### 3. COLTA / HUGA CONNECTIONS - PRELIMINARY

### 3.1 COLTA

The Chain of Lakes Trail Association (COLTA) trail, formerly identified as the Chester Spur Line, was completed and opened for use in June 2011. The trail currently extends from its north end on Joseph Howe Avenue near the Fairview interchange, southwest to the beginning of the Beechville / Lakeside / Timberlea Trail as a paved asphalt multi-use trail. As a former rail line, the route has relatively few roadway or intersection crossings along its length. Notable exceptions within the study area include the Dutch Village Road / Bayers Road intersection, the ramps to Highway 102, Springvale Avenue and Brook Street further to the south.

### 3.2 HUGA

The Halifax Urban Greenway Association (HUGA) trail is an important component of Halifax Regional Municipality's envisioned future Active Transportation (AT) network. The originally proposed HUGA trail was intended to run along the apron of the CN rail cut between Point Pleasant Park and Chebucto Road, providing an attractive environment and functional connection for Active Transportation users. HRM has indicated that the HUGA trail will extend north of the previously envisioned terminus at Chebucto Road to a location close to the Fairview Overpass. The details of the alignment associated with this extension are discussed in greater detail in the functional design sections of this report.

With Phase 1 of the Halifax Urban Greenway Association Trail (between South Street and Roxton Road) complete, the next stages of development will likely be the portion of the trail north of South Street. Based on a review of the HUGA Trail Proposal and preliminary site investigations, it is evident that development of the portion of the trail between South Street and Chebucto Road will be much more challenging than the portion south of South Street. Rugged terrain, steep slopes, private property encroachment, and road crossings will inevitably make construction of the trail a challenging undertaking. However, it appears that despite the challenges, good potential exists for completion of the trail.

### 3.3 CONNECTIVITY

From the perspective of overall AT connectivity, linking the HUGA and COLTA trails is important in providing a link between peninsular Halifax and outlying points in Halifax Regional Municipality. The proposed extension of the HUGA trail beyond Chebucto Road along the CN Rail right-of-way results in the COLTA and HUGA trails running essentially parallel to each other between the Armdale Roundabout area and the Fairview overpass, which opens up a number of connectivity possibilities as discussed in greater detail in subsequent sections of this report.



The following sections discuss:

- the initial connectivity alternatives that were identified and evaluated;
- preferred and recommended alternatives; and,
- functional design details for the preferred alternatives.

### 3.4 IDENTIFICATION AND EVALUATION OF ALTERNATIVES

Two initial primary routes were identified to link the COLTA trail with the HUGA trail. The first option generally connected the COLTA trail to a HUGA connection at Chebucto Road via the Armdale Roundabout. The second option connected the two trails further to the north in the vicinity of Mumford Road and the West End Mall. Each option had a number of possible variations and had to consider a diverse set of advantages and disadvantages.

## 3.4.1 Option #1 - Between Armdale Roundabout and HUGA Trail

The Armdale Roundabout was an obvious consideration to facilitate a connection of the COLTA trail to the HUGA trail as it is a hub for several transportation routes in and out of the Halifax core, and is in close proximity the original Chebucto terminus of the HUGA trail. The recently re-designed roundabout is capable of accommodating pedestrians and cyclists, with sidewalks that are multi-use trail width and have bicycle exit ramps that



accommodate movements from roadway to trail (See Figure 3-1).

Figure 3-1: Armdale Roundabout

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The roundabout provided direct access to Chebucto Road and Quinpool Road, both of which intersect with the rail cut corridor in areas intended for use in the HUGA trail. As a result, two separate preliminary routes were identified through the Armdale Roundabout: one to Chebucto Road and one to Quinpool Road. Figure 3-2 shows a rough layout of the location considered for each option. Each had good potential for connection to the HUGA trail, although there are challenges due to the necessary road crossings at each of the major arterial roads. Use of CN Rail property, rail cut crossing structures, and steep grades accessing rail cut are were all identified as important considerations.



