Prepared by ekistics plan+design

Exit 506

LAND USE AND FUNCTIONAL PLANNING STUDY

FINAL REPORT
MARCH 2018





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[RIGHT]
Aerial of Exit 506 : Bridge Street & Cattail Ridge Intersection

0 PREFACE

The Town of Sackville has two interchanges into Sackville from the Trans Canada Highway, Exit 504 and Exit 506. Exit 504 had significantly more developable land, unencumbered by wetlands, and connected by Route 940 directly into the downtown. As a result, this exit has become the prime highway commercial exit with 2 gas bars, other highway commercial food services and highway commercial and industrial uses. Exit 504 has developed into the typical highway commercial strip corridor with commercial expansion down the recently completed Wright Street and the older Mallard Drive. Exit 504 was planned to cater to automobile traffic coming from the highway or from in town.

Exit 506, though constructed at the same time replacing the Tantramar Race Track, was significantly more encumbered for development due to the surrounding salt marshes on the north and south side of the interchange, and the existing residential development on the south west side. When the Highway 2 bridge was abandoned upon completion of the new TransCanada Highway in 1959, traffic from the old Route 2 ceased and the interchange didn't see the same level of development as exit 504; though several existing businesses cater to highway and local traffic.

Exit 506 is a secondary access to the community, and has yet to capitalize on its unique position regarding future commercial development and open space networks connecting to the adjacent Tantramar River. The Town of Sackville, recognizing the economic development potential of this area, retained Ekistics Planning and Design to produce a development plan that maximizes potential while mitigating negative impacts that could be born out of ad-hoc planning. This report explores how to leverage the tourism and development potential of this site overlooking the unique tides and mud flats of the Bay of Fundy.



1 EXISTING CONDITIONS

[RIGHT]
Above:
Historic view of covered wooden bridge and rail bridge at the Tantramar River (Mount Allison Archives 8500/129)

Below:
Tantramar Race Track, 1949 (from *Sackville Then and Now: New Brunswick's Oldest Town in photographs*, by Kip Jackson and Charlie Scobie)

1.1 Site History

The interchange at Exit 506 was constructed in 1959, which significantly changed the development pattern of the area. Prior to the construction of the Trans Canada Highway, the Gateway into Sackville from the eastern provinces was via a covered Bridge across the beautiful Tantramar Marsh, at the terminus of Bridge Street. The first covered bridge was built in 1840 and rebuilt three times until Trans Canada Highway rendered this road useless. The art-deco concrete supports of the 1940 bridge remain today as a reminder of the historic significance of this connection. Adjacent to the covered bridge is the railway bridge, that was constructed in 1870 and rebuilt as the current bridge in 1921. This railway connection is what resulted in the location of downtown Sackville, having moved the business from Silver Lake to the Town Center.

The beauty of the Tantramar Marsh and distant Chignecto Bay are evident at the edges of Exit 506. The tidal river, historic dikes, and expansive marshes are a beautiful contrast to the steel trusses of the rail bridge. This area holds both historic and cultural significance to Sackville, as it has been the subject several Alex Colville paintings, who was a long-time resident of the town between 1949-1973. Colville is already celebrated in the community in many institutions and cultural monuments, including the Colville House, Tweedie Hall, Owens Art Gallery, and the Sackville Arts Wall. However, the landscape surrounding the Tantramar Marsh is exactly one of which you can experience Coleville's artistic vision and connection to the region.

Another remnant of the history of Exit 506 is experienced from the aerial perspective, noting the semicircular form of planting at the periphery of the Tantramar Motel property. The tree growth and succession of this area was shaped by what was once the Tantramar Race Track. The Westmoreland Agricultural Society acquired this land in 1871 and constructed buildings to host agricultural exhibitions. To help finance the site, the society added horse racing facilities in 1895, and growing it to a half mile track in 1907. In 1941, the ownership transferred to Tantramar Race Track Limited which expanded to a full regulation racing track, with over 45 stables, and a grandstand to seat over 1700 people. The site from 1945 to 1959 was an active track, hosting other events such as carnivals. The entire site was demolished in 1959 to make way for the current Exit 506 Interchange.




THE TAINTRANAR RACE TRACK LTD.

[RIGHT]
Existing businesses and streetscape

1.2 Existing Business

Commerce and economic activity surrounding Exit 506 is limited, with few businesses located in this area. Currently the area holds the Tantramar Motel, the Westmoreland Animal Hospital, RB Robson Homes, an Ultramar Gas Bar, Glowing Embers, Moloney Electric, and a Day Care facility. Beyond the key intersection at Bridge and Cattail is the Sackville Industrial Park. While the industrial park holds opportunity for growth and expansion, the key study area for 506 focuses on the land zoned Highway Commercial. This is the area located along Cattail Ridge, Robson Ave, and Bridge Street.

Each of the existing businesses are well rooted in the area and have seen successful profits in their respective locations. They are also a cohesive stakeholder group, in their voice to increase visibility and attract further business opportunities within the area of Exit 506. The group of businesses have formed an Exit 506 Committee which are vocal in their aspiration for future development. The issues of zoning and regulation, in that the existing ban on Drive-thrus, as been present in each of the stake-holder interviews, anticipating that allowing drive-thrus would attract new business to the area.




MOTEL
TANTRAMAR




Sackville
CENTRE



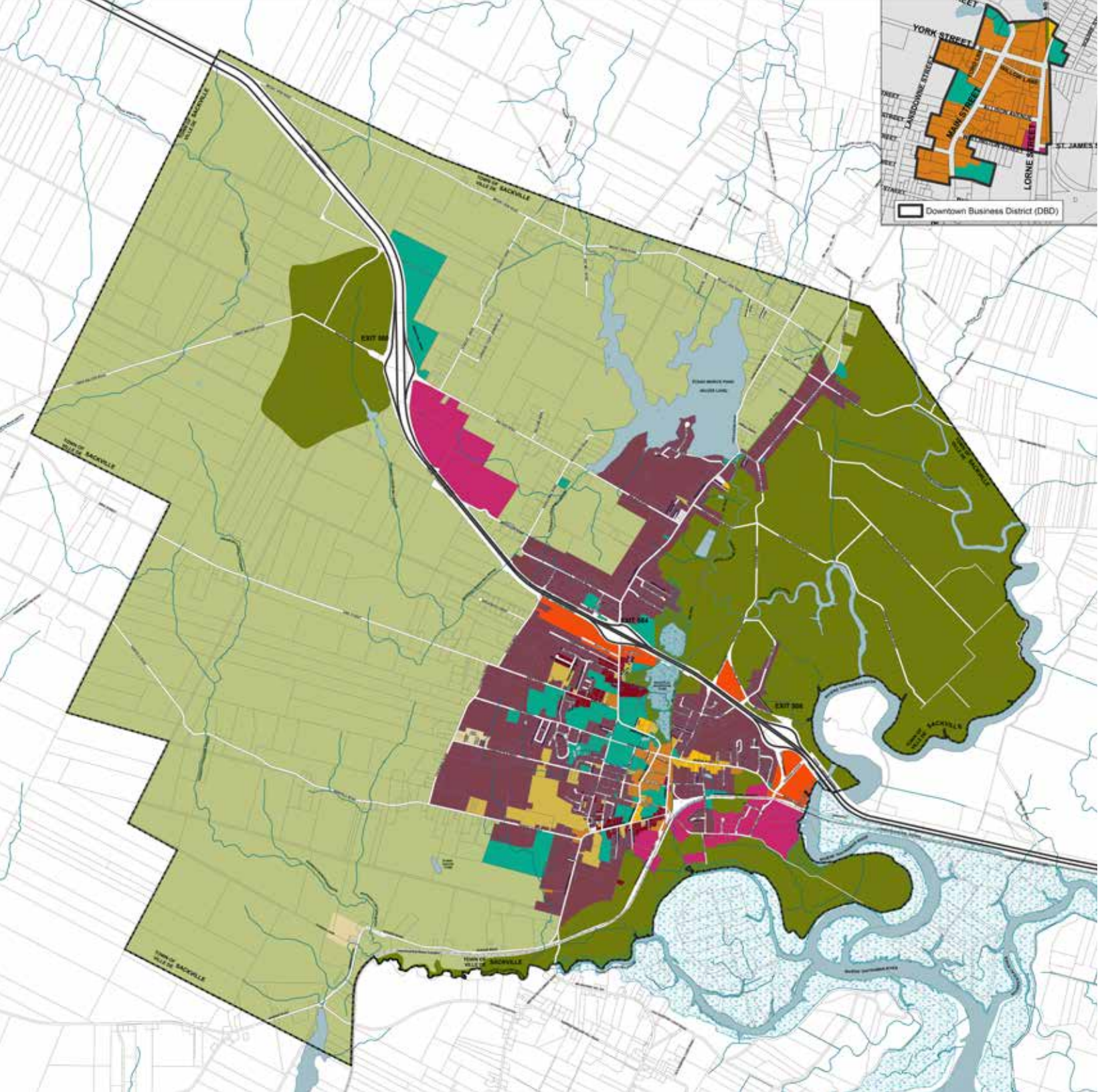

Ultramar

[RIGHT]
Town of Sackville Zoning Map (2016)

1.3 Existing Policy

Current zoning at Exit 506 is Highway Commercial, focusing on standards to ensure high quality sustainable commercial development. There is an emphasis on environmentally sensitive development that minimizes impacts on surrounding natural areas, which is pertinent to the location of Exit 506, and its adjacency to the Tantramar Marsh. While the Marsh is very much an environmental asset, the low elevation of the surrounding land renders a large portion of the land within the Exit 506 area undevelopable in accordance to the "Town of Sackville Hydrographic Map." Land that is to be developed within this area must have specific and special flood proofing requirements.

While the permitted uses covered within the Highway Commercial Zone are quite extensive, there are a few notable disagreements that have surfaced during the initial site investigations and stakeholder interviews. The Drive-thru ban is the most contested within the area, born out of a denied application to allow a drive-thru at the current Ultramar Gas Bar. The second, is opening the permitted zoning to include both institutional and residential uses. While neither are currently permitted, the implementation chapter of the report will outline the necessity of which uses would be beneficial to initiate development and possibly act as catalyst for the growth and development of Exit 506,



Legend

Zoning

Mixed Use	MU
Urban Residential 1	R1
Urban Residential 2	R2
Urban Residential 3	R3
Residential Historic Commercial	RHC
Rural Residential	RR
Institutional	I
Highway Commercial	HC
Mobile / Mini Home	MH
Industrial / Business Park	IND
Neighbourhood Commercial	NC
Agriculture / Conservation	A/C

[RIGHT]
Community workshop
December 7, 2016

1.4 Community Response

The success of any planning process is dependent upon the participation, involvement, and support of the local community. The Exit 506 Land Use and Planning Study commenced in December with a series of stakeholder interviews, a council workshop, a public workshop, and an online survey to ensure that everyone had equal opportunity to share concerns and ideas. It quickly became apparent that the residents of Sackville are heavily invested in the future of their community, with strong opinions that are noted below.

Stakeholder Interviews

Ekistics provided the platform for individual interviews with land owners and business owners surrounding the Exit 506 area. On December 7, Matthew Brown and Rob LeBlanc met with numerous stakeholders to allow an opportunity to discuss future possibilities, potential, as well as concerns. The main take-aways from these meetings are below:

- *All development is beneficial to the community*
- *The Drive Thru ban should be reversed to attract new development*
- *Pedestrian safety is a concern, especially for the daycare*
- *The adjacency to the Tantramar affords an excellent opportunity for a park, and walking trails to connect to nearby attractions.*

Community Workshop

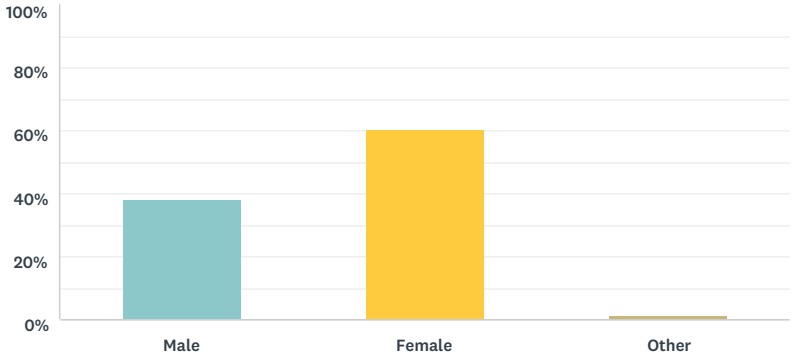
On the evening of December 7, approximately 35 community members gathered at the Town Hall to brainstorm ideas for the future of Exit 506. Ekistics initiated the workshop with a brief presentation of key issues pertaining to the surrounding land, before breaking into smaller groups to brainstorm ideas and projects that would be beneficial to the region. Ideas were then presented back to the entire community and recorded for the use within the plan. Some of the design suggestions and comments are summarized below.

