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Parliament Hill
Ottawa, Ontario

This photo was taken during the 2019 Canadian Institute of Planners (CIP) Conference held in Ottawa. This conference was especially unique as it marked the 100th anniversary of CIP (originally the Town Planning Institute of Canada). Government involvement was an important step for early planning in Canada. Centralized government was initially the only form of government in Canada – it wasn’t until the 1830s that a form of local government was introduced. This allowed communities to more effectively respond to issues that were prominent in towns at this time, including major threats such as disease and fire, as well as the more basic issues such as road building and maintenance and garbage collection.
Just months before these photos were taken, this street was predominantly vehicle oriented. As part of a pilot project to improve public spaces in the ByWard Market area, a pedestrian-oriented plaza (completely free of vehicles) was created for the summer of 2019. These pictures show the vibrancy of the street during business hours, as well as the well-lit, safe environment after hours. The mixed use zoning regulations in this area allow for residential uses in the same building as commercial and encourage Jane Jacob’s concept of ‘eyes on the street’, further enhancing public safety.
Regional planning policies are important to balance the spatial, environmental, and economic goals of an area while reducing conflict and competition for resources between regions. Regional planning can also focus on creating a sense of place that entices both locals and visitors to return in order to further promote the particular resources of an area. Tourism can largely contribute to the success of local economies, so it is important to create policies that mitigate the potential negative effects of increased traffic in a region.
Architectural landmarks aid in placemaking as well as wayfinding. Calgary’s downtown often integrates historical buildings with modern architecture for a unique and culturally rich outcome. These buildings have helped revitalize the downtown core by creating interest worldwide that attracts a diverse demographic throughout the year.
The above sketch features Peace Bridge in Calgary. Pedestrian connection is an important consideration in a community, and this bridge accomplishes additional connection while adding an interesting architectural feature to the community and improving the public realm.

The above water color rendering of Lake Pend Oreille, Idaho, was layered with the original photo to create this product. I decided to include this as I find it to be a natural, serene scene – an important consideration to incorporate into urban areas, as natural elements have been proven positively influence the mental health of urban dwellers.
The above sketch was based on a picture taken in Venice, Italy. This area was built prior to the invention of vehicles and thus designed entirely for pedestrians, making travel pleasant and safe. Dwelling units exist above ground-level shops. This compact development allows for amenities within walking distance of homes.

The sketch to the left is based on a street in Boston, Massachusetts. Urban greenery is not only present at ground level but also on upper storeys, which are often stepped back after a certain storey to allow sunlight to reach the street for longer. These step-backs allow for outdoor amenity space for the buildings’ residents, and the additional soft landscaping creates a more attractive public realm.
As part of a geography course focusing on urban growth as a result of economic influences during my undergraduate degree, our group created a poster that summarized the contents of our term paper on human trafficking, specifically in Thailand, where the illegal industry has been growing for years. Using Adobe Illustrator, we provided an introduction to the issue and the contents of the paper, and then broke the poster into the four most important sections. We used the white circle in the background to show the connections between the topics, as well as images to better illustrate the statistics outlined in the paper. One other group member and myself produced the final layout and design of the poster in consultation with other group members.
As part of the capstone course for my undergraduate degree, my group analyzed the area of Bowness that is located in the floodplain to develop potential flood mitigation techniques, both physical and administrative, that could increase the resilience and sustainability of the community in future flood events. I focused on aspects that could be illustrated with Geographic Information Systems (GIS), including flow accumulation maps for the study area (above). I used a roads overlay on one map to illustrate the correlation between impervious surfaces and flow accumulation. I also used a stormwater drainage system overlay to determine potential improvements to the current system. These illustrations enabled our group to determine best locations to integrate stormwater management techniques such as stormwater ponds and bioswales into the community.
This poster was created in Adobe Illustrator as a part of an undergraduate transit course, for which a Green Line Station Area Plan was created. We were to compare our station with another with similar surroundings, attributes, and constraints. I chose Clarendon Station, Washington, for its similarities to the proposed Inglewood/Ramsay Green Line Station. I created and designed the poster, while my group partner created the featured maps.
This comprehensive Station Area Plan was created as a part of the transit course for which the previous poster was created. It includes information such as the context and existing conditions of the two adjacent communities, as well as a vision for the station area. Policies pertaining to the built form and design of the area, as well as public realm and transportation networks were created in order to influence future development in the area to eventually attain the vision set out in the plan. Although this was a group project, I was entirely responsible for the design and layout of the document, as well as determining which sections were to be researched and included. Multiple videos were also made for this project to better illustrate the concepts contained in this plan and to provide another form of communication. The final concept plan is illustrated on the last page of the document.
1.0 Introduction

The Inglewood/Ramsay Station is part of the Green Line, Calgary’s next Light Rail Transit (LRT) line that is designed to promote Transit Oriented Development (TOD) within the City of Calgary.