Figure 3-2: HUGA Trail Connections through Armdale Roundabout

### 3.4.2 Option #1 - Between COLTA Trail and Armdale Roundabout

The area between the Armdale Roundabout and the COLTA trail is relatively rugged with considerable grade changes and dense development along narrow streets. Area traffic volumes can be significant approaching the roundabout, particularly on Joseph Howe Drive and St. Margaret's Bay Road, though many connecting roads experience relatively high volumes from direct local traffic and, in some cases, traffic that is shortcutting through the neighbourhoods. Crown drive was identified as a specific example of this.

Preliminary routes were identified for consideration along Crown Drive and Keating Road, both of which feed onto St. Margaret's Bay Road and the nearby Armdale Roundabout. Figure 3-3 on the following page shows the two separate routes from Crown Drive (blue line) and Keating Road (green line).



It should also be noted that an alternative route to the Armdale Roundabout along the west side of the St. James Anglican Church was investigated. This route was eliminated due to the steep grades, cost implications, absence of right-of-way or easements, and safety / security concerns.

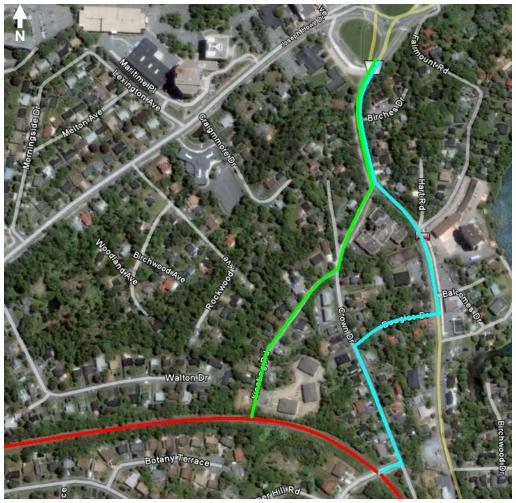


Figure 3-3: HUGA Trail Connection Options – COLTA to Bay Road

#### **Crown Drive**

The COLTA trail intersects Brook Street at a mid-block crossing location approximately 30 metres west of Crown Drive. The intersection of the trail with Crown Drive has been reconstructed as part of the development of the COLTA trail. Alternatives included the use of Crown Drive directly to Bay Road, or upgrading Douglas Drive between Crown Drive and Bay Road.

Douglas Drive is approximately 150m from the Crown Drive / Brook Street intersection, where a set of steps is present and potential exists for a sloped path (see Figure 3-4). The stairs on Douglas Drive could be replaced with a ramp, though it is likely that a



Figure 3-4: Douglas Drive Stairway

switchback type arrangement would be required to resolve the grade difference while meeting maximum recommended slopes. The use of ramps and landings would have to be carefully considered and some minor land acquisition may be required close to Crown Drive.

This route provides connection to St. Margaret's Bay Road, which has been recently upgraded to include more accommodating lane and sidewalk widths, and which Halifax Regional Municipality has identified as a preferred route for the active transportation connection. Douglas Drive also has the advantage that it is in close proximity to a pedestrian crosswalk across St. Margaret's Bay Road.

A significant limitation to the feasibility of this route is the use of Crown Drive, which has relatively high traffic volumes, is quite narrow and currently accommodates parking. There is limited opportunity for widening of the roadway or overall cross section for sidewalks or trails due to the proximity of houses adjacent to the roadway. These were strongly identified by various parties including HRM and the public at a public open house meeting that was held as part of the development of the COLTA trail. Ultimately, all options that include Crown Drive as connector were eliminated from consideration as advised by HRM.

### **Keating Road**

Halifax Regional Municipality has previously considered this location as a connection for planning purposes. The cul-de-sac has potential for connection to the COLTA trail, as grades are reasonable and traffic volumes are light. A worn path was is currently present between the COLTA trail and cul-du-sac (see Figure 3-5). Keating Road intersects at Crown Drive and continues directly to St. Margaret's Bay Road.