- *Alex Colville Art Park to celebrate the location of several of his paintings*
- *Preserving woodlots and trees, but adding walking trails that connect to the dyke system*
- *Pedestrian friendly design that incorporates sidewalks and crosswalks*
- *Bike lanes to connect the downtown core to the Bride Street Terminus*
- *Potential for an increase in the diversity of residential use (mixed use, tiny homes)*
- *Support any increase in business, even if through the necessity of drive-thrus*
- *Support tourism related business, as well as possibility to cater to RV, and camping*


EXIT

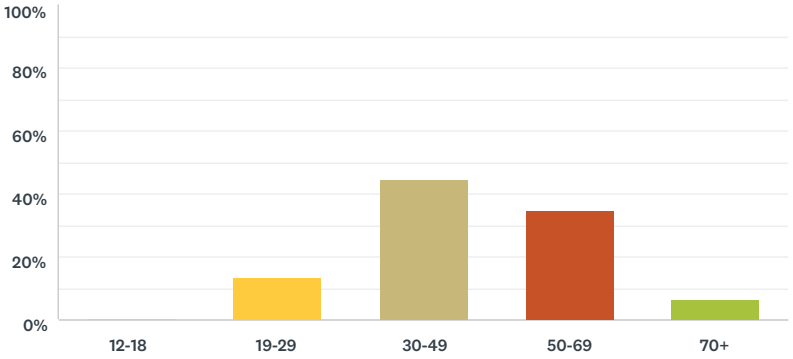
Online Survey

The online survey was available through the Town of Sackville's website from December 7 until January 12, as an attempt to solicit a response from the broader community. There were 400 surveys returned, which is impressive, proving the community is invested in all areas of future development. The survey results reiterated much of what was present during the community meeting. The responses for each of the questions are outlined on the following pages, but the overarching response was one that would like to see Exit 506 develop to support business, be conducive to the pedestrian, and be respectful of the natural woodlots and Tantramar Marsh. It was evident through the survey that the community does not want to see large commercial development, such as Big Box Retail.



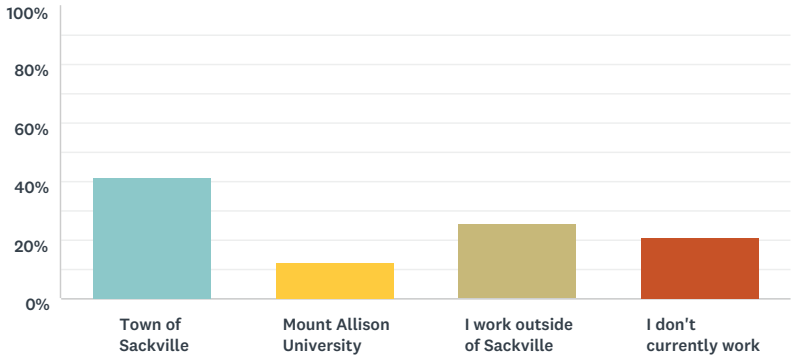
Gender

Sackville's gender demographics echo trends across Canadian urban centres, with fairly equal distribution of gender make up. However, the majority of survey respondents identified as female at 60%, as opposed to 38% male. A few respondants indentified as other respresenting 1% of the survey respondents. It is clear that Sackville is a progressive and forward thinking community in regards to gender relations, however a push is needed to engage more men in issues of urban affairs.



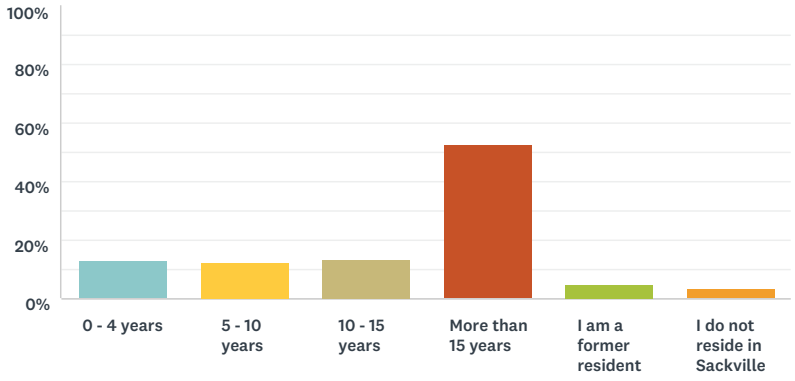
Age

Sackville is a thriving small community that offers amenities and opportunities catering to a diverse age range. Mount Allison University, one the most highly regarded liberal arts universities in the country, attracts young people from across Canada and abroad. The University offers a number of employment opportunities for working aged adults, and gives a level of vibrancy, which is appealing to retirees.



Employment

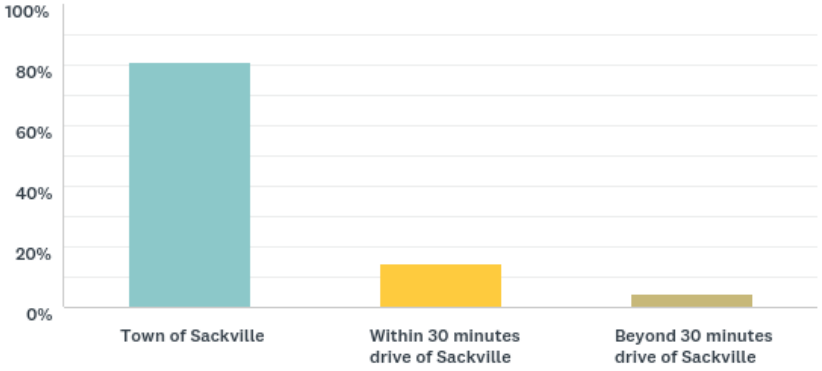
The majority of respondents work in downtown Sackville. Mount Allison University provides a large amount of employment opportunities for people with a broad range of skillsets and qualifications, and helps to centre other economic activity in the downtown core. Sackville's proximity to agricultural areas as well as larger centres, like Moncton, make it a desirable place to live and commute to work outside of the town.



Community Relation

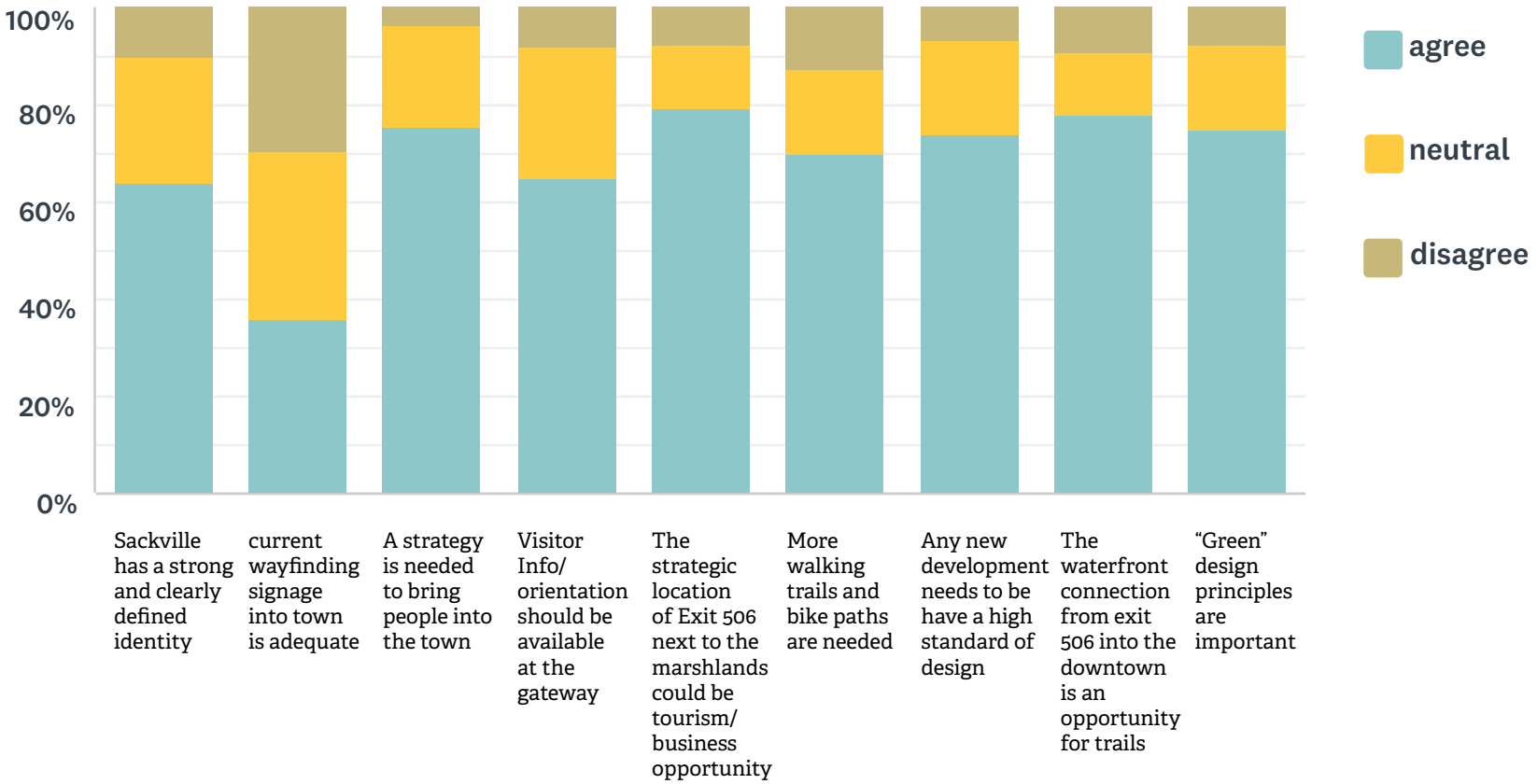
Most survey respondents, 66%, noted that they have lived in the community for a decade or more. Despite the transient nature of a younger student population and the current trend of out-migration seen across Atlantic Canada, Sackville has remained a desirable place to live and stay. The combination of the University, large-scale industry, and the culture and tourism sector has created a long standing community.