1.1 Community Context

The communities of Inglewood and Ramsay are home to vibrant, pedestrian oriented activity hubs, where boutiques, eateries, art galleries, office spaces, and industrial areas are all present. The area is long-standing, as indicated by Inglewood’s title as Calgary’s oldest neighbourhood, so historical buildings such as the Snowden Building and Ramsay Design Centre are present. The Area Redevelopment plans for the space aim to maintain the two communities’ existing character while preserving their heritage atmospheres. The development process for the Inglewood/Ramsay Green Line station aims to preserve and accentuate the many features of the area enjoyed by citizens, while eliminating undesirable features.

1.2 Station & Location

The Inglewood/Ramsay Station is to be an elevated station situated parallel to the rail line above 11th Street SE. The station will sit on the south side of the rail line, and the entrance to the station building will sit on the east side of 11th Street SE, behind an outdoor plaza designed for public use.

1.3 Existing Conditions

1.3.1 Land Use

Map 1.3.0 shows the existing land use designations in the areas surrounding the Inglewood/Ramsay Station, where Residential and Industrial uses are prevalent. Much of the surrounding land use designations in this area consist of residential contextual one/two dwelling (R-C2) units, effectively creating a...
commercial activity hub along 9th Avenue SE. This street is the main core of the two adjacent communities, from which the communities’ major routes branch. S-R, Special Purpose - Recreation can also be found in Inglewood. Notably, Pearce State Park is located on the northern side of the community. There are currently multiple underutilized sites surrounding the proposed Green Line Station location, offering ample redevelopment opportunities – specifically opportunity for Transit Oriented Development.

Built Form
The surrounding residential neighbourhoods’ building heights are generally 1-2 stories. The industrial areas surrounding the station are generally 3-6 stories.

Public Realm
The area around the station location consists of residential, industrial, as well as undeveloped parcels, limiting the current potential for a vibrant public realm.

Mobility
Pedestrian Network
The existing pedestrian network in the communities is fair. Major connections lie along 8th Street Southeast, 12th Street Southeast, and 17th Avenue SE for both Inglewood and Ramsay, and 9th Avenue Southeast for Inglewood. There are also two major pedestrian crossings for the Elbow River on the west side of Inglewood, and one on 17th Avenue for Ramsay. Minor existing pedestrian connections lie between most of the blocks in the commercial areas of the respective communities.

Cycling Network
The current bike pathway follows the river along the edge of Inglewood and turns north on 12th Street SE. It also connects to the regional pathway along New Street SE in Ramsay. The regional pathway follows the banks of the Elbow River.

Transit Network
The Bus Rapid Transit (BRT) route currently runs along 11th/12th Street southeast. The closest bus stop to the station area is adjacent to 19th Avenue southeast.

2.0 Vision & Guiding Principles

2.1 Vision
The Inglewood and Ramsay station will be redeveloped into a walkable, transit oriented development and diverse area. Citizens will benefit from a variety of activities, a mixture of uses, and services and facilities that will be connected by streets and sidewalks in convenient walking distances in this area. By preserving the historical buildings in this area, an attraction site that has long given character to the history of the community and city will remain. The new development plan will focus on creating an active public open space with a pedestrian friendly environment and will also add new office space, increasing the number and diversity of nearby employment opportunities.

2.2 Guiding Principles
These principles are to be taken into consideration during the Inglewood/Ramsay Station Area development process in order to create sustainable, enjoyable, TOD.

1. Preserve Historical Architecture
Historical architecture will be preserved by maintaining the two historical buildings at their original location, and only renovating the inside of the buildings if their existing supports are deemed stable.

2. Multi-Modal Transit Hub
Different modes of transportation such as LRT, bus, car, cycling, and walking will be accommodated at this transit station. It will be a primary transit hub with a high level of convenience for transit customers. Transit users can park their cars using the ParkPlus machines that are located in the Inglewood street, as well as the ParkPlus lots in the area.