Keating Road does not current have sidewalks, though it has been noted that the roadway is used regularly by pedestrians and cyclists. Upgrading the connection between the COLTA



Figure 3-5: Keating Road Connection

trail and Keating Road is relatively straight forward work and will require some minor regrading and clearing, and transition areas at the ends of the trail at Keating Road and the COLTA trail.

It is recommended that the connection between Keating Road and the COLTA tail be formalized through some limited clearing of vegetation to achieve a full asphalt paved trail width. The connection should be supported through the implementation of appropriate signage. Further discussion with HRM suggested that further development of the corridor along Keating Road and Crown Drive should not be further pursued due to the challenges volumes and right-of-way challenges present along Crown Drive and the high volumes of traffic and grades on Bay Road.

### 3.4.3 Option #2 – Fairmount Connection to West End Mall

The second connection alternative for the COLTA trail was located further north in the vicinity of Mumford Road. This connection location is facilitated by the future extension of the HUGA trail along the rail cut north beyond Chebucto Road. This results in the HUGA trail passing adjacent to the West End Mall near Mumford Road.

The COLTA trail runs through Fairmount area and intersects with a number of side streets off of Joseph Howe Drive including Walton Drive, Rosemount Avenue, Retreat Avenue, and Springvale Avenue. Springvale Avenue was identified as the most feasible and preferred connection from the trail to Joseph Howe Drive. Springvale Avenue intersects Joseph Howe Drive at a signalized intersection which includes full pedestrian crossing accommodation allowing pedestrians and cyclists to cross from Springvale to Murdoch Avenue. From Joseph Howe Drive, alternatives were considerer through the Mount Olivet Cemetery via Murdoch Avenue, and along Mumford Road / Olivet Street.



The Mumford Road option results in the majority of the route being an on-road facility for cyclists. Due to the volumes on Joseph Howe Drive and Mumford Road, this option was not considered favourable by HRM, SLI, or by the public as expressed at the public open house.

Conversely, the option through the Mount Olivet Cemetery was considered an opportunity and HRM has confirmed that the use of the Cemetery is acceptable. The Cemetery, which is privately owned, is an appealing green space connection from Joseph Howe Drive to Olivet Street in the general vicinity of the West End Mall. The cemetery contains many historically significant internments (Halifax Explosion / Titanic), has an existing direct pathway / roadway through the cemetery, and can accommodate connections at both ends of the route. Both the Mumford Road and Mount Olivet Cemetery options are shown in Figure 3-6.



Figure 3-6: COLTA Trail Connection to HUGA at West End Mall

The route will require connecting across private residential lands between Olivet Street and CN Rail corridor where the proposed HUGA trail will be accommodated. The preferred option for crossing these lands appears to be along the west side of the building as it forms a relatively direct route between a connection from the Cemetery and a potential crossing location across the CN Rail lines.

It is evident that this CN Rail crossing location has some demand, as the fence has been cut numerous times and a path has been clearly worn across the rail right-of-way. Given that the HUGA trail runs parallel to the string of buildings adjacent to the rail right-of-way, additional connection points between the HUGA trail and the individual buildings may be considered.

### 3.4.4 Between HUGA and the West End Mall

While this connection and possible extension through the Wal-Mart parking lot was considered to be outside of the scope of work under this project, it was identified as a logical extension of the connection between the COLTA and HUGA trails. This connection would directly connect a major residential area with a primary commercial retail area, which includes amenities such as:

- Major Big Box retailers (Wal-Mart, Sobeys, the Bay);
- A wide variety of smaller retail stores;
- Numerous fast food and coffee shops;
- A major transit terminal; and;
- Direct access to the West End Mall, and Halifax Shopping Centre.

