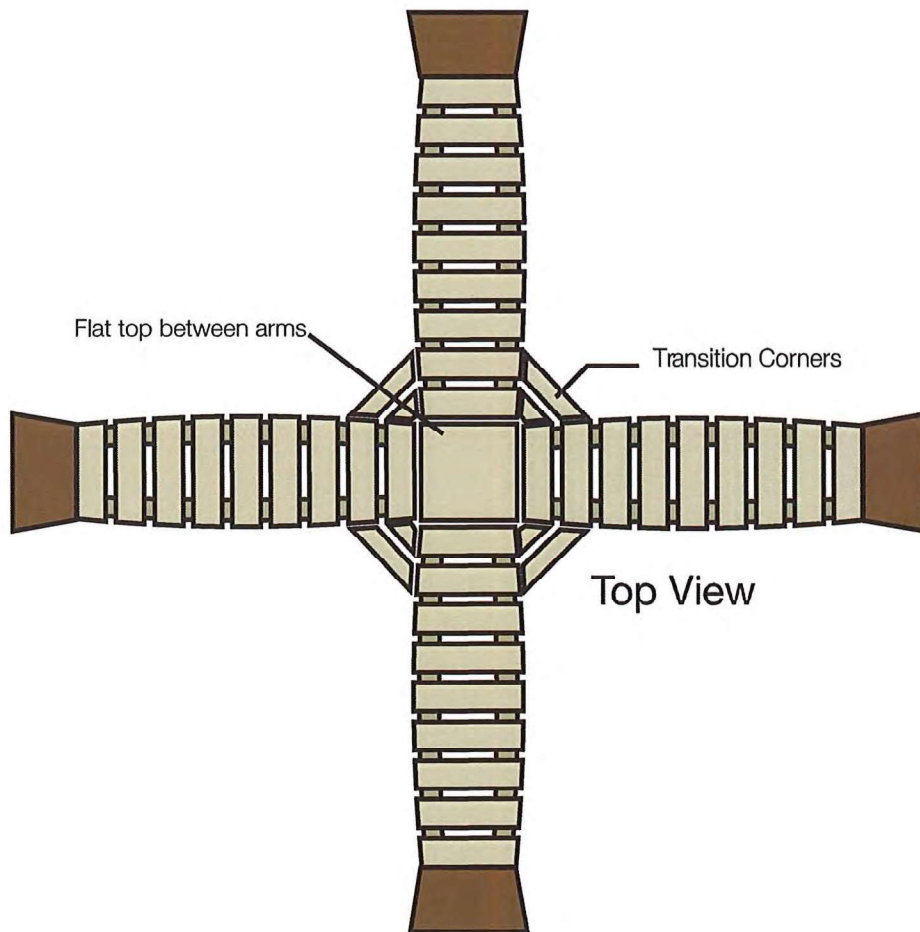
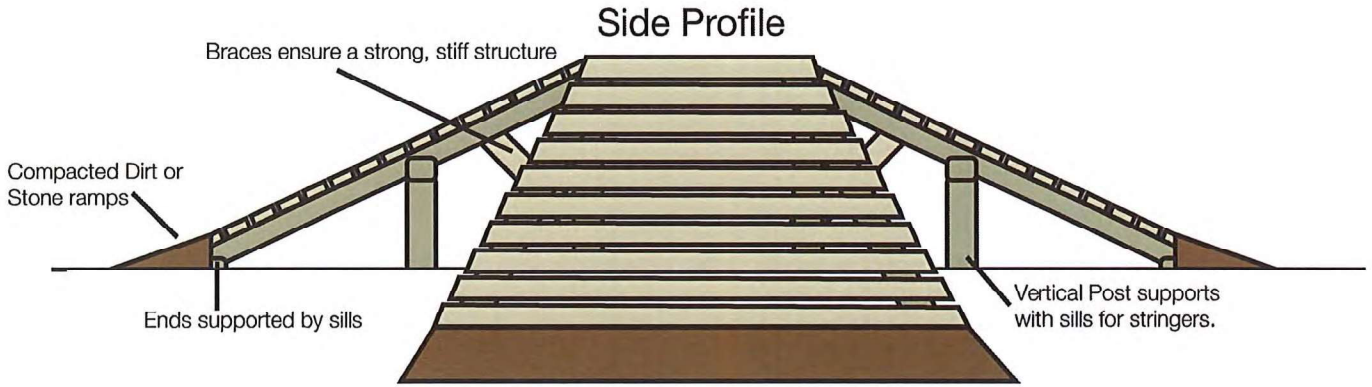
Alternately, these can be built using a row of large rocks or small boulders.



Teeter-Totter - Everyone loves a good teeter totter. They look harder to ride than they are and that keeps things exciting for new riders!

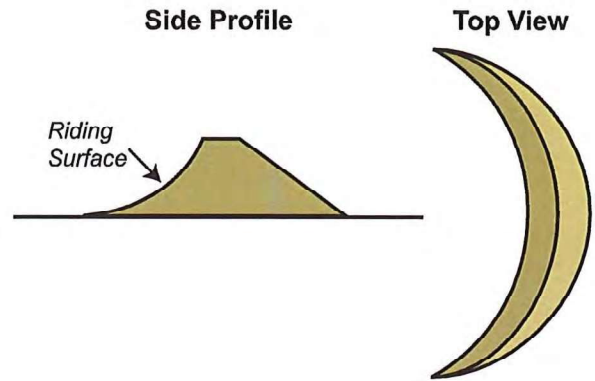


Intersection Bridge - This bridge combines two table top bridges into one with them meeting at 90°. Riders have lots of choices on this bridge as provided transition corners allow to change direction at the top.



Berms - Banked turns help riders corner easier than on flat ground. The riding surface is arced to support the riders weight and give maximum traction though the entire turn.

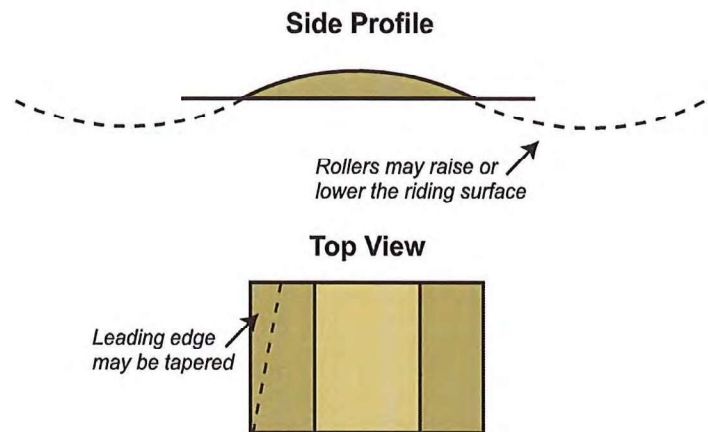
Berms are tapered with the highest point being in the middle and the ends being lower.



Roller - Also known as grade reversals; rollers help control rider speed with a gentle rise or dip in elevation.

Rollers are also used to help control erosion as they can be constructed to gently direct water off the riding surface.

When used to direct water the leading edge of the roller will be tapered to direct water in the desired direction.



Spine Jumps - Similar to a table top jump but a bit steeper and with a shorter top section. Riders will get more height than distance on this feature. Can also be used help slow riders down before a turn.

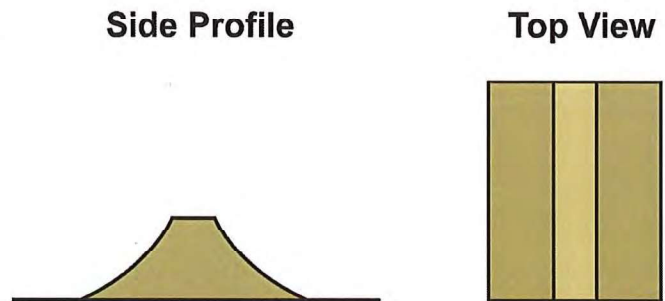
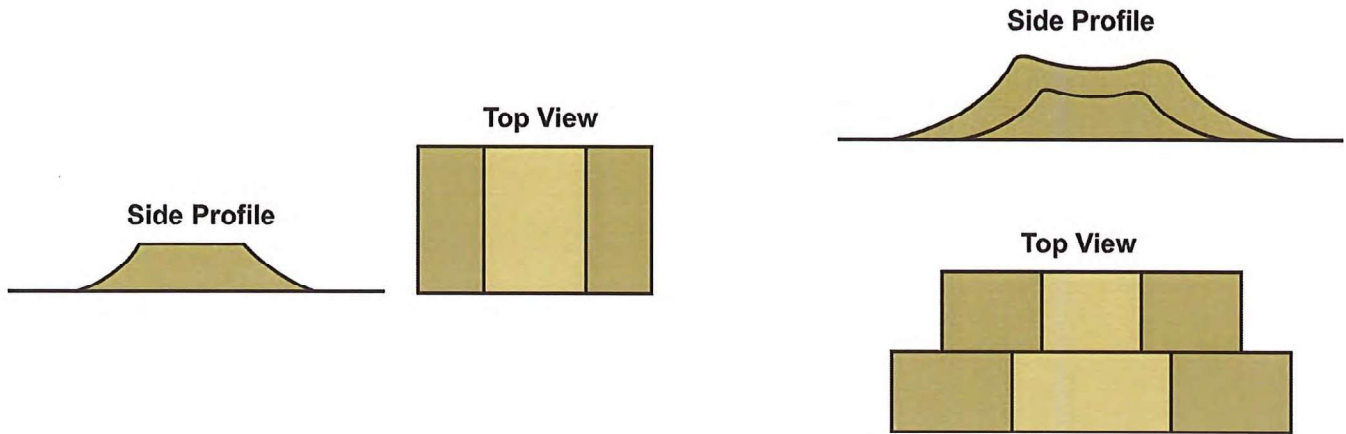
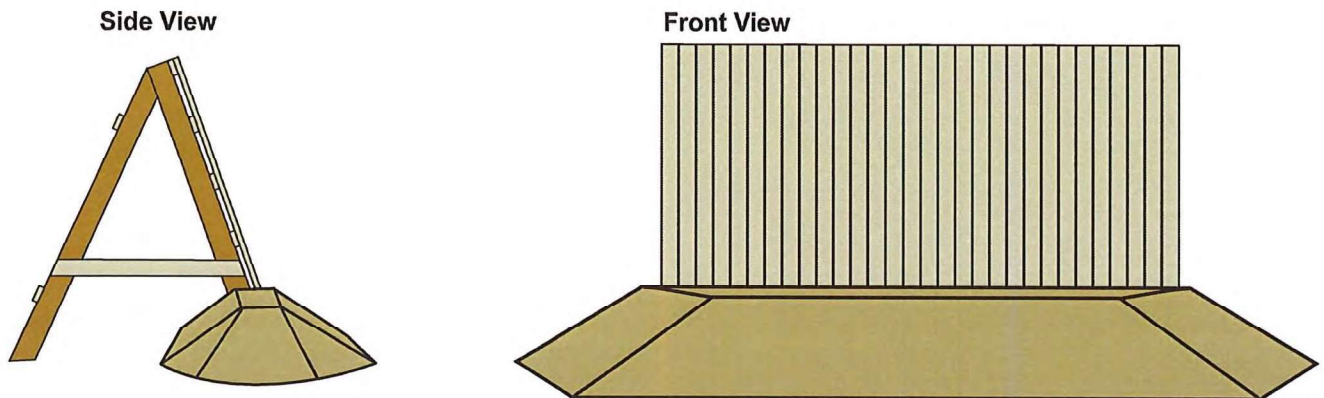


Table Top Jumps: These have arched take off and landings with a flat or scooped section in the middle. They can be rolled over or jumped.