3. Higher Density
Increased densities are one of the main goals of this plan, specifically within the Ramsay area. Higher density generates opportunities such as new spaces for living, employment, and commercial activities within a comfortable walking distance of the transit station area.

4. Mixed-Use Development
A mix of land uses in close proximity will bring enhanced diversity, increase citizen engagement, and allow people to enjoy...
a variety of different activities within the same
neighbourhood of their work and home.

5. Walkability
Pedestrians are the most important factor
to consider with TOD sidewalks, pathways, and
streets. The streets and sidewalks should be
designed in such a way that the space supports
a mix of different activities, and tailored to
emphasize walkability and direct paths of
access while enhancing pedestrian safety.

6. Urban Placemaking
Create meaningful public spaces that promote
people’s happiness through public art,
landscape features, and architectural
details. The development should also
include attention to the physical, cultural and
social identities that define a place, leading to a
better connection between people and the
places they share. There will be locally owned
businesses on the ground floor of the station
where citizens can interact (and grab a
morning coffee) while waiting for the
train. Suggestions about public art will be
given to the developers in order to build a
design that would represent the Inglewood
and Ramsay community. Also, the plaza
located in this area will function as a venue for
different music and community events.

7. Complete Streets
More liveable neighbourhoods are created
with complete streets, which
encourage citizens to use different modes of
transportation, including walking
or cycling. Streets should also be created with
pedestrian, cyclist and motorist safety in mind.

8. Sustainable design
Sustainability is another important factor to
take into consideration while designing
infrastructure. Developers are advised to
consider using Smart Glass which offers great
energy efficiency in the station in order to
control the amount of heat or light that passes
through the glass. This strategy maximizes the
daylight, minimize glare, and eliminates the
need for blinds and shades in the station. Solar
panels will be located outside of the station
and on its roof, as well as the nearby bus
shelter’s roof, to convert the solar energy to
electricity in a more sustainable and efficient
manner.

9. Design for Climate
The designs should ensure that this station
contains outdoor waiting areas as well as
heating enclosed waiting areas in order for
citizens to feel comfortable in all weather
conditions while waiting for transit.

2.3 Attributes & Constraints

Attributes
Potential Bus Bay along 12th Street SE
There is plenty of space and along the east side
of 12th Street SE to allow for a bus bay near the
station location. The BRT is routed on 12th
Street, so an additional bus stop near the
location could easily be incorporated. The
west side of 12th Street has fewer options to
build a bus bay, as there is less space.
3.0 Plan Concept

3.1 Land Use & Density

Land Use Designation and Rezoning
The zoning of the station's surrounding parcels currently ranges from Residential to Industrial to Special Purpose districts (as shown by Map 3.1.0). Since the future Green Line station site itself (as well as many of the parcels immediately adjacent to the site) already allows for the proposal, few of the existing parcels will need redesignation. However, it is recommended that said parcels are redesignated to a title of Direct Control (DC) or a Special Purpose designation. This allows each parcel of land to be designated by the city in a more generalized manner, which affects allowable future construction on the surrounding parcels connecting the community and Green Line.

Land Use Sectors
Three main sectors are apparent in the communities of Ramsay and Inglewood. Since both communities consist mostly of R-2, the expansion and focal points for each community can be laid out in the following categories.

3.2 Built Form & Site Design

Development should wholly respect the existing rich and pedestrian-friendly neighbourhood context of both Ramsay and Inglewood and as such should adhere to the following guidelines:

3.2.1 Design Policies:

Sustainable Design
Where possible, new design should adhere to LEED regulations, and preference will be made for applicants who are able to integrate these design elements.

Designing for a Heritage Context
• Architectural controls for the materials of the new development are to either adhere to the existing built form directly through the use of similar material palettes or indirectly in creating a design vision for new buildings that makes an appropriate architectural gesture towards the existing form.

Pedestrian Considerations
• Where prudent, main building entrances should access the major pedestrian thoroughfare. Similarly, where possible, balconies and window placement should be designed as to consider keeping sightlines to the street especially along 12th Street SE.
• Building massing should be articulated as to retain existing visual site lines and allow for maximum sunlight on any major pedestrian thoroughfare. To achieve this, terraced buildings, stepped back towers and/or modular building facades are to be preferred for larger scale buildings.
• Storefront facades along the west side of 12th Street SE are to include continuous linear canopy/awning work to provide year-round overhead cover.
• Storefront along the east side of 12th Street are to focus on providing heated bus shelters.
• Provide visually stimulating "fine-grain" building frontages along 12th St SE that include a variety of widths, heights, material changes, and projections to "break-up" portions of a single building face or wall.

mixed-use core. Used for transit accommodations and infrastructure, as well as a walkable space in order to transport patrons to their final destination.
3.2.2 Building Heights

1-2 Stories: Building heights in these areas are limited to 1-2 stories both to respect the existing single-detached residential neighborhood context and to provide a pedestrian scale to major pedestrian paths-of-travel to the station.