Routing through the existing West End Mall parking lot will be challenging and require the relocation of some parking spaces and creation of a usable active transportation corridor. Crossing the main circulation aisle just east of the fence will required a defined "mid-block" crossing and there are presently no well-defined receiving areas or pedestrian corridors internal to the parking lot. There appears to be an option to widen the existing concrete islands east of the circulation aisle to build a more defined corridor, which would allow pedestrians to get to Wal-Mart. There also appears to be some advantages to keeping pedestrians west of the circulation aisle and provide a corridor between Tim Horton's and the circulation aisle. This option would connect to existing sidewalks and crossing locations though would require some modification to the existing grassed areas and potentially to existing trees.

Crossing of the CN Rail corridor originally considered at-grade and grade separated crossings, which clearly have different financial implications. It is understood that HRM and CN have discussed the option of crossing the rail lines at this locations and that an at-grade crossing could be acceptable to CN. Appropriate negotiations and approvals will be required with CN and impacted landowners to facilitate this crossing.

# 3.4.5 Crossing the CN Fairview Shop Lands

The CN Fairview Shop represents a considerable challenge for connection of the active transportation corridor between the COLTA trail and the Seaview Park area. Two separate options have been investigated, and are represented in Figure 3-7:

Continuation of the route along Joseph Howe Drive and through the Fairview overpass and Windsor Exchange (blue line): would accommodate demand between the Joseph Howe Drive corridor and the Seaview Park area, along with points south. However, there is limited space on the Fairview overpass ramp, and the Windsor Exchange poses other challenges (discussed in greater detail below). The amount of space provided on the ramp, which will be replaced relatively soon, will be critical.



A Rail-cut crossing at Atlantic Superstore (green line) was identified in site visits as a potential way to meet considerable demand between the Superstore and the adjacent residential areas. Connection options on both the north and south sides of the Superstore are possible, and are discussed in further detail in subsequent sections.

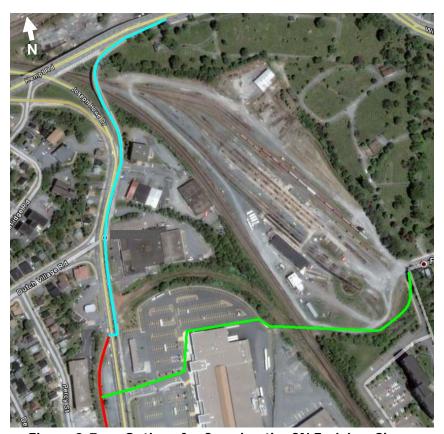


Figure 3-7: Options for Crossing the CN Fariview Shops

# 3.4.6 Joseph Howe Drive - Atlantic Superstore

The Atlantic Superstore on Joseph Howe Drive has been considered a good candidate location for a pedestrian crossing of the rail cut due to the apparent demand of pedestrian traffic between the store and adjacent residential areas. A crossing at this location may also provide an option for connection to Seaview Park and points south.

The portion of the COLTA trail that Halifax Regional Municipality has purchased terminates near the Superstore; therefore, the connection between the COLTA trail and the rail cut crossing behind Atlantic Superstore will need to cross the existing commercial property parking areas in some way. Scot Street provides a good connection option between the commercial parking areas and the COLTA trail.



Two separate locations for the CN crossing were investigated, as shown in Figure 3-9 and discussed below.

The existing crossing location (blue line: Figure 3-9): experiences a significant amount of pedestrian traffic and the grades appear reasonable for an at-grade crossing, as shown on the

right in Figure 3-8. Safety and security may be a concern, as the path would enter the rear of the parking lot, which includes a receiving area and is relatively secluded. Careful application of Crime Prevention through Environmental Design (CPTED) principles will need to be considered during the design phase.

The Village at Bayers Road rear parking lot (green line: Figure 3-9): is currently not usable due to significant grade differences and vegetation, however, may provide a good opportunity for a grade-separated crossing.

The entrance location to the parking lot between the Superstore and the Village at Bayers Road shopping facility may provide a desirable access point.



Figure 3-8: Superstore Rail Crossing

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