Jumps with two or more levels can be combined side by side to save on materials and space, these also offer more options to riders as more advanced riders can transfer from the take off of one jump to the landing of the other.



Wall Ride - A wooden platform at a steep angle typically between 45° and 80° that you ride across. Momentum provides grip for the tires on the platform. Can be rolled on and off, or jumped.



3.1 BIKE PARK EXAMPLE IMAGES

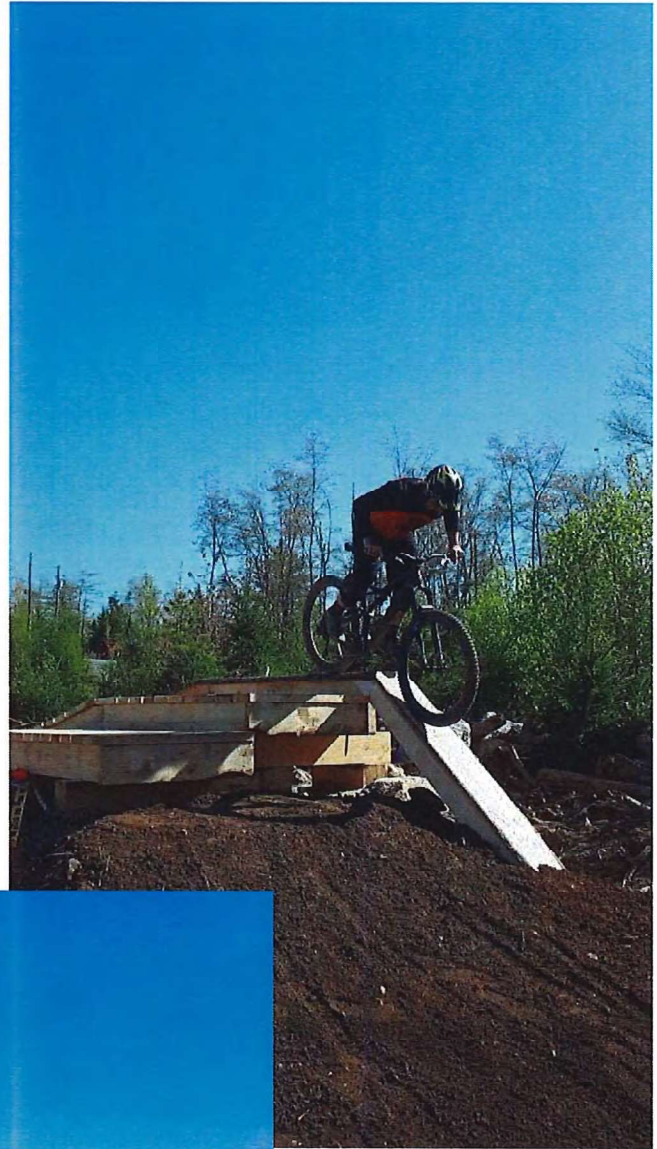
The following are photographic samples of potential features for your bike park to use as a reference.



Beginner friendly warm up zones with various features including log rides, berms, rollers, flat and arched bridges, etc.



Slow speed balance features including log rides, stumps, skinny bridges.



Drop Off bridges, including one with an optional roll down.



Balance features including log rides, and narrow bridges and skinnies

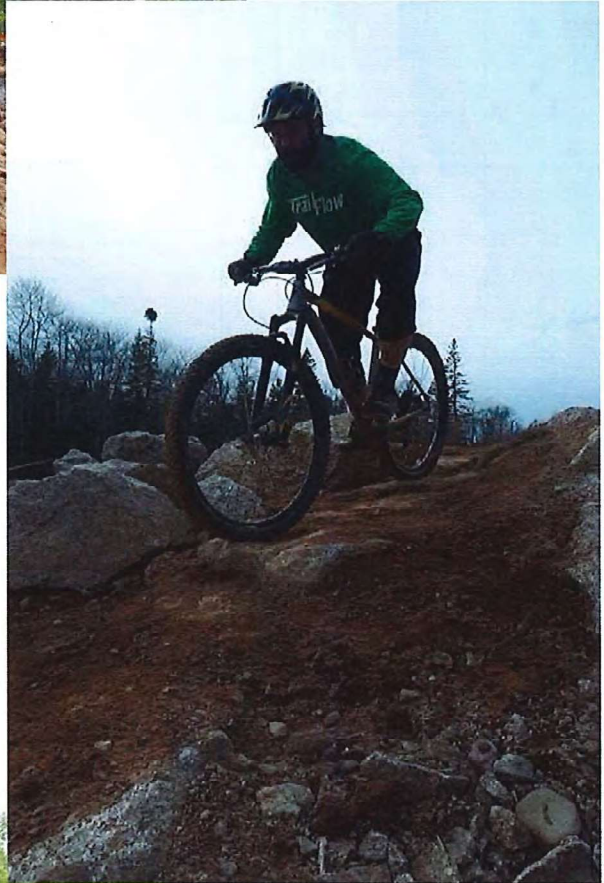


Pump Tracks with rollers and bermed turns. Surface can be soil, pavement, concrete or wood.



Table top dirt jumps in clay soil and gravel.





Rock features including a rock drop, rock stairs and rock roll down.

PARK MATERIALS NOTES / BUILDING TIPS

- *Whenever possible use rot resistant lumber.*
- *Decking / structures can be built with screws, bolts, and/or spiral nails.*
- *Space decking for bridges and boardwalks wide enough to allow water and debris to drain but close enough together to not allow fingers to get caught.*
- *Soils used for park features / connecting trails should be clean of debris such as trash and organics.*
- *Soils must pack well and hold their shape.*
- *Use of site soils for fill and some surfacing such as runways between features is acceptable provided it will firmly pack. Site soils may not be suitable for surfacing on features such as berms, pump track and dirt jumps.*
- *Dirt jumps, berms , rollers, pump tracks, etc must be built with smooth well screened soils with minimal stone to provide a smooth even riding surface.*
- *Natural log features can be cross hatched on the surface to provide additional grip for tires.*
- *All dirt surfaces in the park and surrounding area MUST be compacted, including back sides of berms and side slopes of jumps as users may not stay on the intended riding areas.*
- *Non riding surface such as back or berms, between runways and side of jumps can be covered in mulch or seeded with grasses or low shrubberies as long as they are kept trimmed low and do not pose a hazard during a crash.*
- *Any rock used should not have exposed sharp edges and must be firmly anchored in place*
- *Features must be test ridden as they are built by an experienced and skilled rider to ensure proper function and to confirm difficulty before being opened for public use.*

RISK MANAGEMENT TIPS

- *Provide features for all ability levels.*
- *Park should guide users into easier segments and features first.*
- *Difficult sections should have low risk, high skill elements as qualifications at their entrances.*
- *Ensure fall zones are clear of debris.*
- *Do not block sight lines into features and whenever possible route connecting trails such that users pass by more challenging elements giving them a chance to see the upcoming lines in advance.*
- *Clearly mark the park with difficulty ratings of elements.*
- *Frequently inspect parks for damage, wear on features and for vandalism. Ensure repairs are made in a timely manner or close segments if needed until repairs can be made.*

LANDSCAPING AND OPTIONAL ART FEATURES

One element often forgotten during a park build is site landscaping. Committing some extra resources to how your park looks can make a big impact on the site and give it a polished and completed and official feeling.

Replanting trees or shrubs in unused areas disturbed during builds will not only improve site visuals but can help improve soil stability reducing erosion and soil displacement from winds.

When considering trees, large shrubs or any hardscaping (*rocks, decorative logs or art features*) around the park it is best to also consider your long term and ongoing maintenance and how access to your bike elements will be changed. We recommend keeping at least a 10 foot buffer around features that may require machine access in the future such as your dirt jumps and pump track.

Low shrubberies and plants can be placed closer to feature such as rollers or bridges as long as they do not interfere with the riding lines.

Larger art elements can be incorporated into your bike park in few different ways including...

- *Archways (stone or wood) as entrance gates to ride between when entering or exiting each zone*
- Combination play / bikes structures such as a wooden play fort that you can ride through or a maze. These types of elements are best suited for the Warm up Zone.
- Art structures or sculptures can also be placed in the open spaces between park features provided they do not pose a hazard in fall zones or will be in the way for future machine access for maintenance. As with any landscaping or hardscaping elements we suggest a 10 foot buffer between art structures and features that will need machine access in the future.



Example maze with castle style viewing platforms.



Sample wooden trail entrance archway.



Municipality of the District of Lunenburg

REQUEST FOR A DECISION

REPORT TO: Municipal Council

SUBMITTED BY: Elana Wentzell, CPA, CMA

DATE: May 12, 2020

RE: MDL-46 Credit Card Policy Proposed Amendments

RECOMMENDATION

“ that Municipal Council amend Policy MDL-46 Credit Card Policy with the changes suggested in Sections 3, 5, 6, 9, 10, 11, and Appendix B, and hereby gives seven (7) days’ notice of its intention to approve the proposed amendments to Policy MDL-46 at the May 26, 2020 Council meeting.”