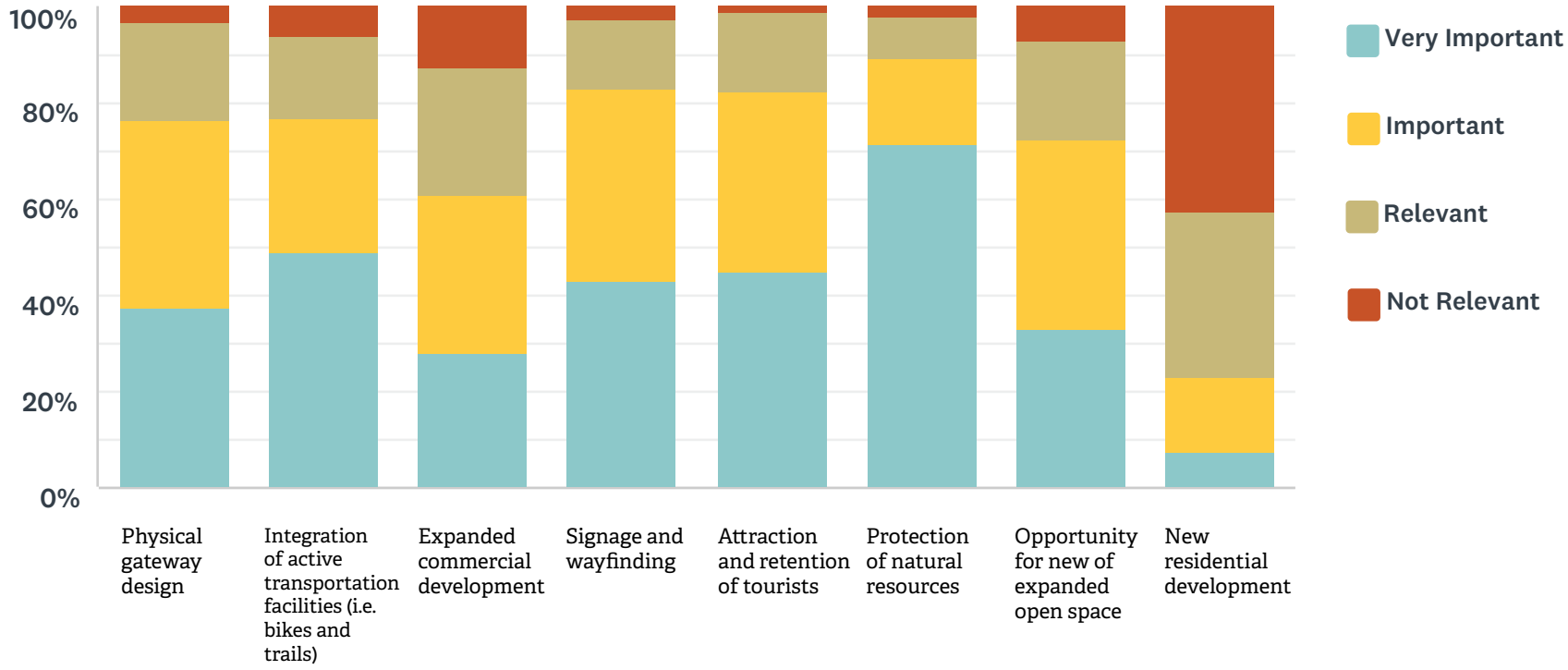
Geography

The vast majority of respondents noted that they live in the Town of Sackville, while approximately 20% of respondents live in rural outlying areas. Sackville is a very desirable place to live due to businesses, arts and culture, good walkability, and availability of housing. As the town grows, it would most likely benefit from mid-rise residential development to add to its housing diversity. Since Sackville is located along the floodplain of the Tantramar River, it is best practice limit the amount of urban sprawl in the outlying areas of town.



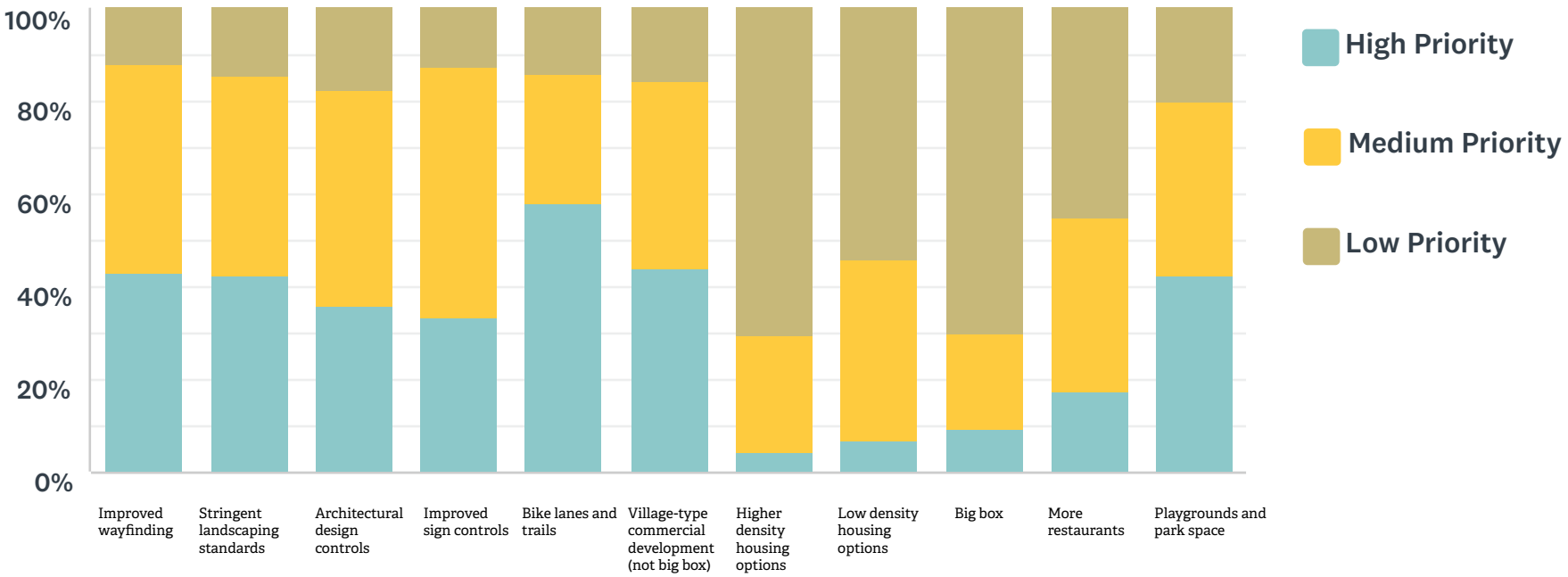
Target Program

It is clear that respondents place high priority on the need for an active transportation network that connects downtown to the waterfront. Currently there is only an informal trail along the waterfront edge. There is great potential establish an accessible waterfront lookout and park area at the end of Bridge Street that would provide outdoor recreation to both locals and tourists. This would help make the area more desirable for future tourism business ventures that were noted as one of the top program priorities. Adhering to "green design" principles and addressing issues of storm water and flood mitigation are also very important to the local population. This demonstrates that the community values natural areas and are well versed in issues concerning the environment and sustainability. Creating a recreation park and trail network would be an ideal use of the floodplain area, allowing for the river to flood and reserving larger-scale development to areas less susceptible to flood damage.



Target Improvements

The community placed natural resource protection as their top improvement priority, followed by an enhanced active transportation network, improved gateway signage, and as well as the need to attract tourists to this area. Respondents placed low priority on both residential and commercial development. Some of this response may be from the recent clearing of the woodlot adjacent Exit 506. It is evident that the community would like to access the waterfront and the surrounding natural scenery. A large percentage of New Brunswick tourism is dependent on its natural landscape. Creating an accessible waterfront would benefit locals and tourists alike.



Design Elements

Top design elements for the community were active transportation trails, public open space, and gateway and wayfinding signage. These priorities remain consistent throughout the survey results. The community is somewhat open to small-scale local business ventures such as restaurants and village-type commercial developments. They remain very opposed to any large-scale big box commercial and do not see the need for either low-density or high-density housing. Again, all top design elements have the potential to work together to create a great recreational amenity that would satisfy both locals and tourists. The site has potential to become one of Sackville's top attractions.





Priorities

This survey question asked respondents to rank their top priorities in their own words. Again, the first priority was the creation of an active transportation network for pedestrians and cyclists. The community truly values the natural scenic qualities and ecological significance of the Tantramar Marsh and River. In order to preserve the areas natural character it is best that large-scale development is kept to a minimum. Creating a trail network, a park, and providing gateway and wayfinding signage would very much satisfy the community's needs.

[RIGHT]
View of rail bridge and distant Chignecto Bay

2 OPPORTUNITIES AND CONSTRAINTS

2.1 Site Opportunities

Tantramar Marsh and Waterfront

The Tantramar Marsh and its associated water frontage create significant opportunity for open space, recreation, and tourism related business. The remnant bridge infrastructure, along with the existing walking trails that connect to the extensive dike network around the marsh open the opportunity to further expand an open space network for both residents, and tourists. While the marsh provides visual interest from the site, it is also experienced via the tourist west bound on the Trans Canada Highway. This provides an opportunity for a site intervention that could captivate the visitor and entice them to stop along Exit 506 for a unique and authentic tourist experience which blends the cultural and natural history of the region.

Motel and Tourism

The current Tantramar Motel is successful in capturing tourists from the region, which provides a fantastic opportunity to expand on this market segment. Tourists are looking for unique experiences that could be developed adjacent to the Tantramar Marsh, and complimentary businesses could be constructed to ensure the needs of the tourist are met.

Residential Development and Other Uses

While the Exit 506 area is zoned Highway Commercial, it is direct adjacent to an established residential neighborhood, as well as an industrial park. The diversity in land use adjacent to this area brings with it an opportunity to provide for its existing residents. New development should focus on providing a safe pedestrian realm that connects the residential neighborhood to its nearby natural amenities and assets. In addition, future development affords the opportunity for business that cater to both a daily work base, resident, and tourist market.



[RIGHT]
Flood Zone Area
(Town of Sackville Hydrographic Map)



2.2 Site Constraints

Flood Area

The developable land with the Exit 506 area is restricted by the water levels attributed by the Tantramar Marsh. The "Town of Sackville Hydrographic Map" shows that the majority of land at the periphery of the site is prone to flood risk, which pushes development along Cattail Ridge. The development parcels along Bridge Street will have special flood proof requirements, outlined within section 3.13 of the zoning by-law, which may be worth pursuing due to the visual and recreational amenity afforded by the adjacent marsh. In essence, close attention must be paid to the projected flood levels within Exit 506.

Intersection and Traffic

As one of two highway interchanges into the town of Sackville, planning for traffic and the automobile is inevitable. The constraint, or challenge in developing Exit 506 is to promote a safe pedestrian circulation network amongst the key intersection and Cattail Ridge and Bridge Street, that leads to Sackville's industrial park. With the neighboring residential area, as well as a day care, it is important to recognize the necessity of planning for the pedestrian within the area.

Interchange Grade Change

The interchange at Exit 506 bridges the Trans Canada highway, and thus necessitated a fair amount of grade change along Cattail Ridge. This creates difficult in expanding the width of Cattail Ridge to accommodate additional use, as well as divides portions of the original extents of the Tantramar Marsh that are in close proximity to the Waterfowl Park.

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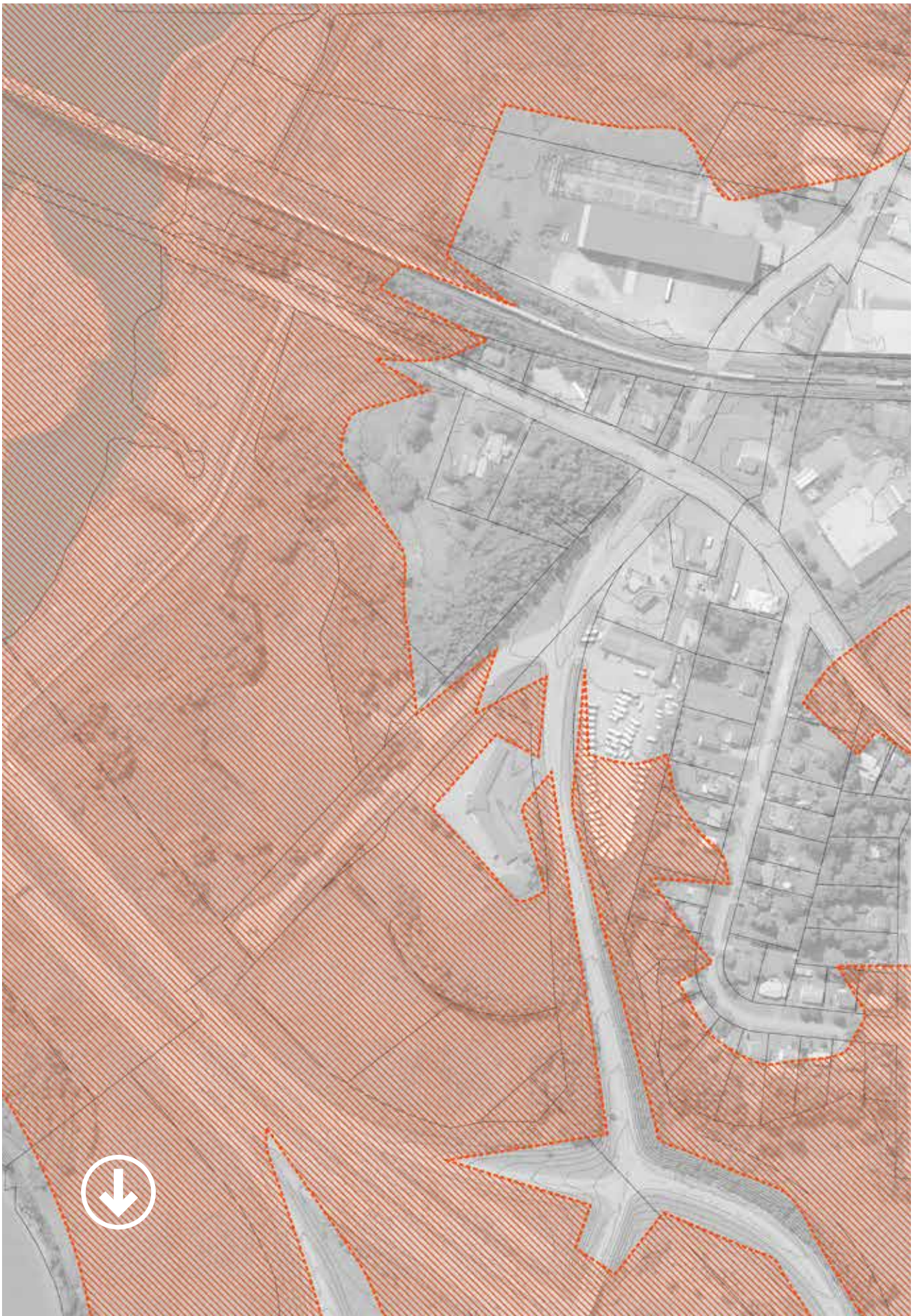
MARCH 2018