2-4 Stories: Building heights in these areas are limited to 2-4 stories both to respect the existing single-detached residential neighborhood context.

3-5 Stories: Building heights in the blocks indicated are 3-5 stories in an effort to add density proximal to the station.

In addition, they do not block views of the existing residential areas due to the change in grade towards the Ramsay escarpment nor do they cast shadows over any other residential neighbourhoods.

5-7 Stories: And finally, 5-7 stories in building height are allowed for in the indicated areas as they present no opportunity to cast shadows over existing neighbourhoods and match the existing scale of the existing Brewery District to the East and the LocalMotive Building to the South East of the site.

3.3 Public Realm

The public realm is the area accessible to the public, including area within, outside of, and between buildings. It may include streets, pathways, parks, and open spaces. This plan will discuss improvements at existing spaces, as well as the development of some unused and underused spaces to make them more attractive to the public. These developments will focus on pedestrian and bicycle linkages, safe and secure environments, and design that considers the factor of climate.

Public Space and Parks

Public spaces and parks should be accessible to everyone, and well-connected through pathways. They should generally achieve the following:

- Reflect the character of the area
- Include multi-use spaces that allow for a variety of activities
- Be designed for round-the-year use and include weather protection
- Incorporate CPTED principles, including:
  - Good lighting
  - Clear sight lines
  - Natural surveillance through visibility
  - Other surveillance, if needed

Station Plaza

The station area will feature a public, multi-use plaza that will be utilized for public events.

Policies

Paths

- Connect main local roads to transit station
- Provide direct routes of travel

Multi-use

- Provide space for public gatherings and activities
- Transition of use based on time of day and season

Lighting

- Well-lit pathways and traveled areas
- Stations and waiting areas to be well-lit
- Enhance overall design scheme

Sight Lines

- Refrain from obstructing open spaces
- Refrain from constructing alleyways

It will be a key feature in the “urban placemaking” aspect of the new station location.

Character

- Protect historical buildings
- Use materials that enhance existing character: red brick, wood and steel facades

Design for Weather

- Heated, enclosed bus shelters
- Pedestrian cover
- Permeable sidewalk substrate
- Adequate drainage systems

Seating

- Comfortable, for use in public areas
- Use of sustainable, weather-resistant materials
- Enhance overall design scheme

Surveillance

- Encouragement of public use and activity
- Surveillance cameras in key areas
- Help stations
Policies
- Accommodate a mix of uses and activities, such as scheduled community activities and concerts
- Space along perimeter for temporary retail, such as food trucks or flea markets
- Potential for cultural enrichment such as a centrally-placed piece of public art or a sculpture that relates to the history or character of the area
- Public seating in the form of stationary or moveable elements

3.4 Mobility & Transportation Networks

Priority of Transportation
Walking
Cycling
Public Transportation
Automobiles

Pedestrian Network
A new LRT station will bring increased flows of people and traffic within the Inglewood and Ramsay communities. The station area will be designed with different modes of transportation in mind, and the walkability of the community will be a large factor in the plan. The biggest priority will be on pedestrian accessibility and safety, followed by cycling, transit and driving. Since the station will mainly be servicing people in the Inglewood and Ramsay communities, we want to ensure that it is easy to reach the station via a direct and convenient route.

Policies:
- Existing sidewalks will be maintained and enhanced with signage and highly visible road markings for crosswalks, such as zebra lines and signs indicating pedestrian crossings as well as speed limits
- Shorter blocks are to be arranged in a grid to encourage drivers to maintain reduced speed, and enhance pedestrian safety
- Ramps and elevators are to be included at key points for universal accessibility

Emphasis for pedestrian access will be placed along 11th and 12th Street SE, where sidewalks will be widened. A new bridge at the station area location will reduce the chokepoint for pedestrian access across the CPR line.