EXECUTIVE SUMMARY

Upon the request of the Bank of Montreal to seek a Council Resolution for the issuance of Corporate credit cards, staff have reviewed the existing policy for the use of Municipal Credit Cards (MDL-46) and determined that some housekeeping amendments are in order.

This policy was approved by Council on June 8, 2010. Since that time, staff job titles have changed and some positions have been eliminated or realigned.

The suggested changes encompass changing the title “Assistant Treasurer” to “Accounting Manager”, removing references to the “Purchasing Coordinator”, and replacing “Accounts Payable” with “Financial Services Assistant” .

Suggested changes are as follows:

Section 3.2 remove “Purchasing Coordinator” and replace with “Accounting Manager”.

Section 5.7.2 remove “Purchasing Coordinator” and replace with “Accounting Manager”.

Section 6 remove “or Purchasing Coordinator” .

Remove Section 9.2.2 in its entirety “Purchasing Coordinator Credit Card – single transaction limit is \$5,000 except for emergency situations, with a maximum monthly amount of \$20,000.”

Renumber 9.2.3 to 9.2.2.

Section 10.4 replace “Accounts Payable: with “Financial Services Assistant” and change the dates when statements are received.

Section 11.3 remove “Assistant Treasurer” and replace with “Accounting Manager” in two instances.

Appendix “B”, section 9 remove “Assistant Treasurer” and replace with “Accounting Manager”.

DISCUSSION

This policy has not been updated in almost ten years and does not reflect the current staffing compliment or job titles.

OPTIONS

Council could decide not to accept the recommended amendments to the policy.

Department: Finance and Administration	
Report Prepared By: Elana Wentzell	Date: April 30, 2020
Report Approved By: _____	Date _____
Reviewed By CAO: _____	Date _____

Municipality of the District of Lunenburg POLICY

Title: Credit Card Policy	
Policy No. MDL-46	
Effective Date: June 8, 2010	Amended Date:

1. Purpose

The Credit Card Policy is to establish a more efficient, cost-effective method of purchasing and payment for store purchases; gas purchases; and, where appropriate, travel, meals, accommodation expenses, US dollar purchases and emergency purchases.

2. General

This Policy provides the guidelines for use of a Municipal Credit Card. It is recommended that employees read the Policy in its entirety prior to making a credit card request. The Policy also provides a variety of information about the process, types of purchases that may or may not be made, who will accept the Credit Card, records that must be maintained and reconciled monthly and other information related to the administration of the policy.

3. Obtaining a Credit Card

To obtain a credit card the following steps are required:

- 3.1 After you have read the Policy and understand the procedures outlined, complete a New Account Information Record (Credit Card Application Form – Appendix A).
- 3.2 Supervisor's must indicate approval by signing the Application Form. All signed requests will be given to the ~~Purchasing Coordinator~~ Accounting Manager who will process the orders for the Credit Cards.
- 3.3 Upon delivery of the Credit Card, review and sign the Credit Cardholder Agreement (**Appendix "B"**) to accept your Credit Card. Supervisors must also sign the Agreement.
- 3.4 Upon receipt of the Credit Card, call the 1-800 number on the Credit Card to activate it, sign the back immediately, and keep it in a secure place.

Contact your Supervisor or the Finance Department if any questions arise about the use of the Credit Card or this policy. Credit Card usage may be audited and/or rescinded at any time.

4. Changing Credit Card Information

If a Credit Cardholder relocates to another Department; they must provide the Finance Department with new account information. This may include but not limited to the following:

- new location,
- address,
- phone number,
- fax number.

Keeping Credit Card records current will alleviate delays in the processing of Credit Card Statements.

5. Use of Credit Card

- 5.1 Only the person whose name is shown on the card is entitled to use the Credit Card.
- 5.2 This Policy is not intended to avoid or bypass appropriate purchasing or payment procedures. Rather, the Policy complements the existing processes available.
- 5.3 This Policy is not intended to replace the current travel policy contained in Policy MDL-51, Personnel Policy.
- 5.4 This Credit Card shall not be used for personal use.
- 5.5 Acquiring cash advances from this Credit Card is strictly prohibited.
- 5.6 This Policy is not intended to circumvent the Municipality's Purchasing Policy. Credit Card transactions which exceed the single transaction limit shall not be split or divided in order to obtain the purchase.
- 5.7 This Credit Card may be used at any vendor or supplier who accepts the Credit Card throughout Canada or any other country per the Policy on acceptable purchases such as:
 - 5.7.1 Emergency situations, automotive repair for field personnel
 - 5.7.2 Specific accounts may be established with the help of your Supervisor and ~~Purchasing Coordinator~~ Accounting Manager to release goods and pay for goods using this Policy. These charges may be set up independently from your general usage Credit Card.
 - 5.7.3 Travel, meals, and lodging
 - 5.7.4 Store purchases
 - 5.7.5 Gas Purchases
- 5.8 This Credit Card may NOT be used for:
 - 5.8.1 Generally, any item exceeding \$1,000 in value or the amount approved for the individual Credit Cardholder (see Section 9.2).
 - 5.8.2 Any goods or service normally considered to be inappropriate use of Municipal funds
 - 5.8.3 Capital equipment
 - 5.8.4 Stock items available through our on hand supplies or through approved ordering systems or policies
 - 5.8.5 Items secured through blanket orders and negotiated contracts

6. Questions and Feedback

As with any process, it is difficult to anticipate every question or issue regarding the policy. A key element in how well this process works will be the user's feedback. Suggestions for improvement or change will be important. Please inform the Finance Department ~~or Purchasing Coordinator~~ of any suggestions for improvements and any problems that may occur.

7. Record Keeping

Record-keeping will be essential to ensure the success of this policy. This is not an unusual requirement as standard reimbursement policies require retention of receipts and as with any charge Credit Card, receipts must be retained for your protection.

8. Warnings

- 8.1 Card Holders are responsible for the security and transactions made with the Credit Card. Credit Cards are issued in the card holders name and it will be assumed that any purchases made with the Credit Card have been made by the person whose name is shown.
- 8.2 The Credit Card is the property of the Municipality of the District of Lunenburg and is only to be used for municipal purchases as defined in this policy.
- 8.3 A Credit Card used not in compliance with the guidelines established for this Policy will result in severe consequences, up to and including termination of employment.

9. Restrictions

9.1 Raising of Credit Limit

Each Credit Card has been assigned an individual credit limit. The limit is based on previous purchasing activity as approved by your Supervisor. If over time the limit is too low to accommodate monthly requirements, contact your Supervisor, in writing, to have the limit re-evaluated. If your Supervisor agrees, the Supervisor will sign the request as approved and forward to the Finance Department. The Finance Department will ensure that the appropriate changes are performed. The Credit Card Bank will not change credit limits – it must be done by contacting the Finance Department.

9.2 Exceeding the Limits

- 9.2.1 Regular Credit Cards - In addition, except for emergency situations, no single transaction shall exceed \$1,000 in value with a maximum of \$5,000 monthly or the amount approved for the Credit Cardholder. Any transaction which exceeds the limit must be processed through regular purchasing processes.
- 9.2.2 ~~Purchasing Coordinator Credit Card—single transaction limit is \$5,000 except for emergency situations, with a maximum monthly amount of \$20,000.~~

9.2.32 The Treasurer is authorized to approve at his/her discretion single and monthly maximum transaction values that are outside the established values.

9.3 Credit Card Not Accepted

Vendors currently utilized as a source for products or services will likely accept your Credit Card. If your card is declined and you feel the decline should not have occurred, contact the Finance Department as they will determine if you were declined because of merchant blockage or having exceeded the monthly credit limit or single transaction dollar limit imposed on your Credit Card.

10. Reconciliation and Payment

10.1 Payment of Statements

The Credit Card Policy carried corporate, not individual liability. Invoices will be paid by Accounts Payable. Employees will not be required to pay monthly statements. This Policy does not impact personal credit ratings.

10.2 Record Keeping

It is required that all receipts for goods and services purchased be retained as it is the only original documentation specifying whether or not tax has been paid against the purchase.

If purchases are via phone or mail, request the vendor to include the receipt with the goods when the product is shipped.

10.3 Code appropriate GL account numbers on each receipt.

10.4 Non-Gas Credit Cards - Processing Statements for Payment

10.4.1 Statement date is the ~~first~~ last week of each month. You should receive your statement in the ~~second~~ first week of each month. If you do not receive it by this date, contact ~~Accounts Payable~~ Financial Services Assistant. When employees receive their statement they shall follow the following procedures.

10.4.1.1 Check all slips collected over the month against the statement to ensure they match.

10.4.1.2 All slips must be attached to the statement. All statements shall have the actual detailed receipts attached showing the breakdown of items and applicable taxes paid.

10.4.1.3 Statements must be approved by card holder and supervisor (ensure your names are printed beside signatures). The CAO will approve Department Heads expenses.

- 10.4.1.4 Once a statement has been approved, it is to be forwarded to ~~Accounts Payable~~ [Financial Services Assistant](#) for processing.
- 10.4.1.5 Statement must be received by ~~Accounts Payable~~ [Financial Services Assistant](#) no later than the 20th of each month to be included in the end of the month GL posting.
- 10.4.1.6 Failure to forward approved statements by the deadline will not allow postings to the GL. Therefore, failure to forward two statements in a row will cause the temporary deactivation of the card until all statements have been brought up to date. Upon which the Supervisor may then apply for reactivation of the card.
- 10.4.1.7 Statements received, but have either receipts missing or improper signatures, the cardholder and their supervisor will be notified for the first two instances. On the 3rd instance, the card will be deactivated without notice.
- 10.4.1.8 If the Credit Cardholder fails to reconcile their statement within 30 days of the statement date, the Finance Department may terminate Credit Card privileges.
- 10.4.1.9 All receipts will be maintained/stored by the Finance Department for audit purposes.

10.5 Gas Credit Cards - Processing Statements for Payment

- 10.5.1 Forward all of receipts to Accounts Payable. They will be matched to statements and then sent to Supervisors for approval. Odometer readings shall be marked on the receipt. If you are using a rental vehicle, please indicate this rather than the odometer reading.

11. If Records Don't Agree with Statements

There may be occasions where items on a statement do not correlate with retained receipts, or you may not have made the transaction or the amount of the transaction is incorrect. The following is the steps required to correct errors:

- 11.1 Contact the vendor
- 11.2 If the vendor agrees that an error has been made, a credit will be made to your account
- 11.3 If the vendor does not agree that an error has been made, contact the ~~Assistant Treasurer~~ [Accounting Manager](#) stating that you would like to dispute a charge on your Credit Card, giving all the pertinent details. The ~~Assistant Treasurer~~ [Accounting Manager](#) will investigate with the Credit Card Bank and advise on the status of the dispute.