3 DESIGN

3.1 Framework Plan

On December 21st, 2017, Ekistics presented two Framework Plan options to the Town of Sackville. The Framework Plan is intended to provide a starting point in creating the final Exit 506 Land Use Plan. The two plan options differ spatially, but incorporate many of the same programmatic elements. Option A studied the possibility of a round about, and a new secondary street network to open further development possibilities. Option B focused on accommodating a similar scale of development with less capital costs. Each focused on the below program:

- Potential for infill mid-rise commercial and residential development along Cattail Ridge
- Creation of a cohesive streetscape with limited setback along Cattail Ridge and at the Bridge Street intersection
- Improved gateway and wayfinding signage
- Street tree planting and vegetation buffer
- Bike lane connections from downtown core along Cattail Ridge and Bridge Street.
- Walking trails connecting to Sackville Waterfowl Park and dike trail system along the waterfront
- Park and lookout at terminus of Bridge Street
- Retaining all existing businesses

Framework Plan Option 1



Option 1

Framework Plan Option 2



Option 2

Trail

Bike path

Park

Proposed development

Parking

3.2 Master Plan

The final Exit 506 Plan is meant to map out future program and design criteria of the Exit 506 area. The plan seeks to balance the community's desire for economic growth while also addressing issues of stormwater management, green design principles, and better access to natural amenities along the Tantramar River. The future of Exit 506 will necessitate some initial capital projects to create a logical and safe circulation pattern, including the realignment of Robson Avenue, and a new signalized intersection at Bridge St and Cattail Ridge. The Spatial Plan includes the following components:

1. Enhanced streetscaping and bike lanes.
2. Mid-rise commercial development
3. Mid-rise residential development with flood protection
4. Potential expansion of the Tantramar Motel
5. Re-alignment of Robson Avenue
6. Walking trail and dog park
7. Alex Colville Park and Look Off
8. Gateway signage at Bridge Street
9. Trail network connections
10. Stormwater Ponds

504 vs 506

Unlike exit 504, Exit 506 is setback from the highway making it slightly more challenging to develop as a typical highway oriented commercial development, further, this site has tremendous potential as a tourist destination site overlooking the river and connected to a future regional trails network. The connection to Alex Colville and the scenic train bridge also make this a different type of highway interchange development than what you might typically find.

To leverage the benefits of this exit, there should be an emphasis on the pedestrian as well as the car, on developing the recreational tourist amenities, and on connecting the town's trail network to this important site.


Master Plan
Exit 506
Trans Canada Highway
Tantramar River
Cattail Ridge Road
Bridge Street
Downtown Core
1
2
3
4
5
6
7
8
9
10

3.3 Transportation and Circulation

Mio Vision Results

The Mio Vision automated traffic counter was set up on Friday December 8 to carry out intersection turning movement counts at the intersection of Cattail Ridge and Bridge Street. The resulting counts showed that over 2286 vehicles moved through this intersection during the peak hours of Morning (7am-9am), Noon (11:30am-1:30pm) and Evening (3-6pm). The highest volumes appear to occur in the PM peak hour where there are close to 400 vehicles per hour through the intersection.

As expected, the majority of traffic moves between Cattail Ridge and Bridge Street which is the direct route between Highway 2 and Downtown Sackville. During the 7 hours counted, the peak movements are the right turn from Cattail Ridge to Bridge Street (785 vehicles) and the left turn from Bridge Street to Cattail Ridge (715 vehicles). This represents 66% of all traffic through the intersection. The second most prominent movement is between the highway and the industrial park, which sees most of the vehicles moving straight through the intersection between Cattail Ridge and Crescent Street. The inbound and outbound traffic in this direction are approximately equal with 275 vehicles traveling in each direction (24% of total traffic).

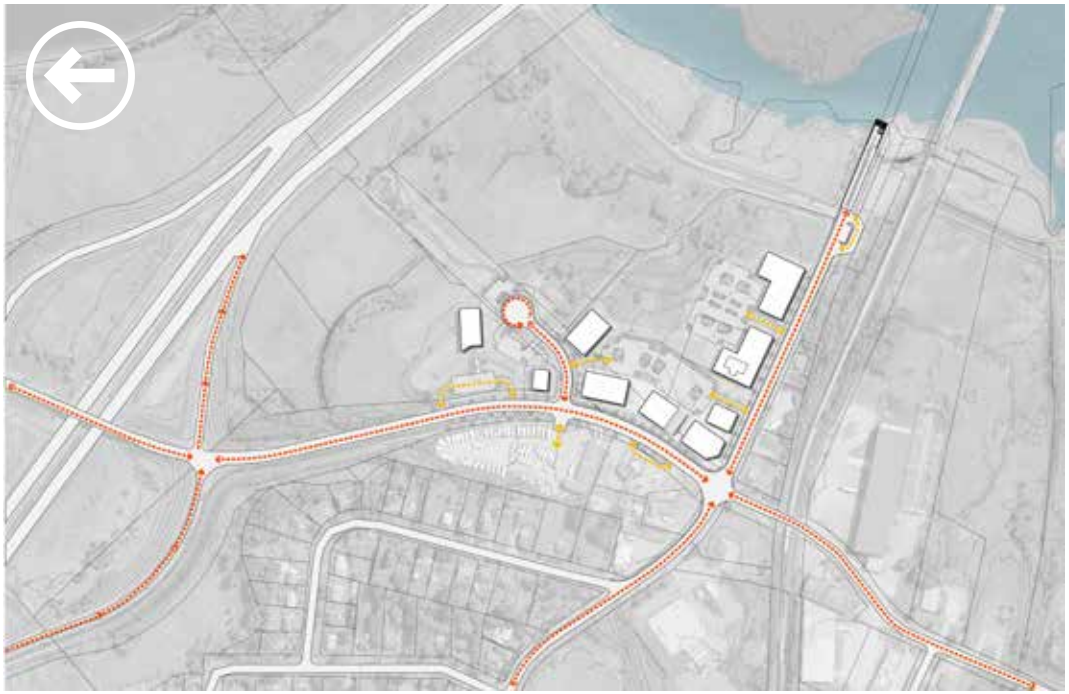
Another interesting finding is the distribution of vehicle types through the intersection with only 74.7% of all vehicles being passenger cars. Approximately 20.3% vehicles were identified as light goods vehicles (commercial), 2.7% were single unit trucks, 1.8% were articulated trucks, and 0.4% were identified as buses. Bikes accounted for only 0.1% of traffic and no pedestrians were identified, though these counts are not considered representative of normal conditions given the time of year the counts took place.

Recommendations for the Intersection

The existing intersection is a non-traditional 4-way, stop controlled intersection. All intersection legs include a single lane approaching and exiting the intersection and there are no dedicated turn left or right turn lanes present though there is a southbound right turn channelization in place to accommodate the high volume inbound right turn movement from Cattail Ridge to Bridge Street. The island for this channelization is quite small (~4m x 4m) and a larger paved lane is provided presumably to accommodate truck turning movements through the right turn.

The intersection is skewed slightly (approximately 10 degrees) from perpendicular and there is a long radius curve approaching the intersection on Bridge Street (~350 m radius). It is also noted that there is a railway crossing across Crescent Street located approximately 70 meters south of the intersection as well as a number of

Vehicle Circulation Plan



Typical 3m wide Shared Use Bike Trail



Vehicular

Egress

Bike Circulation Plan



Typical 1.5m wide onstreet Bike lanes



Bike Lane

driveways to commercial and residential properties near the intersection. Generally, the above noted characteristics are considered reasonable for this type of intersection. The most significant challenge at this intersection is the traffic control arrangement where 3 of the 4 legs are stop controlled, but the higher volume eastbound left turn / through / right turn movements is allowed free-flow conditions. This arrangement was likely put in place to accommodate the highest flows through the intersection but is a non-typical intersection arrangement that does not meet recommended intersection design guidelines. It is considered a safety issue as it is contrary to driver expectations and can create unexpected turn movements (i.e. the westbound movement would typically expect the eastbound movement to have a stop sign as they currently do).

A number of different options were evaluated to address this intersection:

1. **Traffic Signals**: Traffic volumes (vehicles and pedestrians) through the intersection, now and in the future, are very unlikely to meet the requirements of a traffic signal warrant for the installation of traffic signals. This is an expensive option both in terms of capital outlay and ongoing maintenance costs.

2. **Modern Roundabout:** Given the directional distribution of traffic and limited volumes on two legs, a roundabout is a highly recommended option that provides clear guidance to driver and is functionally appropriate. Disadvantages are that it is relatively expensive to construct, will require more space in the intersection area and will likely require a truck turning apron to accommodate the eastbound to northbound left turn truck movement.

3. **Strategic Realignment of Intersection Legs** This option could include the realignment of the roadway to create free flow movement for the heaviest volume movements or realigning other legs of the intersection to remove the traffic flows from the intersection. Upon further review, there do not appear to be any cost-effective options to make this alternative feasible.

4. **4-Way Stop Control Intersection:** The Manual of Uniform Traffic Control Devices and other industry standard intersection design guidelines recognize both 2-way and 4-way stop controlled intersections as viable alternatives. The 4-way stop controlled option would require the addition of a 4th stop sign on the eastbound approach. This would eliminate the free flow movement and require all left turn vehicles to stop. This increases delays from less than 1 second per vehicle to approximately 9 seconds per vehicle during either the AM or PM peak hour.

5. **2-Way Stop Intersection:** A 2-way stop controlled intersection would require that the westbound stop sign be removed from the intersection allowing free flow conditions in both the eastbound and westbound directions. This would be the configuration of a standard 2-way stop control intersection and would permit the eastbound left turn to remain as an essentially a free-flowing movement.

Recommendations

While many features of this intersection meet typical design requirements, the traffic control arrangement is non-typical and therefore increases the chances of unexpected vehicle maneuvers and potentially puts the Town and Province in a

position of liability. Overall, the volumes through this intersection are quite low and are highly distributed to the north and east legs of the intersection. SYNCHO traffic models for the intersection suggest that the intersection operate at about 30% of its capacity during the AM peak and about 35% during the PM peak. Even doubling the traffic through the intersection only results in the intersection operating at about 50% of its capacity.

Of the options consider for upgrading the intersection, a modern roundabout is likely to best serve the traffic volumes through the intersection from and operational and safety perspective, through it is recognized that this is one of the more expensive options. If a lower cost alternative is required, upgrading the intersection to a two-way stop configuration (northbound and southbound stop signs only) will provide a high level of operational functionality and will meet typical industry guidelines for intersection design. Under this option, a number of improvements should be considered including:

- Removal of the eastbound left turn sign which guides traffic to make a left turn even though through or right turns are options, and promotes drivers to pay less attention to other vehicles at the intersection;
- Remove the stop sign in the westbound direction;
- Add "2-Way Stop" markers under the existing stop signs in the northbound and southbound directions;
- Option to add temporary introductory "NEW" "2-Way Stop" signs prior to the intersection to advise drivers of the change in operation;
- Tighten up the intersection paved area to reduce the amount of unused asphalt. This helps provide better guidance to drivers, limits the variability of travelled routes through the intersection, and will help reduce speeds through the intersection. The design in each quadrant should be made as tight as possible while respecting the requirements for swept paths of larger truck turning movements, and to eliminate any conflicts with left turning vehicles.

Cycle Lanes

The community meetings and survey results demonstrate that residents desire to access the Exit 506 area via bike and trail networks.