Cycling Network
Bicycle lanes will be constructed along 11/12th Street Southeast to create complete streets and will connect to the river pathway in Inglewood. On the Ramsay side, a bike lane

Transit Network
Current transit routes for regular buses will be kept the same. Service along 11/12th Street SE will be prioritized, with increased frequency of buses during rush hour. As the Bus Rapid Transit route already runs along 11/12th Street SE, the new station will be serviced by this route.

Street Network & Parking
Existing roads will remain mostly unchanged, except for the retrofitting of 11/12th Street SE to comply with complete streets standards. Future changes will be considered if there is a large increase in traffic volume.

The location and layout of this station, as well as the nature of the surrounding residential area means that new parking for the LRT will be limited. Similar to the Sunnyside Station, the area will be emphasized as a hub accessible by foot and by bike, encouraging alternate forms of transportation.

A Park & Ride will not be built at this location.

Streetscape Design and Complete Streets
Many of the non-commuter patrons for the proposed station will likely be drawn to businesses and shops located in central Inglewood, along 9th Avenue SE. Continuing momentum along 11/12th Street SE in the form of cultural businesses, walkability, and attractive design is likely to increase use along this route.

In the context of Inglewood, a complete street is limited by a lack of available space due to pre-existing developments, but a variety of complete streets elements could still be implemented to benefit the public realm and walkability of the area.

Figure 3.4.2 11/12th Street SE, Facing South

11th and 12th Street SE
11/12th Street SE is one of the main access corridors for both communities, as well as a route for commuters. It is to be retrofitted as a complete street to increase accessibility and safety for all modes of transportation, and to enhance the public realm. As part of the retrofit, the following criteria should be considered:

- Situation of cultural attractions and eateries
- Bike lanes on the west side, travelling in both directions
- Median and physical barriers separating bikes and traffic where possible, increasing cyclist perceptions of safety and increasing ridership
- Increased widths of sidewalks on both sides, allowing for higher pedestrian accessibility
- Increased signage and road features such as painted zebra crosswalks and overhead crosswalk signs with blinking lights
- Relocation of power lines to less intrusive locations
- Hard and soft landscaping features, including benches and pathways as well as trees and planters

Figure 3.4.3 11/12th Street SE, Facing North
Another project I completed in an undergraduate GIS course involved the analysis of population pattern changes in certain countries in order to predict future population densities (India and the United Arab Emirates were also analyzed). The most noticeable trend when analyzing the data was the declining population in rural areas which likely contributed to the increasing urban population over time.
I have been employed with the Town of High River for the past two years as a Municipal Planning Intern. The main project for which I have been file manager has been a monitoring program for the innovative, award-winning Land Use Bylaw that was adopted in 2017. This bylaw incorporates form-based planning with the traditional use-based planning approach that has been widely used across North America over the past century. The Town was finding that the use-based approach of traditional bylaws was creating difficulties in achieving the objectives outlined in the Town Plan. To address this issue, a ‘hybrid’ bylaw was created, with two guiding principles that all development is to follow. The number of land use districts was drastically reduced (to a total of six) in order to better achieve mixed-use, compact communities and allow applicants the flexibility to produce creative, sustainably designed developments that are built to the pedestrian scale. The monitoring program focused on six key indicators, outlined in the diagram above, to effectively evaluate all aspects of Land Use Bylaw 4510/2017. The program came to a close in October of 2019, and the final report and presentation is to go forward to High River Council early 2020. Amendments to the bylaw will be made based on the findings of the monitoring program. At this point, I have facilitated one workshop to determine solutions to the issues that have arisen over the course of the two year monitoring program. The findings of this workshop will be presented at future public engagement opportunities that I will organize and execute.
Another project in which I have been highly involved is the Town’s 2020 Annexation Application. I worked in conjunction with the Town’s GIS Department to create the below map. The three areas shown on the map comprise the proposed annexation territory. Extensive public consultation has been carried out for this project, including multiple open houses, which I aided in facilitating, and a public hearing for which I created and delivered the presentation. The annexation agreement was recently endorsed by both Town and County Councils, and the application will soon be submitted to the Municipal Government Board (MGB).

Subdivisions & Development Permits

The main day to day job involves current planning projects – the subdivision and development permit requests that come through the department. I have been involved in both major and minor subdivision and development permit applications. Unique to High River is the Land Use Bylaw’s encouragement for collaboration between Town staff and applicants, allowing for many staff suggestions to be incorporated into final plans. This helps to create developments that are sustainable and focused on the pedestrian – developments that ultimately support and work toward achieving the vision set out in the Town Plan.
Thank You