- 11.4 Any charge that is disputed must be identified within 30 days of the statement date. Disputes will then be resolved by the Credit Card Bank within 90 days.
- 11.5 Highlight the transaction in question on the statement as a reminder that the item is still pending resolution.
- 11.6 Cardholders are responsible for reviewing the transactions identified on their statement. You must be able to produce receipts and/or proof that the transaction occurred. If an error is discovered, cardholders are responsible to show that the error or dispute resolution process has been invoked.

12. Lost or Stolen Credit Cards

Credit Cards are the property of the Municipality of the District of Lunenburg and shall be kept secure. If your Credit Card is lost or has been stolen, or if the number becomes the knowledge of someone else, notify the Credit Card Bank Customer Service immediately.

Once a credit card has been reported lost or stolen, the Credit Card will be deactivated. Prompt action in these circumstances can reduce the Municipality’s liability for fraudulent charges.

- 12.1 Contact the Finance Department to get current Bank Customer Service Numbers for both non-gas credit cards and gas credit cards.

Clerk’s Annotation for Official Policy Book	
Date of Notice to Council Members of Intent to consider	<u>May 6, 2010</u>
Date of Adoption	<u>June 8, 2010</u>
Date of Notice to Council Members of Intent to Consider Amendments	_____
Date of Passage of Amendments:	_____
I certify that this “ <i>Credit Credit Card Policy – MDL-46</i> ” was adopted by Council as indicated above.	
_____	_____
Municipal Clerk	Date

Appendix "A"

Municipality of the District of Lunenburg
Employee Credit Card Application

Employee Name: _____

Mailing Address: _____

Home Phone Number: _____ Work Phone Number: _____

Date of Birth _____ Employee Number: _____

Single Transaction Limit: _____ Monthly Limit: _____

Employee Signature: _____ Date: _____

Supervisor's Signature: _____ Date: _____

Appendix "B"
Municipality of the District of Lunenburg
Card Holders Acknowledgement and Agreement

This Municipality of the District of Lunenburg (MODL) _____ Credit Card represents MODL's trust in you. You are empowered as a responsible agent to safeguard MODL assets. Your signature below is verification that you have read the Credit Card Policy and agree to comply with it as well as the following responsibilities. It also acknowledges that you have received a MODL Credit Card Number _____ Expiry Date _____

1. I understand the Credit Card is for company-approved purchases only, and I agree not to charge personal purchases. Improper use of this Credit Card is considered misappropriation of Municipal funds. This may result in disciplinary action, up to and including termination of employment.
2. If the Credit Card is lost or stolen, I will immediately notify _____ by telephone at _____. I will confirm the telephone call by email or facsimile with a copy of the notification to the Municipal Treasurer.
3. I agree to surrender the Credit Card immediately upon termination of employment, whether for retirement, voluntary or involuntary reasons.
4. The Credit Card is issued in my name. I will not allow any other person to use the Credit Card. I am considered responsible for any and all charges against the Credit Card.
5. I understand that in the event of willful or negligent default of these obligations, MODL shall take recovery action deemed appropriate as permitted by law.
6. All charges will be billed directly to and paid directly by the Municipality. The _____ cannot accept any monies from me directly, therefore any personal charges billed to the Company could be considered misappropriation of Municipal funds.
7. As the Credit Card is Municipal property, I understand that I may be periodically required to comply with internal control procedures designed to protect company assets. This may include being asked to produce the Credit Card to validate its existence.
8. I understand the Credit Card has been issued to me as an employee of MODL. I will under no circumstances be personally liable to the Credit Card for any obligations arising from use of the Credit Card except in the event of misappropriate use of funds.
9. I will receive a Monthly Reconciliation Statement, which will report all activity during the statement period. Since I am responsible for all charges (but not for payment) on the Credit Card, I will resolve any discrepancies by either contacting the vendor or the ~~Assistant Treasurer~~ Accounting Manager.
10. It is my responsibility to provide the Finance Department with the proper GL account breakdown for all transactions processed against the Credit Card.
11. I understand the Credit Card is not necessarily provided to all employees. Assignment is based on my need to purchase materials for MODL. My Credit Card may be revoked based on change of assignment or location. I understand that the Credit Card is not an entitlement nor reflective of title or position.
12. I acknowledge I must follow the Policies and Procedures related to the use of the Credit Card.

Employee Signature

Supervisory Signature

Date



Municipality of the District of Lunenburg

REQUEST FOR A DECISION

REPORT TO: Municipal Council

SUBMITTED BY: Elana Wentzell, CMA, CPA

DATE: May 12, 2020

RE: Resolution re: BMO Credit Facilities

RECOMMENDATION

Move that Municipal Council approve the establishment of a \$10,000,000 Overdraft lending facility and \$100,000 Corporate Master Card facility with the Bank of Montreal for the purposes of Operating expenditures and to authorize the Mayor and the Director of Finance to sign a resolution for same.

EXECUTIVE SUMMARY

Municipal Council awarded the banking RFP 2018-01-401 to the Bank of Montreal on January 14, 2020. The RFP included establishing credit facilities for an Operating line of credit (overdraft lending facility) of \$10,000,000 and \$100,000 for Corporate credit cards. Similar credit facilities exist with CIBC. These credit facilities do not affect the Municipality's debt ratio as they are not capital borrowings.

The \$100,000 credit card facility would be the total amount of credit issued for all cards combined. Currently, the new cards issued would utilize \$50,000 of this credit facility.

The \$10,000,000 Operating line of credit is used in two ways: the facility would be triggered if the combined bank account balances were in a negative position and it will be used to net the bank account balances in order to pay out monthly interest.

DISCUSSION

The line of credit is a standard credit facility the Municipality has had in the past with other banking institutions. A copy of the proposed resolution is attached.

The Municipality has a Policy MDL-46 that sets the parameters for the use of Municipal credit cards. All cards issued are authorized by Department Supervisors, and staff must follow strict guidelines for use including not using the cards for cash advances and personal purchases.

The credit card policy is not intended to circumvent the Municipal Purchasing Policy, rather it complements existing purchasing processes available.

CONCLUSION

In order to set up the overdraft lending facility and facilitate the use of new credit cards with the Bank of Montreal, Council must make a resolution that is signed by two authorized signatories.

Department: Finance and Administration

Report Prepared By: Elana Wentzell

Date: April 29, 2020

Report Approved By: _____

Date _____

Reviewed By CAO: _____

Date _____

Municipality of the District of Lunenburg

Resolution for Operating Credit Facilities

WHEREAS the Council of the Municipality of the District of Lunenburg awarded RFP 2018-01-401 to the Bank of Montreal on January 14, 2020;

AND WHEREAS the RFP set out requirements for operating credit facilities for an operating overdraft lending facility in the amount of \$10,000,000 and a corporate credit card facility in the amount of \$100,000,

AND WHEREAS the Bank of Montreal requires a Resolution of Municipal Council signed by two authorized signatories in order to set up these facilities;

BE IT THEREFORE RESOLVED

THAT the Council of the Municipality of the District of Lunenburg approves Operating credit facilities in the amounts of \$10,000,000 for an Operating overdraft lending facility and \$100,000 for a Corporate Credit Card facility;

THAT this resolution remains in force for a period not exceeding five years from the passing of this resolution.

THIS IS TO CERTIFY that the foregoing is a true copy of a resolution duly passed at a meeting of the Council of the Municipality of the District of Lunenburg held on the 12th day of May, 2020

GIVEN under the hands of the Mayor and the Director of Finance of the Municipality of the District of Lunenburg

This 12th day of May, 2020

Carolyn Bolivar-Getson, Mayor

Elana Wentzell, Director of Finance



Municipality of the District of Lunenburg

MEMORANDUM

TO: Council

FROM: Amy Wamboldt, Grant Coordinator

DATE: May 4, 2020

RE: 2020 PCAP and FRIIP Funding

Recommended Motions:

“that Municipal Council endorses the generator for the Conquerall Bank WWTP as the funding priority for the 2020 Provincial Capital Assistance Program”.

“that Municipal Council endorses Phase 3 of the Petite Watershed Flooding Project as the funding priority for the 2020 Flood Risk Infrastructure Investment Program”.

Background:

The Provincial Capital Assistance Program (PCAP) is a provincial 50% funding program to assist with the cost of municipal infrastructure projects. The Province will be accepting applications for the PCAP funding program until May 25, 2020.

In allocating program funds, emphasis will be placed on projects designed to eliminate existing environmental problems, especially around pollution abatement.

In the 2020/21 Capital Budget, Council intends to purchase a generator for the Conquerall Bank WWTP. Currently the WWTP does not operate when there is a power failure. During power failures, sewage passes through the plant without treatment directly into the LaHave River. An on-site generator, equipped with an automatic transfer switch, will provide temporary power to operate the plant in the event of power outages. The estimated cost of this generator, including HST and installation is \$50,000.

With Council’s support in the form of a resolution, staff will prepare a PCAP funding application to offset the cost of the new generator for the Conquerall Bank WWTP.

The 2020 Flood Risk Infrastructure Investment Program (FRIIP) is a provincial program to provide 50% funding towards projects that reduce flood risks and community vulnerability. The Province will be accepting applications for the FRIIP funding program until May 25, 2020.

The FRIIP funding program provides an opportunity for Council to further the work on the Petite Watershed Flooding project. Funds from the 2019/20 budget were combined with funding from the National Disaster Mitigation Program (\$9,200 from MODL budget) to complete Phase 1 of this project, which focused on identifying the flood risk within the watershed. Funds from the 2019/20 budget were

also contributed toward Phase 2 of the flooding study (\$40,000 from MODL budget). Phase 2 is nearing completion and will provide recommendations on possible flood mitigation options for risks identified in the Fancy Lake area. The options that are under consideration include:

- Land use planning options;
- Flow control measures;
- Conveyance capacity increase; and
- Flood protection measures.

In the 2020/21 budget, \$100,000 has been earmarked for the continuation of the Petite Watershed Flooding project. With Council's support, staff will apply to FRIIP for funding for Phase 3 of project. The specific components of Phase 3 will be determined by Council following the Phase 2 study results, which are expected in the coming weeks.