The current Cattail Ridge road cross section includes 3.5m travel lanes and a 1m gravel verge. The guard rails are 0.5m from the gravel edge. To add bike lanes to both sides, would require converting the gravel lanes to 1.5m asphalt cycle lanes on both sides of the street. The exit 506 highway bridge already has 1.2m wide asphalt lanes in place so there would be no need for bridge modifications or guard rail modifications. Bike lane signage and paint markings will need to be added in the future.

From Cattail Ridge to the old bridge, the plan shows a 3m wide multi-use trail on the north side of Bridge Street from Cattail to the old bridge for cycle and pedestrian use.

In the future, onstreet bicycle lanes should be added to Bridge Street all the way to downtown (currently 12m wide see easily wide enough to add 2 @ 1.5m lanes).

These cycle routes will also connect to proposed hiking trails and open spaces, providing a comprehensive active transportation network.

3.4 The Village Core Streetscape

504 vs 506

Exit 504 is the typical, auto oriented commercial Strip Development (See Fig 3.3 1-2). Exit 504 is proposed as a pedestrian related village core (see Fig 3.3 3-4) rather than the typical strip corridor. To that end, future buildings should be pulled up to the street rather than being separated by a parking lot. In this model, parking is moved to the rear (or side) and the buildings have entrances that face the street and the parking lot. This also means emphasizing the importance of place-making and human-scale design. The sidewalk on the east side of Cattail would have direct access into the buildings and no asphalt is permitted between the sidewalk and the building.

The site's current zoning category of "Highway Commercial" stipulates that building setback to be no less than 7.6m (25ft) (town of Sackville, zoning by-law 244). Current setbacks in the area range from 20-30m (approx. 65-98ft). The Plan proposes a building setback of no more than 6m (approx. 20ft) to allow for future turning lanes if needed. The right of way will include the bike lane (on street), a curb and gutter, 1m grass strip, 2m sidewalk and 1m planting/amenity strip for trees.

Sidewalks

The Plan proposes sidewalks to be added along the east side of Cattail Ridge and the north side of Bridge Street. The location of the sidewalks is based on the relative location of proposed development. The sidewalks are to be a minimum of 2m wide in order to accommodate wheelchairs and strollers. It is also recommended that benches and bike racks be placed along the sidewalk to invite pedestrian and bicycle traffic along the street.

Finally, sidewalks are intended to link the proposed trail network, connecting from Waterfowl Park, through the proposed development, and finally along the waterfront dike trail.

Buffer Planting

Trees and other vegetation provide many benefits to a community by enhancing its aesthetic character, shading and cooling in the summer, noise buffering, as well as contributing to overall environmental health and biodiversity.

The plan proposes new tree plantings along Cattail Ridge and Bridge Street to create sense of arrival when entering and exiting Exit 506 and well as the other aforementioned benefits. It is also recommended that trees be planted at rear side of the development to help with noise differing and screening from the adjacent Trans Canada Highway. Planting trees within parking lots allow for shade, while shrub and grass swales provide for stormwater management and phytoremediation practices.

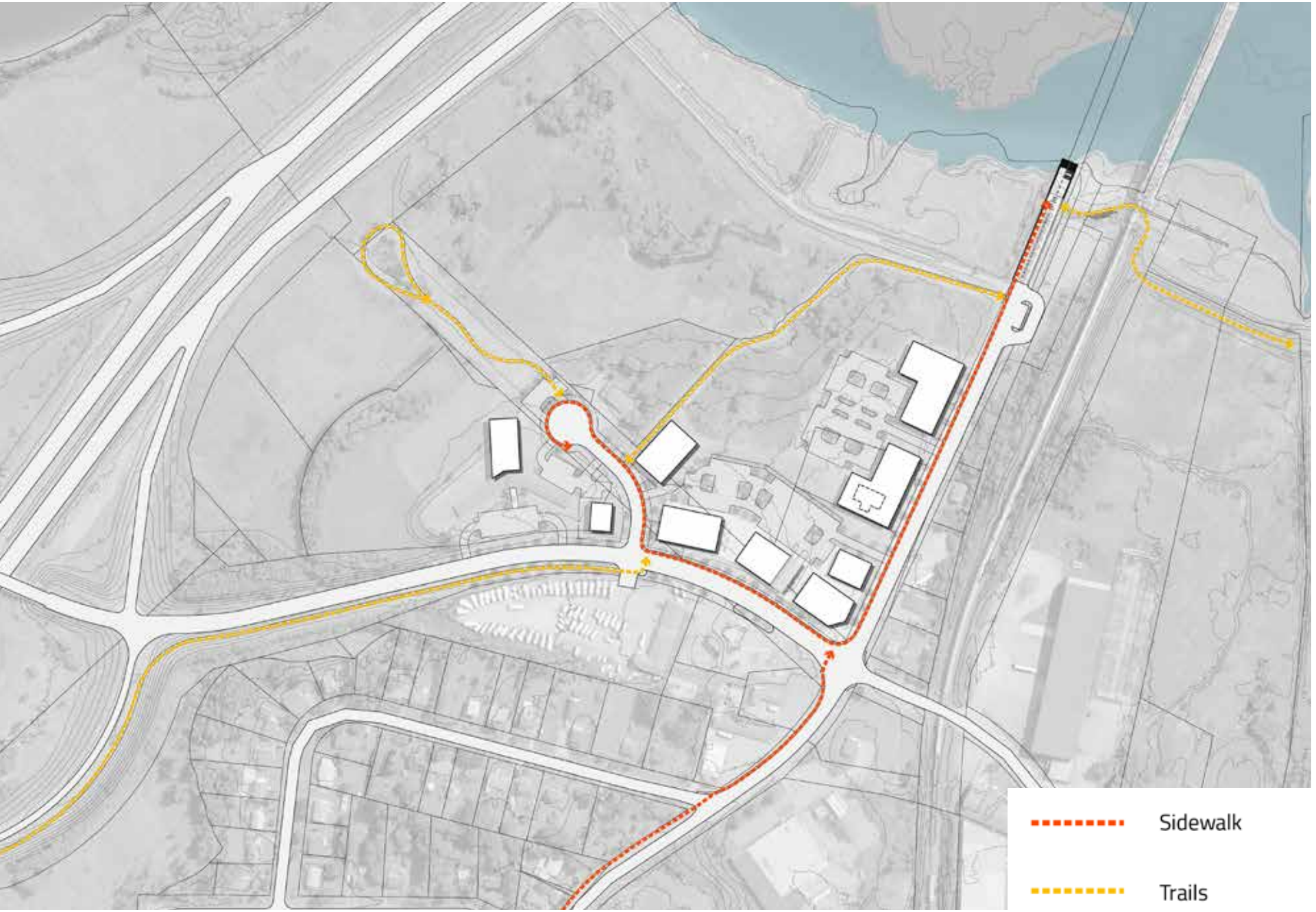

Sidewalk
Trails



Fig 3.3-1 Typical Commercial Strip Development Patterns



Fig 3.3-2 Typical Commercial Strip Development Patterns



Fig 3.3-3 Village Core Commercial Development Patterns

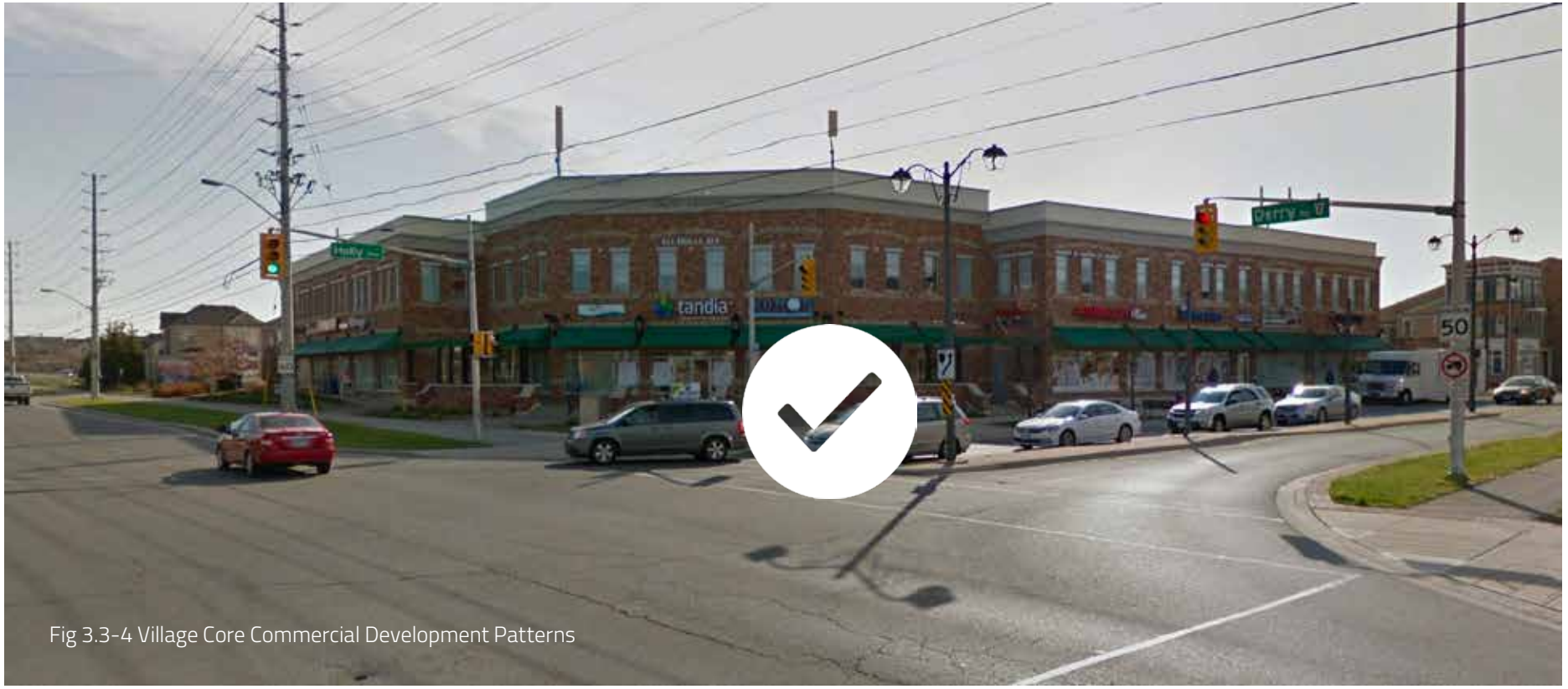


Fig 3.3-4 Village Core Commercial Development Patterns

3.5 Development Potential (CBRE)

While Exit 506 is zoned primarily for Highway Commercial, CBRE Limited evaluated the market opportunities for Exit 506. The proximity of Exit 506 and nearby Moncton and Amherst pose competition that will challenge the market demand of Exit 506. With Exit 504 having vacant commercial land, CBRE has deduced that it will be challenging to attract a national or regional retailers at this time.

CBRE has noted that the opportunities for Exit 506 lie in providing a strong anchor for the area, which is currently the Tantramar Motel. Incentivizing the existing motel to commit to an extensive renovation, or perhaps expansion could be catalytic for the development of the area in commercial space that would supplement this industry. Commercial space such as dining, or travel related goods and services could promote this area as a destination. Building on this areas scenic opportunities overlooking the river may drive commercial demand for uses that include restaurants, rest stops, adventure tourists, people travelling with pets or small children that are looking for a scenic break. To drive demand at Exit 506, delivering additional housing, or perhaps an institutional use such as a significant employer could increase market demand for this exit.

Material economic growth for Exit 506 could dependent upon an increase in local population, thus creating a local commercial demand driver.

The current rent potential as of January 2018 would be in the range of $15-20 per square foot (exclusive of the utilities, taxes, and costs to operate the space).