Municipality of the District of Lunenburg

REQUEST FOR DECISION

REPORT TO: Municipal Council

SUBMITTED BY: Norma Schiefer, Municipal Development Officer

DATE: May 5, 2020

RE: **Areas Where New Public Roads are Permitted – MDL-88**

RECOMMENDATION

“that Municipal Council amend Policy MDL-88 Areas Where New Public Roads are Permitted, as presented, and, hereby, gives 7 days’ notice of its intention to amend Policy MDL-88 at the May 26, 2020 Council Meeting”.

And

“that Municipal Council repeal Policy MDL-24 A By-law Respecting the Subdivision of Land in the Mun. of Lun. – Amendments By Policy, approved Nov. 12, 2003 and MDL-25 Policy to Amend Engineering Specifications for Public Highways, approved June 1, 2004, and, hereby, gives 7 days’ notice of its intention to repeal policies MDL-24 and MDL-25 at the May 26, 2020 Council Meeting”.

EXECUTIVE SUMMARY

In 2019, the Municipality constructed a new road, the extension to Nathan Cirillo Road, on their property in Cookville. It is required to be listed in Schedule K of the Municipal Subdivision By-law as a new Municipal Road to permit future subdivision of this property.

Policies MDL-24 and MDL-25 are now obsolete due to the approval of the new Municipal Subdivision By-law on September 24, 2018.

DISCUSSION

As part of the Municipality’s Subdivision By-law review in 2018, Council had identified, by policy in the Municipal Planning Strategy that they would not accept any new Municipal Roads without considering if it would be economically sustainable. Council

would consider new Municipal Roads on a case by case basis through an amendment to Schedule K – MDL-88.

In 2019, the Municipality built Nathan Cirillo Road to connect to Allee Champlain Dr which provides connectivity through PID 60631009 (owned by the Municipality). In order to allow the future creation of lots, we are required to list this new Municipal Road in MDL-88.

Also, in 2018, the Municipality of Lunenburg’s Municipal Planning Strategy and Subdivision By-law was repealed and replaced effective September 24, 2018. As a result of that process, Policy’s MDL-24 and MDL-25 are now obsolete and are required to be repealed.

BUDGET IMPLICATIONS

N/A

STRATEGIC PLAN

N/A

WORK PLAN

N/A

ALTERNATIVES

Don’t approve the policy amendment. If MDL-88 is not amended to include PID 60631009 as an area where new Public Roads are permitted, frontage for lot creation will not be acceptable on Nathan Cirillo Road.

CONCLUSION

Any areas acceptable for new Municipal Roads are required to be listed in Schedule K of the Subdivision By-law – MDL-88 to allow future lot creation with frontage on these roads.

Department: Administration

Report Prepared By: Norma Schiefer, Development Officer

Date: May 5, 2020

Report Approved By: Alex Dumaresq, Deputy CAO

Date:

Reviewed By CAO: Tom MacEwan, CAO

Date:

Municipality of the District of Lunenburg POLICY

Title: Areas Where New Public Roads Are Permitted	
Policy No. MDL-88	
Effective Date: September 24, 2018	Amended Date:

The policy forms Schedule “K” of the Subdivision By-law.

SCHEDULE ‘K’

AREAS WHERE NEW PUBLIC ROADS ARE PERMITTED

~~None~~

PID 60631009 – Nathan Cirillo Road, Cookville

<p>Clerk’s Annotation for Official Policy Book</p> <p>Date of Notice to Council Members: August 28, 2018</p> <p>Date of Passage of Current Policy: September 24, 2018</p> <p>Date of Notice to Council Members of Intent to Consider Amendments:</p> <p>Date of Passage of Amendments:</p> <p>I certify that this “<i>Policy MDL-88</i>” was adopted by Council as indicated above.</p> <p>_____</p> <p>Municipal Clerk</p>
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**A BY-LAW RESPECTING THE SUBDIVISION OF LAND IN THE
MUNICIPALITY OF THE DISTRICT OF LUNENBURG -
AMENDMENTS APPROVED BY POLICY**

POLICY MDL-24

Notice of Policy - October 14, 2003

Approval by Policy- November 12, 2003

1. Section 4 of the By-law respecting the subdivision of land within the Municipality of the District of Lunenburg is amended by adding immediately after clause (k) the following clause:

“(ka) PROPOSED LOT means any lot being proposed to be created by a plan of subdivision, including a remainder lot.”
2. Part 5 of Subdivision By-law is amended by repealing Section 5.9.
3. Subsection 11.1(11.1.1) of the Subdivision By-law is amended by:
 - a) striking out “The subdivider” in the first line and substituting “A person”;
 - b) immediately after clause (b), by adding the following clause:

“(ba) the unique Parcel Identifier (PID) of all areas of land being subdivided,”;
 - c) in clause (d), immediately after “area of the” by adding “proposed” and immediately after “lots” by striking out “being created”;
 - d) in clause (e), in the first line immediately after “each” an immediately before “lot”, adding “proposed”; and
 - e) in clause (i), in the first line, striking out “lots being created” and substituting “proposed lots” in the first line.
4. Section 11.1 of the Subdivision By-law is amended by repealing Subsection 11.1.2 and substituting the following Subsection:

“11.1.2(a) Where a preliminary plan of subdivision is to be forwarded to the Department of Environment and Labour pursuant to clause 11.2 (11.2.1) (a), the information listed in clause (b) is required for the following proposed lots:

 - i) a proposed lot which is being created for a purpose that will require the construction of an on-site sewage disposal system, or

- ii) a proposed lot being divided from an existing area of land, contains an on-site sewage disposal system, and
 - A) is 900 square metres (96,878.4 square feet) or less in area; or
 - B) has a width of less than 76 metres (249.3 feet).
- (b) Unless the information already has been submitted to the Department of Environment and Labour, the following additional information is required for the proposed lots referred to in clause (a):
 - i) the lot layout including any proposed building, on-site sewage disposal system, driveway and water well,
 - ii) the location of any watercourse, wetland, marine water body and other features that may influence the design of the on-site sewage system, including any ditch, road, driveway or easement,
 - iii) the surface slopes and directions,
 - iv) the location of any test pit,
 - v) the proposed on-site sewage disposal system, selected or designed,
 - vi) an explanation of the extent, volume and type of usage to which the on-site sewage disposal system will be subjected,
 - vii) an assessment report of the lot respecting its suitability to support an on-site sewage disposal system including the results of a soil evaluation test, and
 - viii) any other information necessary to determine whether the subdivision meets the On-site Sewage Disposal Systems Regulations.
- (c) For a proposed lot that is being divided from an existing area of land, contains an existing on-site sewage disposal system and is more than 9000 square metres (96,878.4 square feet) in area with a width of 76 metres (249.3 feet) or more, the lot layout including the location of buildings, driveways, on-site sewage disposal systems and wells shall be provided.
- (d) For a proposed lot 9000 square metres (96,878.4 square feet) or less in area or with a width of less than 76 metres (249.3 feet) that is being created for a purpose that will not require the construction of an on-site

sewage disposal system, the certification section of the application in the form specified in Schedule "A" must be completed."

5. Section 11.2 of the Subdivision By-law is amended by repealing clause 11.2 (11.2.1) (a) and substituting the following clause:

- "a) in areas not serviced by a central sewer system, the Department of Environment and Labour to determine if the lots shown are generally appropriate to meet the On-Site Sewage Disposal Systems Regulations, except where the proposed lot:
- i) is greater than 9000 square metres (96.878.4 square feet), has a width of 76 metres (249.3 feet) or more, and the applicant has indicated on the application that the proposed lot is not intended for a purpose requiring an on-site sewage disposal system, or
 - ii) contains an on-site sewage disposal system and is being increased in size, provided all other proposed lots shown on the plan meet the requirements listed in subclause (i)."

6. Section 11.2 of the Subdivision By-law is amended by adding the following subsection:

"11.2.2 A preliminary plan of subdivision that shows a proposed lot referred to in clause 11.1 (11.1.2) (d) shall be forwarded to the Department of Environment and Labour for confirmation that the Department of Environment & Labour is in agreement that the proposed lot does not require an on-site sewage disposal system."

7. Section 11.4 of the Subdivision By-law is amended by striking out "subdivider" in the fourth line and substituting "applicant".
8. Clause 12.1 (a) of the Subdivision By-law is amended by striking out "the subdivider" and substituting "a person" in the first line.
9. Clause 12.2 (12.2.3) (b) of the Subdivision By-law is amended by renumbering subclause (ii) and (iii) as (iii) and (iv).
10. Clause 12.2 (12.2.3) (b) of the Subdivision By-law is amended by repealing subclause 12.2 (12.2.3) (b) (i) and substituting the following sub clauses:

- "i) in areas not serviced by a central sewer, to determine if the lots shown are generally appropriate to meet the On-Site Sewage Disposal Regulations, except where the proposed lot:
- A) is greater than 9000 square metres (96.878.4 square feet), has a width of 76 metres (249.3 feet) or more, and the

applicant has indicated on the application that the proposed lot is not intended for a purpose requiring an on-site sewage disposal system, or

B) contains an on-site sewage disposal system and is being increased in size, provided all other proposed lots shown on the plan meet the requirements listed in the sub-subclause (A),

ii) where a concept plan shows a proposed lot referred to in clause 11.1 (11.1.2) (d), for confirmation that the Department of Environment and Labour in agreement that the proposed lot does not require an on-site sewage disposal system;”

11. Subsection 12.5 (12.5.1) of the Subdivision By-law is amended by striking out “ subdivider “ in the first line and substituting “applicant”.

12. Subsection 12.5 (12.5.2) of the Subdivision By-law is amended by striking out “subdivider” in the second line and substituting “applicant”.

13. Section 13.1 of the Subdivision By-law is amended by striking out “The subdivider” in the first line and substituting “A person”.

14. Clause 13.2(a) of the Subdivision By-law is amended by repealing subclause (i) and substituting the following subclause:

“ i) in areas not serviced by a central sewer system, to determine compliance with the On-Site Sewage Disposal Systems Regulations, except where the proposed Lot:

A) is greater than 9000 square metres (96,878.4 square feet), has a width of 76 metres (249.3 feet) or more, and the applicant has certified on the application that the proposed lot is not intended for a purpose requiring an on-site sewage disposal system, or

B) contains an on-site sewage disposal system and is being increased in size, provided all other proposed lots shown on the plan meet the requirements of paragraph (A).”

15. Clause 13.2(a) of the Subdivision By-law is amended by adding the following subclause immediately after subclause (ii):

“iii) where a tentative plan shows a proposed lot referred to in clause 14.2.2(d), for confirmation that the Department of Environment is in agreement that the proposed lot does not require an on-site sewage disposal system.”

16. Subsection 13.6 (13.6.1) of the Subdivision By-law is amended by striking out “subdivider” in the first line and substituting “applicant”.
17. Subsection 13.6 (13.6.2) of the Subdivision By-law is amended by striking out “subdivider” in the second line and substituting “applicant”.
18. Subsection 14.2 (14.2.1) of the Subdivision By-law is amended by:
- a) in clause (h), striking out “lots being created, including any remainder lots, and” in the first line and substituting “proposed lot”.
 - b) in clause (i), striking out “to be created” in the first line and substituting “proposed”.
 - c) in clause (k), striking out “being created” in the first line and substituting “proposed”.
 - d) in clause (v), striking out “where Nova Scotia property mapping exists,”.
 - e) in clause (w), striking out “, including remainder lots,” in the first and second lines.
19. Section 14.2 of the Subdivision By-law is amended by repealing Subsection 14.2.2 and adding the following Subsection:
- “14.2.2a) Where a tentative plan of subdivision is to be forwarded to the Department of Environment and Labour pursuant to subclause 13.2(a)(i), the information listed in clause (b) is required for the following proposed lots:
- i) a proposed lot which is being created for a purpose that will require the construction of an on-site sewage disposal system; or
 - ii) a proposed lot being divided from an existing area of land, contains an on-site sewage disposal system; and
 - A) is 9000 square metres (96,878.4 square feet) or less in area; or
 - B) has a width of less than 76 metres (249.3 feet).
 - b) Unless the information already has been submitted to the Department of Environment and Labour, the following additional information is required for proposed lots referred to in clause (a):

- i) the lot layout including any proposed building, on-site sewage disposal system, driveway and water well;
 - ii) the location of any watercourse, wetland, marine water body and other features that may influence the design of the on-site sewage disposal system, including any ditch, road, driveway or easement;
 - iii) the surface slopes and directions;
 - iv) the location of any test pit;
 - v) the proposed on-site sewage disposal system, selected or designed;
 - vi) an explanation of the extent, volume and type of usage to which the on-site sewage disposal system will be subjected;
 - vii) an assessment report of the lot respecting its suitability to support an on-site sewage disposal system including the results of a soil evaluation test; and
 - viii) any other information necessary to determine whether the subdivision meets the On-site Sewage Disposal Systems Regulations.
- c) For a proposed lot that is being divided from an existing area of land, contains an existing on-site sewage disposal system and is more than 9000 square metres (96.878.4 square feet) in area with a width of 76 metres (249.3 feet) or more, the lot layout including the location of buildings, driveways, on-site sewage disposal systems and wells shall be provided.
 - d) For a proposed lot 9000 square metres (96.878.4 square feet) or less in area or with a width of less than 76 metres (249.3 feet) that is being created for a purpose that will not require the construction of an on-site sewage disposal system, the certification section of the application in the form specified in Schedule "A" must be completed."
20. Section 15.2 of the Subdivision By-law is amended by adding "in different ownerships" immediately after "areas of land" in the first line.
21. Clause 15.4 (a) of the Subdivision By-law is amended by:
- a) repealing subclause (i) and substituting the following subclause:
 - "i) in areas not served by a central sewer, the Department of Environment and Labour to determine compliance with the On-site Sewage Disposal Systems Regulations, except where the proposed lot:

- A) is greater than 9000 square metres (96.878.4 square feet), has a width of 76 metres (249.3 feet) or more, and the applicant has certified on the application that the proposed lot is not intended for a purpose requiring an on-site sewage disposal system, or
 - B) contains an on-site sewage disposal system and is being increased in size, provided all other proposed lots shown on the plan meet the requirements listed in sub-subclause (A);”
- b) adding the following subclause immediately after subclause (ii):
- “iii) where a final plan shows a proposed lot referred to in clause 16.2.2 (d), for confirmation that the Department of Environment and Labour is in agreement that the proposed lot does not require an on-site sewage disposal system.”
22. Subsection 16.2 (16.2.1) of the Subdivision /By-law is amended by:
- a) in clause (g), adding “proposed” immediately after “area of the” in the first line, and striking out “being created, including any remainder lots”.
 - b) in clause (i), adding “proposed” immediately after “each” in the first line, and striking out “being created” in the first line.
 - c) in clause (k) adding “proposed” immediately after “boundaries of” in the first line and striking out “being created” in the first line.
 - d) in clause (w), striking out “where Nova Scotia property mapping exists” in the first line.
 - e) in clause (y), striking out “including remainders” in the first and second line.
23. Section 16.2 of the Subdivision By-law is amended by repealing subsection 16.2.2 and substituting the following subsection:
- “16.2.2a) Where a final plan of subdivision is to be forwarded to the Department of Environment and Labour pursuant to clause 15.4 (a)(i), the information listed in clause (b) is required for the following proposed lots:
- i) a proposed lot which is being created for a purpose that will require the construction of an on-site sewage disposal system; or
 - ii) a proposed lot being divided from an existing area of land, contains an on-site sewage disposal system; and

- A) is 9000 square metres (96.878.4 square feet) or less in area;
or
 - B) has a width of less than 76 metres (249.3 feet)
- b) Unless the information already has been submitted to the Department of Environment and Labour, the following additional information is required for proposed lots referred to in clause (a):
- i) the lot layout including any proposed building, on-site sewage disposal system, driveway and water well;
 - ii) the location of any watercourse, wetland, marine water body and other feature that may influence the design of the on-site sewage disposal system, including any ditch, road, driveway or easement;
 - iii) the surface slopes and directions;
 - iv) the location of any test pit;
 - v) the proposed on-site sewage disposal system, selected or designed;
 - vi) an explanation of the extent, volume and type of usage to which the on-site sewage disposal system will be subjected;
 - vii) an assessment report of the lot respecting its suitability to support an on-site sewage disposal system including the results of a soil evaluation test; and
 - viii) any other information necessary to determine whether the subdivision meets the On-Site Sewage Disposal Systems Regulations.
- c) For a proposed lot that is being divided from an existing area of land, contains an existing on-site sewage disposal system and is more than 9000 square metres (96.878.4 square feet) in area with a width of 76 metres (249.3 feet) or more, the lot layout including buildings, driveway, on-site sewage disposal system and well shall be provided.
- d) For a proposed lot 9000 square metres (96.878.4 square feet) or less in area or with a width of less than 76 metres (249.3 feet) that is being created for a purpose that will not require the construction of an on-site sewage disposal system, the certification section of the application in the form specified in Schedule "A" must be completed.

24. The Subdivision By-law is amended throughout by striking out “Department of Environment” where it appears throughout and substituting “Department of Environment and Labour”.

MUNICIPALITY OF THE DISTRICT OF LUNENBURG

POLICY MDL-25

A POLCY TO AMEND THE ENGINEERING SPECIFICATIONS FOR PUBLIC HIGHWAYS

Effective June 1, 2004

1. This Policy is entitled “A Policy to Amend the Engineering Specifications of the By-law Respecting the Subdivision of Land within the Municipality of the District of Lunenburg”.
2. This policy amends the By-law Respecting the Subdivision of Land within the Municipality of the District of Lunenburg, as follows:
 - a) Clause 14.3 (b) of the Subdivision By-law is amended by:
 - i) striking out subclause (ii) and substituting subclause (ii) as follows:

“(ii) drainage design plans and details in accordance with the requirements of Schedule H, as applicable, and ”; and
 - ii) striking out subclause (iii) and substituting subclause (iii) as follows:

“(iii) road designs, profiles and details in accordance with the requirements of Schedule H”; and
 - iii) striking out subclause (iv)
 - b) Clause 16.2 (16.2.3) (a) is amended by:
 - i) striking out subsclause (ii) and substituting subclause (ii) as follows:

“(ii) drainage design plans in accordance with the requirements of Schedule H, and:”
 - ii) striking out subclause (iii) and substituting subclause (iii) as follows:

“(iii) road designs and profiles in accordance with the submission requirements of Schedule H”
 - iii) striking out subclause (iv)
 - c) The Subdivision By-law is amended by striking out Schedule H and substituting Schedule H as follows:

SCHEDULE H

MUNICIPAL PUBLIC ROAD DESIGN AND CONSTRUCTION STANDARD

1.0 GENERAL

The following are the minimum road standards for municipal public roads (i.e. municipal streets and roadways) in the Municipality. In every case, roadway designs will be prepared by a qualified professional engineer licensed to practice in the Province of Nova Scotia. All roadway design drawings and roadway construction will be subject to approval by the Municipal Engineer. No roadway will be considered a municipal public road unless stamped engineered drawings, designed to standard, and related survey plans, are approved, and construction of the roadway is completed in accordance with such approved drawings.

Existing provincial public roadways transferred, by law, from the Province of Nova Scotia to the Municipality, will not be subject to these road standards.

Requirements in excess of the minimum standards may be necessary for certain roadways, subject to the Municipal Engineer's discretion.

Submitted drawings will include:

legal survey plans showing property boundaries, and proposed rights-of-way and easements;

topographic contour drawings, to minimum 2 m (6.56') intervals, within the project area, and to minimum 5 m (16.40') within the contributing drainage area outside the project area;

road and drainage design plans and profile drawings, with preferred metric scales at 1:100 or 1:250 – horizontal, and 1:10 or 1:25 – vertical, with each drawing stamped, signed and dated by the professional engineer responsible for its preparation;

and, all other details of structures, equipment and appurtenances, including manufacturer's and fabricator's shop drawings, and material and equipment test reports, necessary for the Municipal Engineer in his or her sole discretion to properly complete the review of the roadway project design and construction.

Submitted drawings will be clearly drawn and annotated, to scale, and include a title block with appropriate project information and location, and professional engineer and subdivision applicant identification. No drawing sheet in the drawing set will be larger than 1.0 m² (ANSI E size).

Drawing sets will be submitted in both paper form and electronic data, with electronic data in either the *.dwg, *.dxf or IGES file format, and will be on electronic data media that can be read by Municipality personal computer equipment.

In this Standard, regulatory dimensions or are stated in metric; US customary units are provided for convenience only. The use of metric (Systeme International – S.I.) units in engineering design submissions is preferred, however, use of U.S. customary units is acceptable.