Development

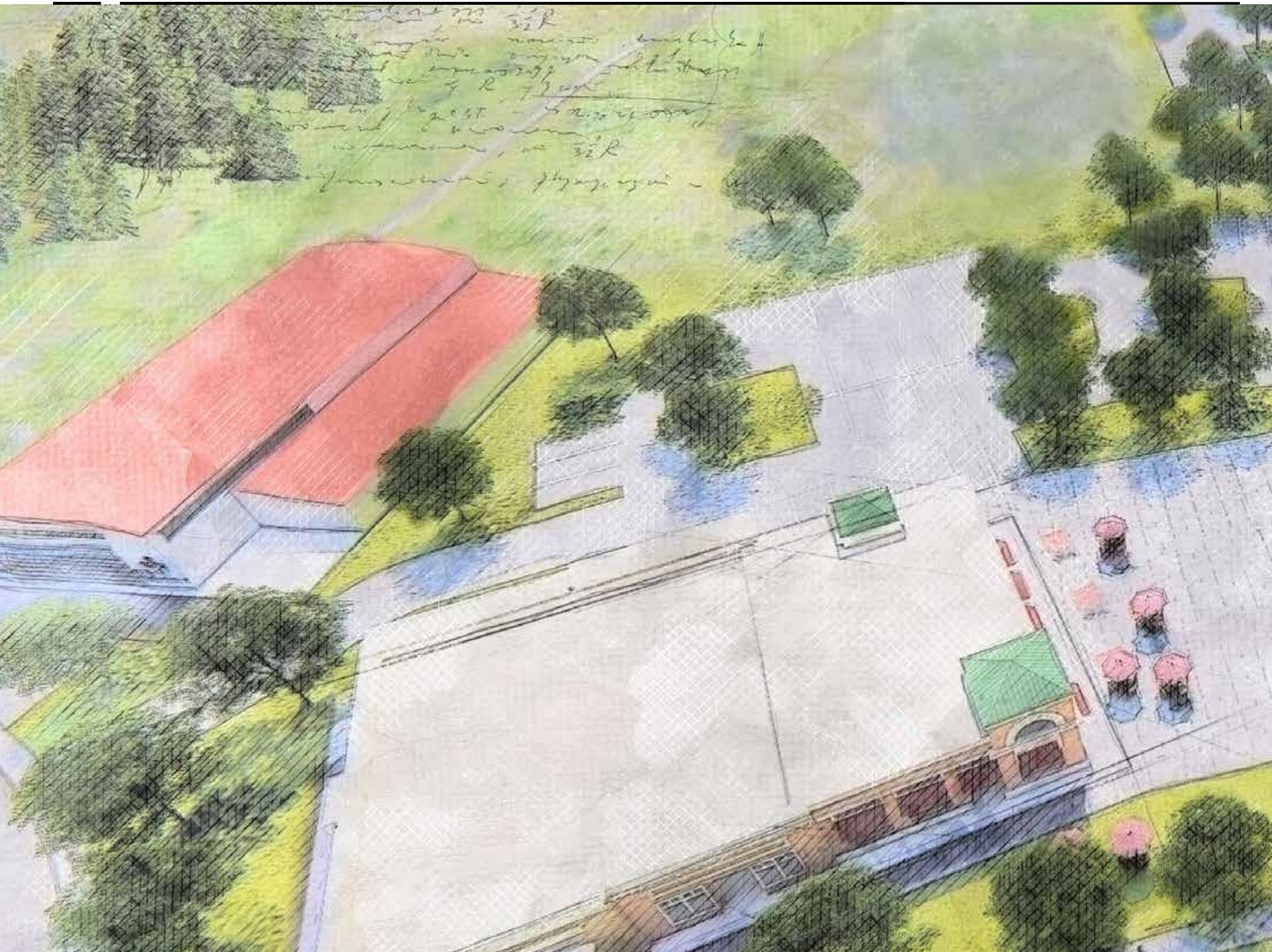
The results of CBRE investigation are reflected in the Exit 506 plan, which indicate expansion of the Tantramar Motel, increased commercial space, potential institutional uses, and residential development. What this entails is a change to the current Highway Commercial Use land use to be amended to allow for both institutional and residential development. It is seen through the spatial plan, that residential development is held along Bridge Street, where commercial is focused along Cattail Ridge. Institutional use should be located off Cattail Ridge, as it less likely to require commercial street frontage. The type of institutional use within Exit 506 should be complimentary to its surrounding land uses, to ensure the success of existing businesses, and future development.

The residential development shown is to be medium density, to provide for increased diversity of housing type within the town, and to capitalize on the surrounding natural amenities and viewsheds toward to the Tantramar Marsh.


Commercial
Institutional
Mixed-Used
Residential









3.6 Open Space

The Exit 506 plan proposes two dedicated park spaces. One dog walking park accessed by trail which connects to realigned Robson Avenue; and another, Colville Park, located at the terminus of Bridge Street.

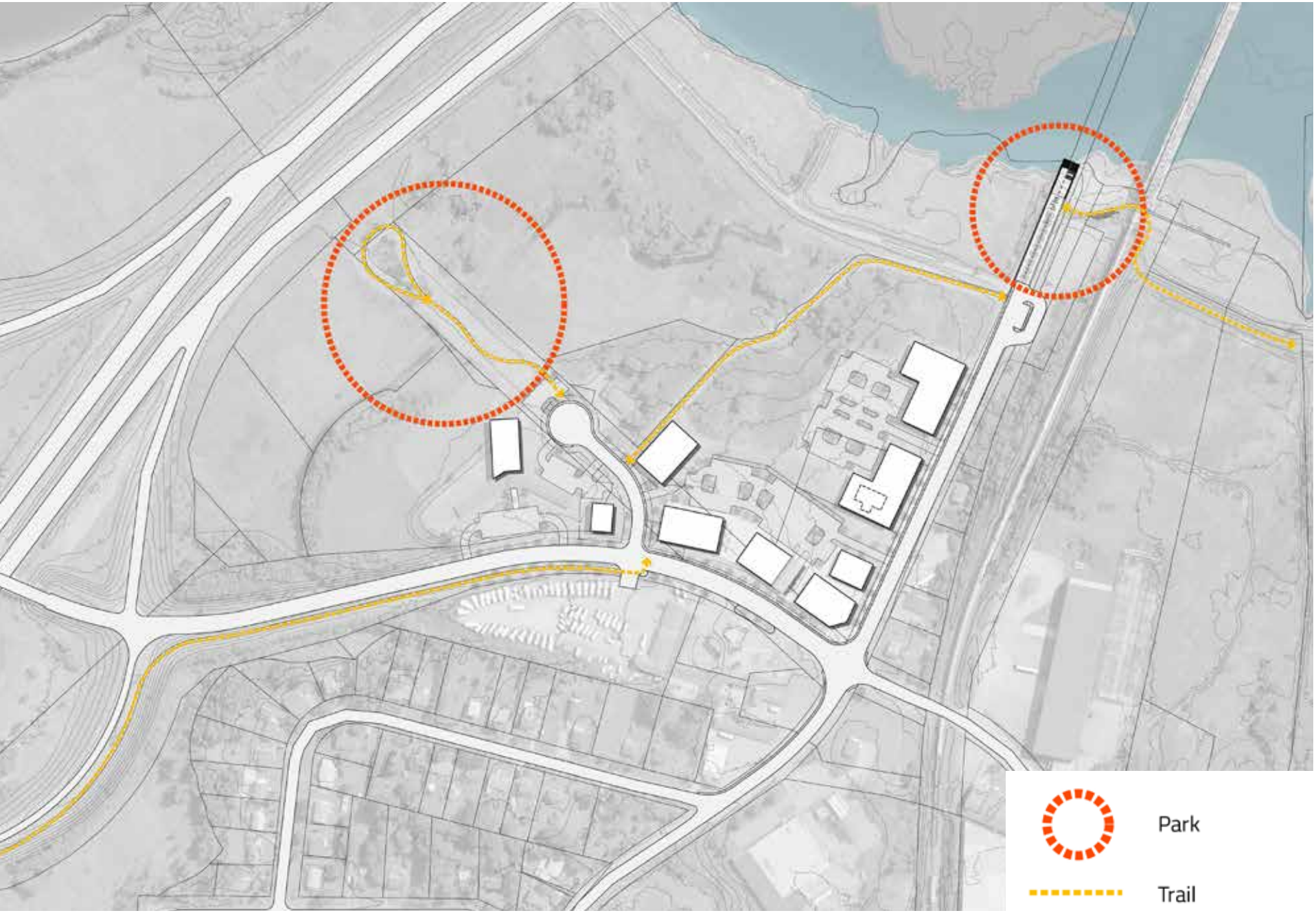
The area currently serves the town as a dog walking area, thus converting the unused portion of Robson Avenue to a naturalized trail takes advantage of the existing infrastructure and high elevation. The trail also allows for a perspective looking back towards what was once the historic race track that was demolished to make room for the interchange and Exit 506. This dog park has the potential to be marketed to allow for those travelling the Trans Canada with pets an opportunity to stop for a break, thus creating more synergy within Exit 506 for development.

The concept of Colville Park is very much a community driven initiative, as it was highlighted in both the community meeting and the on-line survey. Although there are a number of buildings and institutions in Sackville that commemorate the late Alex Colville's (1920-2013) artistic contribution to the community, there is not yet a memorial space that emphasizes his appreciation for the natural landscape of the area.

The park's simplistic linear and clean geometric design pays tribute to both Colville's methodical art practice as well as the historical geometry of the former bridge site. Its linear design guides park goers towards a lookout providing views of the rail bridge and Tantramar River, which were the subject of a number of Colville's paintings. The proposed lookout will also double as a wayfinding device and attraction to be seen from the Trans Canada Highway. Capitalizing on the beauty of the Tantramar Marsh as a park and natural area could further boost the towns tourism, and specifically the growth and development of the commercial area surrounding Exit 506.

Trail Network

Both proposed park sites will be linked by a trail network, which connects from the downtown to the dike trail along the Tantramar River.


Park
Trail

[RIGHT]
Vision for Alex Colville Park

Alex Colville Park commemorates the memory of the renowned artist who made Sackville his home from 1959 to 1973. Colville painted the scenery along the rail line and Tantramar Marsh in a number of his artworks. The linear park follows the historic path of Bridge Street and incorporates the ruins of the old bridge into a lookout.



3.7 Design Guidelines

Streetscape

The Plan proposes a complete street model to its streetscape design. A complete street is defined as a street that is "designed for all ages, abilities, and modes of travel," that "is not an afterthought, but an integral planning feature (completestreetsforcanada.ca)." Complete streets are a forward thinking planning strategy that is gaining popularity across Canada and abroad. Complete streets are just as cost effective as traditional car oriented streets, but also provide added benefits in regard to sustainability, safety, and public health.

The Plan recommends and 2m accessible sidewalk along the east side of Cattail Ridge and the north side of Bridge Street, as well as the creation of bike lanes at a 1.5m width with demarcated road painting. Bike lanes connecting the downtown and Middle Sackville to Exit 506 were among the top priorities for the community.

Additionally, street tree plantings are recommended in order to create a sense of arrival and place.

Building Height Ratio

The area's "Highway Commercial" zoning specifies building height at 9.1m (30ft), which is approximately 3 storeys. This building height falls under the typology of mid-rise, which is an ideal compromise when balancing the need to blend with the surrounding residential neighbourhood while maximizing lot capacity.

Parking and vegetation

Parking is to be located at the rear of the building development to ensure the area remains pedestrian friendly. Parking lots will included periphery and median tree and shrub plantings to provide shade and mitigate heat island effect.

Stormwater Management

Mitigating detrimental effects of stormwater on the site is of high importance, as much of the site is located within the Tantramar River floodplain. It is recommended that development within the floodplain zone be design to accommodate flooding. This may impact the building design at the eastern portion of the site. Buildings in this area should be elevated to allow water to flow naturally.

Stormwater from parking lots will be directed to a planted bio-retention strip along the edge of the paved surface. The bio-retention strip will cleanse the water before being direct to a low point where the water will infiltrate.

Trails

A trail network connecting the Exit 506 to downtown Sackville and along the waterfront dike trail was seen as a top priority for the community. In order to ensure maximum cost efficiently and accessibility, it is recommended that trails be surfaced with crusher dust at 1.5m width.



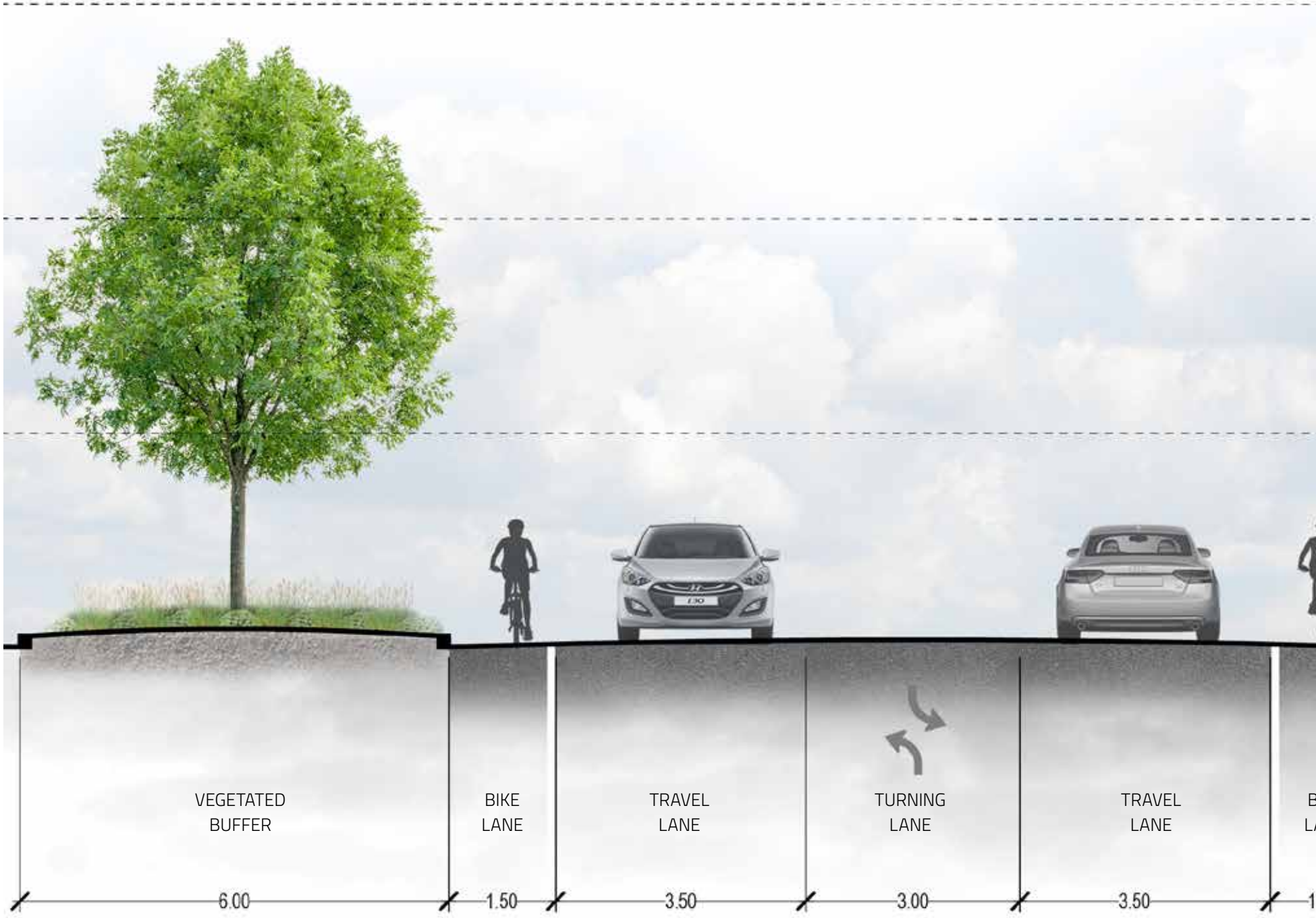


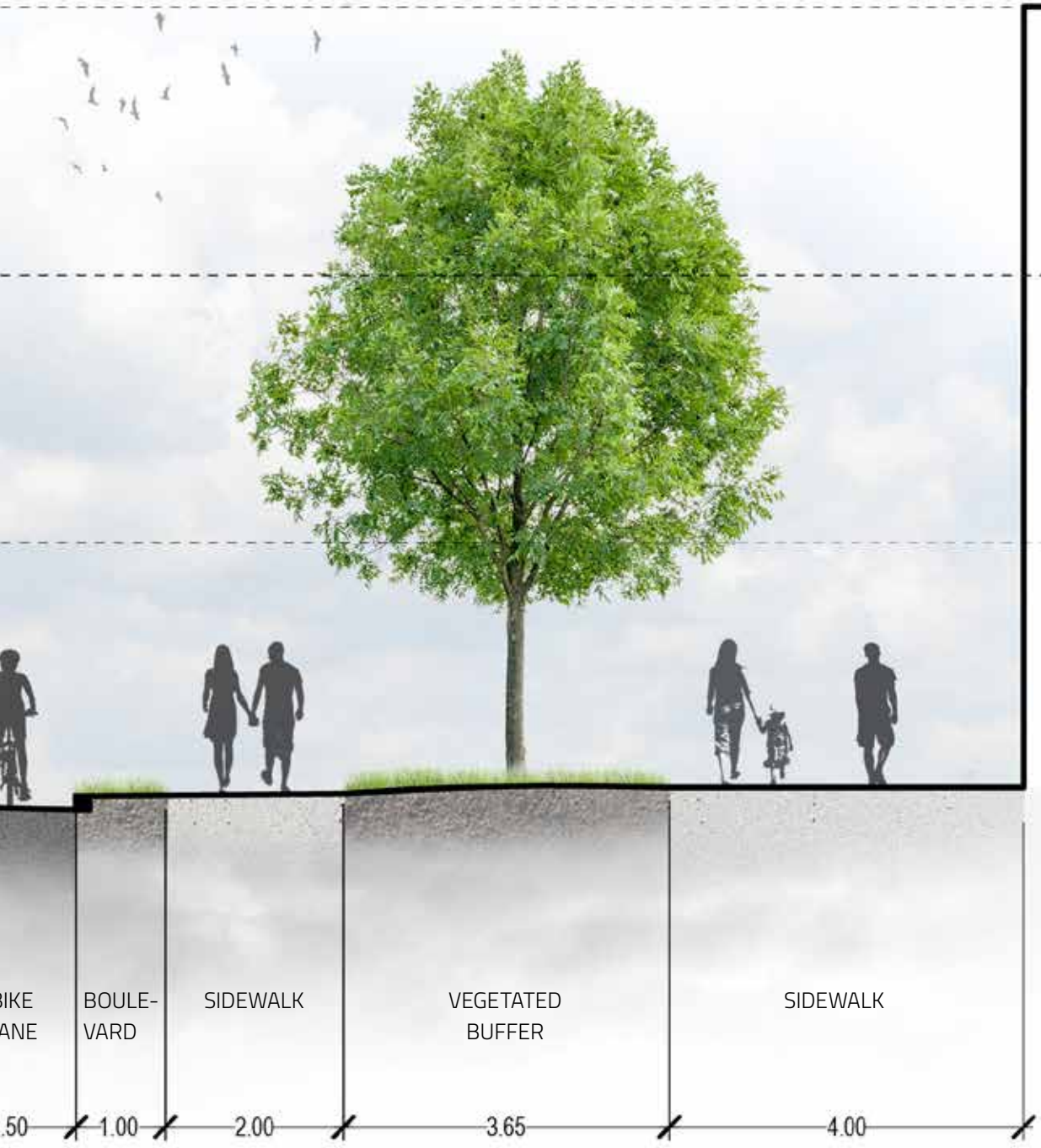
Vegetation

Parking lot water flow

Waterflow into bio-retention area

Purifying vegetation buffer


VEGETATED BUFFER
BIKE LANE
TRAVEL LANE
TURNING LANE
TRAVEL LANE
6.00
1.50
3.50
3.00
3.50



Complete streets encourage active living and safety, bring foot traffic to commercial storefronts, and help to connect Exit 506 to the downtown core.



3.8 Signage and Wayfinding

Directional Signage/ Wayfinding

Wayfinding signage was cited by many survey respondents as one the key improvements needed at Exit 506. Wayfinding signage is needed at key decision points including at roadway intersections and at trail entries. These are located in the adjacent diagram, which signify key decision points once within the Exit 506 area.

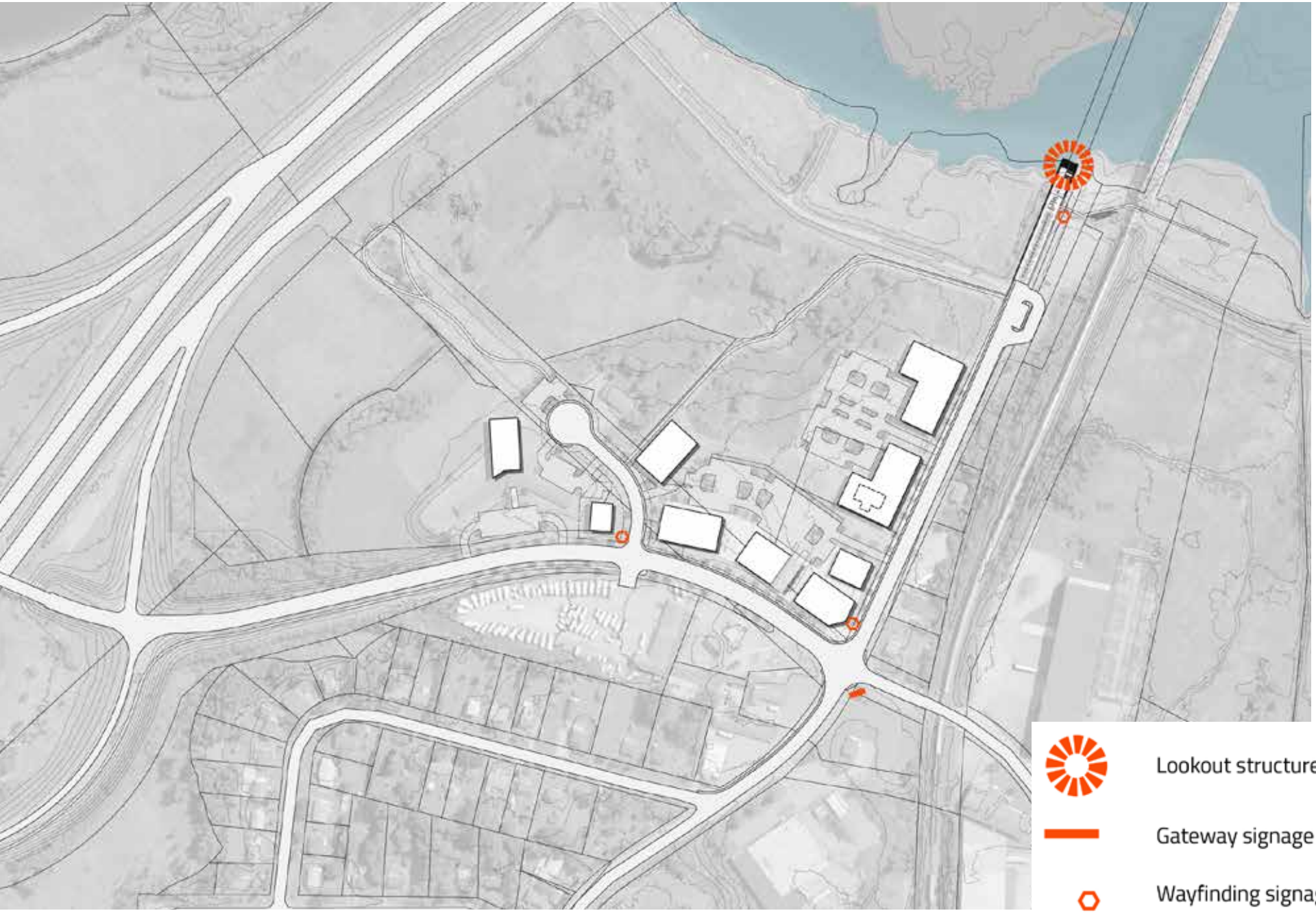
Town Signage

The present gateway signage at the intersection of Cattail Ridge and Bridge Street is in need of upgrade and does not do aesthetic justice to the charm of Sackville's downtown. Gateway signage is most successful when it provides an aesthetically distinctive landmark that expresses the character of the community.

Highway Signage Monument

The lookout structure incorporated into the Alex Colville Park design will visually engage visitors from the highway, acting as an iconoic signage monument.

In addition, the currently highway signage needs to change from Dorchester, to Sackville in order to encourage capture of visitors travelling from Nova Scotia.


Lookout structure
Gateway signage
Wayfinding signage

4 IMPLEMENTATION

4.1 Policy Change

Highway Commercial Zone: HC

The current Highway Commercial (HC) zone encourages strip commercial type development by including minimum front yard setbacks for buildings (min 25' setback), no site plan standards, no potential for residential development, and minimal landscape standards.