2.0 TECHNICAL REFERENCES

The following technical references are noted in these Standards:

2.1 “Geometric Design Guide for Canadian Roads”, September 1999, latest revision, issued by the Transportation Association of Canada.

2.2 “Uniform Traffic Control Devices for Canada”, March 1994, latest revision, issued by the Transportation Association of Canada.

2.3 “Standard Specifications for Municipal Services”, January 2003, latest revision, issued by the Joint Committee on Contract Documents of the Nova Scotia Road Builders Association and the Nova Scotia Consulting Engineers Association.

2.4 “Nova Scotia Department of Transportation Metric Standard Specification Book”, January 1994, latest revision, issued by the Nova Scotia Department of Transportation and Public Works.

2.5 “Guidelines for Residential Subdivision Street Design”, recommended practice, 1997, Institute of Transportation Engineers.

2.6 “Erosion and Sedimentation Control Handbook for Construction Sites”, 1988, Nova Scotia Department of Environment and Labour.

2.7 “Canadian Highway Bridge Design Code”, CAN/CSA-S6-00, latest revision.

2.8 “Urban Hydrology for Small Watersheds, TR-55”, Technical Release 55, June 1986, United States Department of Agriculture, Natural Resources Conservation Service.

2.9 “Standards for Concrete Pipe”, CAN/CSA-A257-Series-M92, latest revision.

2.10 “Thermoplastic Pressure Piping Compendium”, CAN/CSA-B137-Series-02, latest revision.

2.11 “Corrugated Steel Pipe Products”, CAN/CSA-G401-01, latest revision.

3.0 ROAD CLASS DESIGNATION

Municipal public roads will be designed according to one of the following road design classes:

- low volume rural road (LVR)
- rural local undivided road (RLU)
- rural collector undivided (RCU)

3.1 Low Volume Rural Road – LVR

Municipal roads will be classed as low-volume rural roads where the Average Annual Daily Traffic count hereafter referred to as AADT is forecast to be less than 300 vehicles per day, and all traffic has an origin or destination along the roadway length (i.e. no through traffic).

3.2 Rural Local Undivided Road – RLU

Municipal roads will be classed as rural local undivided roads where the AADT is forecast to be less than 600 vehicles per day.

3.3 Rural Collector Undivided Road – RCU

Municipal roads will be classed as rural collector undivided roads where the AADT exceeds 600 vehicles or more per day. For RCU roads, special design requirements, specific to each case, if any, will be established, by the Municipal Engineer.

3.4 Average Annual Daily Traffic Estimation

At the Municipal Engineer's sole discretion, submission of road design trip generation calculations will be required in order to support the AADT forecast necessary to determine road classification. In any case, the Municipal Engineer will determine and approve the road classification.

3.5 Design Speed

Unless lower design speeds are specified by the Municipal Engineer, based upon the projected use of the roadway, design speeds for road classes will be as follows:

LVR 50 km/hr

RLU 70 km/hr

RCU 70 km/hr

4.0 ALIGNMENT CONTROLS

Design controls for horizontal and vertical road alignment will be for the design speeds as per the assigned road class in sub-section 3.5, and will be in accordance with the Geometric Design Guide for Canadian Roads.

4.1 Minimum Stopping Sight Distance

Minimum stopping sight distances will be:

- a) for 50 km/hr design speed 65m (213ft)
- b) for 70 km/hr design speed 110m (360ft)

Engineering plan drawings will indicate the start and end points, and turning radii for all horizontal curves. Engineering profile drawings will indicate the start and end points for all vertical curves, slopes for all changes in direction and the K value for all crest and sag vertical curves.

Both plan and profile drawings will clearly show road length stations.

4.2 Maximum Vertical Gradients

Maximum vertical gradients will be:

for LVR 10%

for RLU & RCU 6%

4.3 Intersections with Existing Roads

4.3.1 Horizontal Approach

Roadway intersections with existing municipal roadways will have intersection angles at no less than 70 degrees and no greater than 110 degrees to the existing municipal roadway.

Roadway intersections with existing provincial roadways will be subject to the approval of the Nova Scotia Department of Transportation and Public Works.

4.3.2 Vertical Approach

Roadway gradient adjustments for intersections with existing municipal roadways will be designed in accordance with the Geometric Design Guide for Canadian Roads.

Roadway intersections with existing provincial roadways will be subject to the approval of the Nova Scotia Department of Transportation and Public Works.

4.4 Intersections for New Roads

New intersections will be designed in accordance with the Geometric Design Guide for Canadian Roads.

4.5 Cul-de-Sac Design

Culs-de-sac will be placed at the end of all dead-end streets. The geometric layout will be, at a minimum, as per attached drawing H – 1.

All culs-de-sac will be constructed to applicable minimum road standards.

4.6 Reserve Road Allowances

As required by this By-law, all subdivisions will provide for a reserve road allowance for future extension of the public road to the boundaries of an adjacent lot or watercourse, at minimum intervals of 400 metres (1,312.34'), as determined to be feasible at the sole discretion of the Municipal Engineer.

4.7 Road and Driveway Layout

Road layout design will optimize use of materials and future maintenance without compromising safety, the surrounding natural environment, or the convenience of access to the properties served by the road network. The Municipal Engineer will review submitted designs and assess the life-cycle economy provided by such designs. Generally, the Municipal Engineer will approve a road layout design that will result in optimal future maintenance costs, and reduced environmental impact. Guidance in road layout design is available through several publications of the Transportation Association of Canada and the Institute of Transportation Engineers, including the technical documents referenced in Section 2 of this Standard.

Residential driveway access design will conform to the recommendations contained in the "Guidelines for Residential Subdivision Street Design". Where the road traffic will consist of a mix of residential, commercial and/or industrial traffic volumes, the Municipal Engineer may, at his or her sole opinion, specify other driveway design requirements.

Driveway locations will be shown on the submitted plan drawings.

5.0 CROSS-SECTION CONTROLS

Cross-section controls refer to the cross-sectional geometry of the roadway. Roadways of LVR and RLU class are, at a minimum, to be gravel-surfaced, minimum two-lane, with open drainage ditches for collection and disposal of storm water. Roadways of RCU class will be surfaced with asphalt concrete, with minimum cross-section controls and drainage systems as determined by the Municipal Engineer at his or her sole discretion.

5.1 Minimum Right-of-Way Width

The minimum right-of-way width for all municipal public roads will be 20 m (65.62'), assuming maximum drainage ditch back slopes can be accommodated. Where the maximum drainage ditch back slopes cannot be accommodated, the right-of-way shall be determined by the Municipal Engineer at his or her sole discretion.

Where a road right-of-way concerned is less than 20 m and the road is a private road subject to a municipal takeover of ownership, the Municipal Engineer may specify special engineering criteria regarding the placement of the road and drainage infrastructure within the confined right-of-way, without requiring widening of the right-of-way to the standard width.

5.2 Minimum Cross-Section Criteria

Road Class	Roadway width, incl <u>shoulder</u>	Cut side slope, earth <u>run:rise</u>	Backslope earth, <u>run:rise</u>	Fill side slope earth, <u>run:rise</u>
LVR	8.60m (28.21')	2:1	1:5:1	2:1
RLU	9.75m (32.00')	3:1	2:1	3:1
RCU	Minimum criteria to be determined by Municipal Engineer, but at least equal to RLU			

5.3 Guard Rails

Guard rails will be placed where prudent road safety engineering practice dictates, as determined at the sole discretion of the Municipal Engineer. If guard rails are placed, fill side slopes for RLU and RCU class can be reduced to 2:1. Where guard rails are placed, roadway width is to be increased by a minimum of 0.5m (1'8"), adjacent the guard rail. Guard rail installation will be as per the Nova Scotia Department of Transportation and Public Works Standard Specification Book.

5.4 Rock Slopes

Back slopes in rock are maximum 1:4 for all road classes. Fill side slopes in rock are 1.5:1 with guard rail for all classes. Without guard rail, fill side slopes in rock are the same as for earth fill slopes as per road class.

5.5 Roadway Surface Slope

Generally, the roadway surface is to be crowned in the centre, with a 3% slope towards each drainage ditch, for gravel-surfaced roads, and a 2% slope towards each roadside drainage structure for asphalt concrete surfaced roads. Exceptions can occur where superelevations are required to accommodate turning radii or intersection alignment, or where hydraulic analysis indicates a greater crown slope is required.

5.6 Design for Wide-Turning Vehicles

Where it is expected that wide-turning vehicles (trucks) may be occasionally encountered on the road, adjustments to roadway width, particularly at turns, may be required, in conformance with the Geometric Design Guide for Canadian Roads.

5.7 Retaining Walls

Other than undisturbed, or otherwise stable, naturally-occurring rock faces, all exposed vertical cuts of soil in the road right-of-way will be stabilized and prevented from failure by a retaining wall, of sufficient height and strength, where a cut slope conforming to the requirements of Sub-section 5.2 is uneconomic. The design and the construction inspection of retaining walls will be prepared by and directed through a professional engineer, licensed in the province of Nova Scotia, and competent in the field of structural engineering. The design will be subject to the review and approval of the Municipal Engineer, in his or her sole discretion.

6.0 ROADBED CONSTRUCTION

6.1 Earthwork, Grubbing, Excavation, Compacted Fills, Retaining Structures

Preparation of road sub-grade and related works will be as per the Standard Specifications for Municipal Services. The Municipal Engineer may request geotechnical test reports regarding the bearing capacity of the in'situ subgrade material, as well as other relevant geotechnical information, at the Engineer's sole discretion.

6.2 Base Gravel Course

For LVR and RLU road classes:

A minimum of 200 mm (8") of Nova Scotia Department of Transportation and Public Works Class "E" material will be placed and compacted to approved grade, as per the Standard Specifications for Municipal Services. The material will meet the specification of the Nova Scotia Department of Transportation and Public Works, as per the Standard Specification Book, and will meet the sulphide content limits of the Sulphide-Bearing Material Disposal Regulations of the Nova Scotia Department of Environment and Labour.

For RCU road class:

The minimum base gravel course specification will be determined at the sole discretion of the Municipal Engineer, but in all cases will at least equal that of the LVR and RLU roads classes.

6.3 Surface Course

For LVR and RLU road classes:

A minimum of 100 mm (4") of Nova Scotia Department of Transportation and Public Works Class A material will be placed and compacted to approved grade, as per the Standard Specifications for Municipal Services. The material will meet the specification of Nova Scotia Department of Transportation and Public Works, as per the Standard Specification Book and will meet the sulphide content limits of the Sulphide-Bearing Material Disposal Regulations of the Nova Scotia Department of Environment and Labour.

For RCU road class:

The minimum top gravel course specification will be determined at the sole discretion the Municipal Engineer, but in all cases will at least equal that of the LVR and RLU roads classes.

RCU roads will be overlain by an asphalt concrete pavement surface of a minimum thickness of 100 mm (4") of which 63 mm (2.5") will consist of a Type B base course asphalt concrete, and 37 mm (1.5") will consist of a Type C surface course asphalt. Required thicknesses and composition of the asphalt concrete pavement may be greater than minimum as determined at the sole discretion of the Municipal Engineer. Material and construction specification will be as per the Nova Scotia Department of Transportation and Public Works Standard Specification Book, and the Standard Specifications for Municipal Services.

6.4 Erosion Control and Prevention

Minimum erosion control and prevention measures will be as per the Standard Specifications for Municipal Services, and the Erosion and Sedimentation Control Handbook for Construction Sites.

6.5 Municipal Inspections and Approval of Construction

Municipal inspections will occur, at a minimum, by appointment, i) prior to construction; ii) after clearing and grubbing; iii) during placement of drainage culverts and structures; iv) after placement of base gravel; v) after placement of surface gravel; and, vi) during placement of asphalt concrete pavement (where required).

Municipal inspections are not a substitute for the proponent's on-going quality control of the construction of the roadway. All proponents of roadway development and construction will require continuous, independent quality control inspection of the construction of the proposed works under the direct supervision of a named professional engineer, licensed to practice in the Province of Nova Scotia, and competent in the field of civil engineering.

Municipal Engineer's approval will be given only for construction in accordance with approved plans.

No final approval of the constructed works will be given unless complete record drawings and satisfactory test results have been submitted to and approved by, the Municipal Engineer.

7.0 STORM WATER DRAINAGE

7.1 General

All lands serviced by the proposed roadway system will be serviced by a drainage system. Which will consist of such open ditches and closed conduits as required to collect and remove storm water from at least a one in 25 year storm event, for LVR and RLU class roads, and at least a 1 in 100 year storm event for RCU class roads. The Municipal Engineer may specify a greater return period storm event where infrastructure and/or property are at greater risk of damage due to flooding, or due to the critical service nature of the affected infrastructure and/or property. Rainfall intensity curves to be used for specified return periods will be based on the most recent Environment Canada trending data available for Shearwater, Nova Scotia, adjusted for local meteorological conditions.

All ditches and conduits will be placed in the municipal road right-of-way, or a storm utility easement, identified as such in the submitted plans. Storm utility easements are to be a minimum of 9.144m (30'), unless otherwise approved by the Municipal Engineer. In any case, easements must be of sufficient width to permit safe and efficient public works maintenance operations within the easement.

7.2 Nova Scotia Department of Environment and Labour Approval; Other Agency Approvals

Design and construction of all storm water drainage systems will be in compliance with the Storm Drainage Works Approval issued by the Nova Scotia Department of the Environment and Labour. No construction will take place unless such approval is received in compliance with the Activities Designation Regulations of the Nova Scotia Department of Environment and Labour.

Depending on the nature of the works proposed, approvals may also be required from other public agencies and public and private utilities, including, but not limited, to the Nova Scotia Department of Transportation and Public Works, the Nova Scotia Department of Natural Resources, Fisheries and Oceans Canada, the Canadian Coast Guard (Navigable Waters Protection Act section), Nova Scotia Power Inc., Aliant Telecom and other municipal units. The obtention of these approvals is the responsibility of the subdivision applicant. No construction will take place unless all necessary approvals have been received.

7.3 Acceptable Drainage Structures

The type and placement of culverts, conduits and drainage ditches will be clearly shown on all engineering drawings. Acceptable culvert and conduit materials include concrete Class III pipe to CAN/CSA-A257 Series-M92, PVC and HDPE pipe, complete with smooth interior surface and ribbed exterior, to CAN/CSA-B137 Series-02, and corrosion-resistant corrugated metal pipe, to CAN/CSA-G401-01, where same will be placed in soil conditions that will not promote accelerated corrosion. Other culvert and conduit structures are acceptable pending Municipal Engineer's approval of their appropriate structural and hydraulic characteristics, and their life-cycle economic maintenance.

7.4 Structural Design

All culvert and conduit structures will be of sufficient design and strength to resist soil, hydraulic, earthquake, temperature, traffic and other environmental loads reasonably anticipated to be imposed upon them.

Structural design calculations and drawings will be submitted for the Municipal Engineer's approval for all drainage structures spanning in excess of 1.5 m (4.92') at their greatest cross-sectional extent (i.e. distance between supports or maximum distance between structure sidewalls). Such calculations and drawings will be prepared by a professional engineer, licensed in the Province of Nova Scotia, and competent in the field of structural engineering. A geotechnical report regarding the soil conditions in the location of the proposed drainage structure(s) will be submitted upon request of the Municipal Engineer. Such geotechnical report will be prepared by a professional engineer, licensed in the Province of Nova Scotia, and competent in the field of geotechnical engineering.

Drainage structures with a span greater than 2.5 m (8.20') and subject to traffic or pedestrian loading will be designed and constructed in accordance with the Canadian Highway Bridge Design Code, CAN/CSA – S6-00. Such design and construction inspection and supervision, will be prepared by and directed through a professional engineer, licensed in the Province of Nova Scotia, and competent in the field of structural engineering.

7.5 Hydrology and Hydraulic Design

Hydraulic calculations can be based on the Rational Method, where the contributing drainage area for the designed drainage system is estimated to be 40 hectares or less (98.84 acres), or storm water detention is not required. Otherwise, flow calculations must be developed from storm water management modeling using TR-55 hydrologic methods, or another equivalent method recognized in civil engineering practice.

Hydraulic calculations and designs will include complete topographical information regarding structure inverts, crowns, head water and tail water elevations and, where applicable, backwater elevations, throughout the proposed system.

All drainage culverts, conduits and other structures will be constructed with headwalls and tail walls of approved design, and of stable and durable material, including stone, concrete, pressure-treated wood

cribbing, and pre-manufactured plastic and metal assemblies. Where appropriate, security screening at culvert openings may be specified at the sole discretion the Municipal Engineer.

All culverts and drainage structures with a span greater than 1.5 m (4.92') will include bevelled edge entries, smooth inlet transition and smooth interior surface throughout the flow length.

Hydraulic calculations and designs will be prepared by, and the construction inspection of structures directed through, a professional engineer, licensed in the Province of Nova Scotia, and competent in the field of civil engineering.

Hydraulic calculations will be submitted for review and approval by the Municipal Engineer.

7.6 Watercourse Alterations, Detention Pond Design and Storm Water Disposal

All necessary watercourse alteration permits and approvals required from the Nova Scotia Department of the Environment and Labour, and all other relevant agencies and departments, will be obtained prior to construction and presented to the Municipal Engineer.

All detention pond designs will clearly state the pond dimensions, the volume of water retained during the specified return storm period, the minimum freeboard available at the specified return storm period, the location of the outfall, the anticipated flow and impact on the receiving watercourse and the security features of the structure to prevent unauthorized access.

All storm water drainage systems will drain to a public watercourse with flow and water quality in compliance with the approval issued by the Nova Scotia Department of Environment and Labour.

No storm water drainage system will be acceptable to the Municipal Engineer where, in his or her sole opinion the disposal location of collected storm water negatively impacts the receiving environment or can create property damage.

7.7 Construction Methods

Installation of culverts, conduits and ditches, and related appurtenances will be at a minimum as per the Standard Specifications for Municipal Services. Other requirements shall be as determined at the sole discretion of the Municipal Engineer.

8.0 ROAD SIGNAGE

All road signage, signals and markings will be in accordance with the Uniform Traffic Control Devices for Canada manual and the Nova Scotia Traffic Signs Regulations. All road signage will be placed in the right-of-way, subject to approval by the Municipal Engineer. No signage will be placed in the municipal right-of-way without the prior approval of the Municipal Engineer.

8.1 Stop Signs

Stop signs will be placed within 5m (16') of all intersections, at the minor leg approaches. Intersections with equal traffic for all approaches may be designated as a four way stop, subject to approval by the Municipal Engineer.

8.2 Traffic Signals

If traffic volumes indicate electrified traffic signals are necessary, a traffic signal warrant will be submitted for approval by the Municipal Engineer.

8.3 Road Names

All municipal public road names will be approved by Municipal Council prior to final approval being given by the Development Officer.

8.4 Road Name Signage

Road name signage will be placed for each road intersection.

8.5 Other Road Signage

Other directional, speed rating and cautionary signage will be placed in the right-of-way, as warranted, in the sole discretion of the Municipal Engineer.

Information or advertising signage will be placed in the right-of-way only with the approval of the Municipal Engineer, and only to such specifications, and terms and conditions, as directed.

8.6 Signage Material

8.6.1 Signs

Signs will be made of plate or extruded anodized aluminum, with high-intensity grade reflective vinyl markings. Signage will be securely fixed to posts.

Street name signs will generally consist of all the letters of the primary street name, with the letters made from 100mm (4") black vinyl marking stock, applied to extruded aluminum plate covered with white, high-intensity grade reflective vinyl material. All letters will be capitalized.

Other highway signage will generally be made from highway sign grade aluminum plate with high-intensity vinyl reflective markings. Minimum size of sign will conform to the Uniform Traffic Control Devices for Canada manual, and the Nova Scotia Traffic Signs Regulations.

8.6.2 Posts

Generally, roadside marking posts will be of galvanized, perforated steel, of nominal 51 mm X 51 mm members; including galvanized steel post anchors and sleeves. Posts will be placed a minimum of 600 mm (23.6") in firm ground and in all cases will be designed and constructed to securely hold all signs and signals upright, and resist loading due to wind, snow, temperature and other environmental factors. All sign anchors and fasteners will be of galvanized steel or anodized aluminum.

There will be special structural requirements for sign assemblies that have an exposed sign area of greater than 0.675 m² (7.27 ft²), with approval of the assembly design and construction subject to approval by the Municipal Engineer.

Annotation for Policy Book

Date of Notice to Council Members of intent
to consider: January 13, 2004

Date of Passage: February 10, 2004
Effective Date: June 1, 2004

I certify that this Policy was adopted by Council as indicated above.

Chief Administrative Officer Date