Creating a new zone could be problematic as it would require a plan (MPS) amendment. Instead, we would suggest modifying the existing zone to differentiate standards between exit 506 (and Stevens Road) lands and 504 lands. This approach will likely only require a zoning amendment.

There have been requests for a new ambulance service building at exit 506, which is not uncommon near an interchange where there is rapid highway access. The bylaw is not currently clear on where this use may be permissible. This zone change would be an opportunity to be clear on where this type use would be permitted. In our observation, as long as sirens are not turned on until they hit the highway (which is standard practice) the use should be compatible so long as it confirms to the other new standards

Amendments:

Add

6.1(a) ambulance services

6.1(d) ix) one native Caliper sized tree shall be planted for every 500m of lot area.

6.1(d) x) 2 sq.m. of shrub beds shall be planted for every 500 sq.m. of lot area.

change

6.2 Highway Commercial (HC) Zone Exit 504 (and Stevens Road)

add

6.3 Highway Commercial (HC) Zone Exit 506

Minimum Lot Size	901.2 sq m (9700 sq ft)
Minimum Lot Frontage	30.4 m (100 ft)
Maximum Front or Flankage Yard setback	6 m (20 ft)
Minimum Side Yards	3.1 m (10 ft)
Minimum Rear Yard	7.6 m (25 ft)
Maximum Lot Coverage	50%
Building/Structure Height	9.1 m (30 ft)



1. No parking permitted between the sidewalk and the building.
2. Sidewalk access to entry doors is required for every building.
3. Facade lighting to be provided to light the building and adjacent sidewalk to no less than 1 footcandle
4. Landscaping is encouraged on the street side of the building.
5. The street facade shall not be blank. Windows and doors are encouraged.
6. Drive-through lane access is not permitted between the sidewalk and the building.
7. Drive-through access must provide stacking for a least 144ft (8 cars) on private property to ensure cards to not stack on the main street.
8. Drive-through windows cannot front on main streets.

Mixed Use Zone

Convert Highway Commercial (HC) zone for the 2 multi-unit properties at the east of the study site to Mixed Use (MU) zoning. This may require plan amendments to allow multi-unit development in this area. Mixed use zoning will allow ground floor commercial uses with residential above. Like the new HC zoning changes, all parking should be in the rear of the property not between the road and the building.

4.2 Priority

It is important to capitalize on the momentum of the Exit 506 Land Use and Functional Planning Study. Priority for the Town of Sackville lies in the area of infrastrucutral improvements, safety improvements, and policy change. These items should be initiated as soon as possible in order to catalyze development.

1. Implement noted policy changes/amendments as per section 4.1 to attract potential developers to Exit 506.

2. Implement Main Intersection & Streetscape Improvements for safety and enhanced image.

3. Implement Robson Avenue Cul-De-Sac Re-alignment to ensure proper circulation and development.

A steering committee should be formed to develop the community-oriented assets such as Alex Colville Park and related community trail systems. This committee should focus on fundraising for both the design and development of these public areas. The Town should support the steering committee, and allocate any funds possible to the creation of these spaces that will undoubtedly draw people and attention toward Exit 506.

4.3 Cost

These class D cost estimates are created in 2018 dollars. Costs are arranged by the various projects outlined in this report. All site improvements on private land will be borne by the developer of the property. In addition, trails proposed on this plan should be either cost shared with the developer or parkland dedication fees for subdivision should be used to acquire trail lands. Trail right-of-ways should be at least 8m in width.

The total cost for all the public components of this plan are $611k including 20% contingency in 2018 dollars

Main Intersection Improvements	Estimated Quantities	Units	Unit Price	Estimated Cost
Line Painting Removal	80	m	$ 0.65	$ 52.00
Concrete Curb Removal	95	m	$ 15.00	$ 1,425.00
Bike Lane - Expansion on existing asphalt with base materials	55	sq m	$ 80.00	$ 4,400.00
Concrete Curb with base materials (inc. new island)	130	m	$ 65.00	$ 8,450.00
Concrete Sidewalk with base materials (inc new island)	150	sq m	$ 85.00	$ 12,750.00
Traffic Signage	1	ea	$ 400.00	$ 400.00
Line Painting	285	m	$ 3.00	$ 855.00
Topsoil and Sod	150	sq m	$ 7.50	$ 1,125.00
Total:				**$ 29,457.00**

Streetscape Improvements - Cattail Ridge	Estimated Quantities	Units	Unit Price	Estimated Cost
Line Painting Removal	220	m	$ 0.65	$ 143.00
RV Sales Driveway Removal	240	cu m	$ 12.00	$ 2,880.00
Concrete Curb with base materials	207	m	$ 65.00	$ 13,455.00
Concrete Sidewalk with base materials	203	sq m	$ 85.00	$ 17,255.00
RV Sales Driveway Asphalt	200	sq m	$ 50.00	$ 10,000.00
1.5m Bicycle Trai expansion	305	m	$ 50.00	$ 15,250.00
Line Painting	1460	m	$ 3.00	$ 4,380.00
Street Trees	8	ea	$ 700.00	$ 5,600.00
Topsoil and Sod	500	sq m	$ 7.50	$ 3,750.00
Total:				**$ 72,713.00**

Streetscape Improvements - Bridge Street	Estimated Quantities	Units	Unit Price	Estimated Cost
Bike Lane - Multi-use Trail 3m wide	667	sq m	$ 40.00	$ 26,680.00
Concrete Curb with base materials	222	m	$ 65.00	$ 14,430.00
Concrete Sidewalk with base materials	333	sq m	$ 85.00	$ 28,305.00
Line Painting	667	m	$ 3.00	$ 2,001.00
Street Trees	12	ea	$ 700.00	$ 8,400.00
Topsoil and Sod	270	sq m	$ 7.50	$ 2,025.00
Total:				**$ 81,841.00**

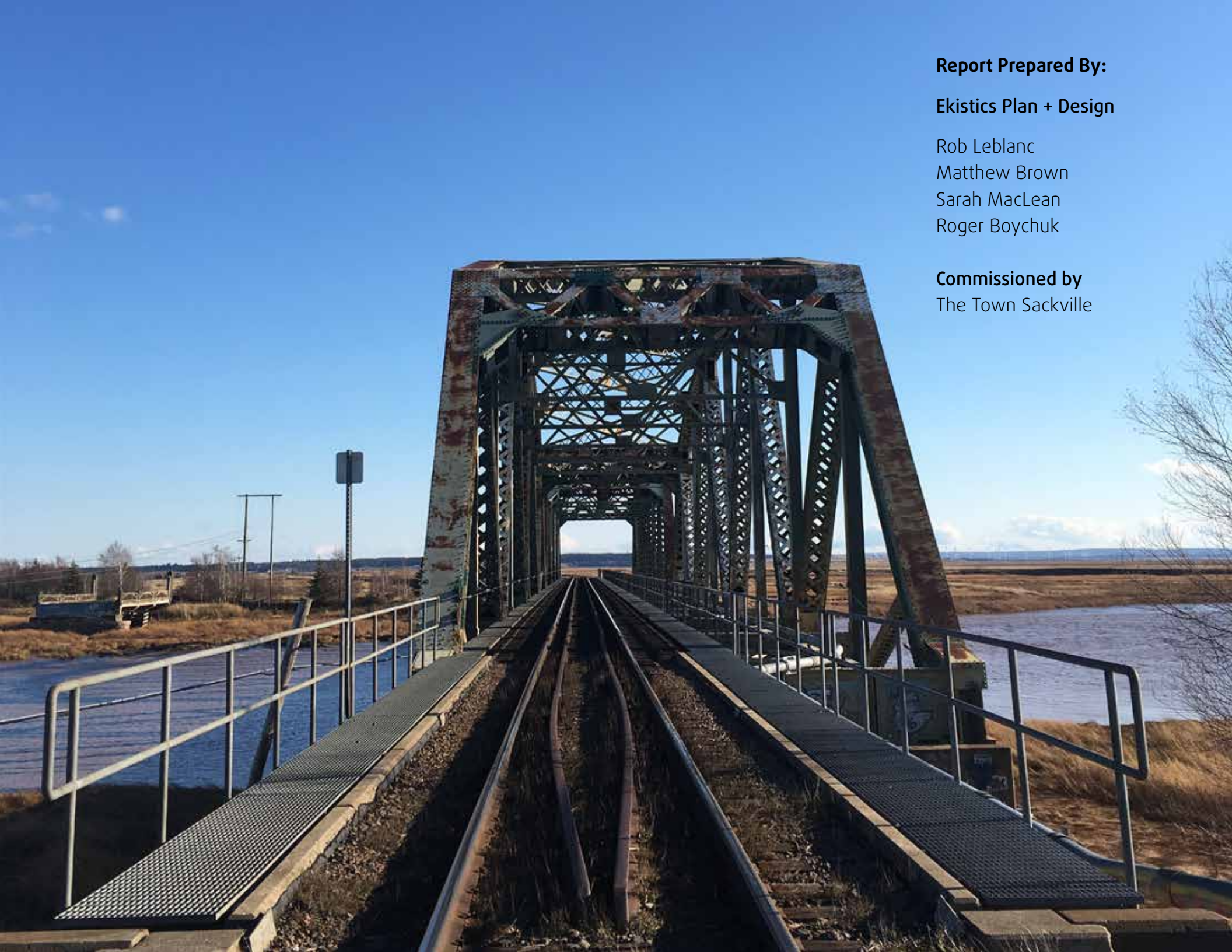
Robson Ave Cul-De-Sac realignment	Estimated Quantities	Units	Unit Price	Estimated Cost
Clearing and Grubbing	0.12	ha	$ 30,000.00	$ 3,600.00
Asphalt Granular base materials	1730	cu m	$ 35.00	$ 60,550.00
Asphalt	600	sq m	$ 50.00	$ 30,000.00
Concrete Curb with base materials	180	m	$ 65.00	$ 11,700.00
Concrete Sidewalk with base materials	270	sq m	$ 85.00	$ 22,950.00
Line Painting	103	m	$ 3.00	$ 309.00
Street Trees	8	ea	$ 700.00	$ 5,600.00
Topsoil and Sod	270	sq m	$ 7.50	$ 2,025.00
Total:				**$ 136,734.00**

Alex Coleville Park	Estimated Quantities	Units	Unit Price	Estimated Cost
Clearing and Grubbing	0.075	ha	$ 30,000.00	$ 2,250.00
Asphalt Removal in the Plaza Area	150	cu m	$ 12.00	$ 1,800.00
Asphalt Parking Granular base materials	330	cu m	$ 35.00	$ 11,550.00
Asphalt Parking	400	sq m	$ 50.00	$ 20,000.00
Concrete Curb with base materials	50	m	$ 65.00	$ 3,250.00
Concrete Sidewalk with base materials	75	sq m	$ 85.00	$ 6,375.00
Line Painting	186	m	$ 0.65	$ 120.90
Topsoil and Sod	270	sq m	$ 7.50	$ 2,025.00
Plaza Surface with base materials	670	sq m	$ 70.00	$ 46,900.00
Bollards	3	ea	$ 600.00	$ 1,800.00
Seating Blocks	9	ea	$ 1,500.00	$ 13,500.00
Trees	8	ea	$ 700.00	$ 5,600.00
Look-off Structure with steps and footings	1	lump	$ 15,000.00	$ 15,000.00
River Edge Trail	130	m	$ 30.00	$ 3,900.00
Total:				**$ 134,070.90**

Robson Ave Dog Park	Estimated Quantities	Units	Unit Price	Estimated Cost
Clearing and Grubbing	0.08	ha	$ 30,000.00	$ 2,400.00
Asphalt Removal	570	cu m	$ 12.00	$ 6,840.00
Asphalt Parking	300	sq m	$ 50.00	$ 15,000.00
Concrete Curb with base materials	110	m	$ 65.00	$ 7,150.00
2m Trail Crusher	270	m	$ 30.00	$ 8,100.00
Topsoil and Sod	270	sq m	$ 7.50	$ 2,025.00
Trees	4	ea	$ 700.00	$ 2,800.00
Total:				**$ 44,315.00**

Trail Network	Estimated Quantities	Units	Unit Price	Estimated Cost
Trail Crusher Dust	330	m	$ 30.00	$ 9,900.00
Total:				**$ 9,900.00**

Sub-Total	$ 509,030.90
Contingency (20%)	$ 101,806.18
Total	**$ 610,837.08**



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