



Main Streets Program:

33rd and 34th Avenues SW Marda Loop Streetscape Master Plan

Final Report

March 2019



Acknowledgments

The Marda Loop 33rd & 34th Avenues SW Streetscape Master Plan is a compilation of ideas and recommendations to improve the public realm and visitor experience within the Marda Loop area. The development of this plan would not have been possible without involvement from the design team, the City of Calgary Urban Strategy, local businesses, an active development community, and a handpicked steering committee comprised of City of Calgary representatives. This Master Plan was presented and approved by the *City's Transportation Leadership Team* in March of 2019. The following document is the result the hard work and passion of those individuals. Special thanks to the following contributing members:

City of Calgary Steering Committee City of Calgary Urban Strategies

Represented business units:

- Calgary Transit
- Community Planning
- Livable Streets
- Network Planning
- Parks
- Roads Traffic
- Transportation Planning
- Transportation Infrastructure
- Urban Forestry
- Urban Strategy
- Urban Design
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In Partnership with



Executive Summary

The concept of a main street reflects the integration between public space, businesses, and people. While the corridors of 33rd and 34th Avenues SW have long been delivering on that balance, the growth in this area has not always been integrated and aligned; resulting in a fragmented main street that is less pedestrian friendly than desired. The 33rd and 34th Avenues SW (Marda Loop) Streetscape Master Plan (the Master Plan) aims to deliver on the City of Calgary Main Streets program. For additional information see:

www.calgary.ca/Mainstreets/

The nearby communities require the Master Plan to act as the backbone of the area, setting the tone for future development and a clear vision for Marda Loop from Crowchild Trail SW to 14th Street SW. The Master Plan addresses the need for improved pedestrian realm, safety, community space, connections and enhanced landscaping.

The Master Plan has been designed to be implementable, financially achievable, technically sound, and rooted in community feedback. This has been done through partnership with stakeholders, community, businesses, City staff, and City elected officials. The Master Plan is meaningful to the communities surrounding the Marda Loop area and to Calgary; the design is public-oriented, focused in key areas, solves problems for the communities, and provides for public space.

The intent of the Master Plan is to execute the vision developed through community engagement within the context of the Marda Loop area. This is done through tying each element of the design back to the goals and objectives, its ability to be implemented and to how it responds directly to the needs of the communities.

While many components of this Master Plan will be refined during the detailed design and construction phases, the Master Plan concept provides the outline and form of a vibrant public realm, one which supports a mixture of private and public uses and aims to address the major issues within the ever-changing urban context of the Marda Loop Main Street.



Intersection 19 St. SW + 33 Ave SW

Introducing Calgary's Main Streets Program

Background

The Main Streets program is one of the ways that The City of Calgary is working to make our city ***"a great place to make a living, and a great place to make a life."***

The program shares The City's common purpose of ***"making life better every day"*** by implementing a comprehensive process to transform our main streets into places where people want to live, work, and play.

Main Streets Vision + Principles

A Main Streets Streetscape Master Plan is about more than improved accessibility, safety, and beautification. It is about placemaking, creating vibrant places that put a priority on sociability, access + linkages, comfort + image, and uses + activity.



View Looking North - 20th Street SW

Each Main Streets Streetscape Master Plan is unique through its expression of specific design principles. The 33rd and 34th Avenues SW (Marda Loop) Streetscape Master Plan (the Master Plan) puts a high value on providing design solutions and identifying opportunities to improve safety and the pedestrian experience in order to activate the spaces along the main street. As outlined by the City of Calgary, the vision and principles for corridors that are part of the Main Streets Program are as follows:

The Vision

Main streets are places where citizens come together. They allow us to travel less and live more by providing the things we need right in our own communities.

Design Principles:

Main streets are resilient, adaptable, and attractive public spaces that:

- Celebrate the **Character** of the community;
- Enhance the **Diversity** of local businesses + residents; and
- Create a vibrant **Destination**.

The City of Calgary's main streets are unique places full of character, diversity, and energy. They are inclusive, evolving, and help bring out the best in the community.

How to use this plan

This Plan establishes a long range vision for Marda Loop. Through the engagement process a series of Design Principles and Urban Design Strategies were created. The following section is a guide for how to use this document.

Coordination with development

With each development, there is an opportunity to use The Master Plan to guide the design of the public realm and how it interfaces with the development site. Opportunities should be identified for the potential to build sections of this Master Plan that are beyond the identified phasing plan, see Section 5.1 - Phasing, especially when it aligns with new development or construction. The Master Plan provides direction to applicants and administration during the development application stage.

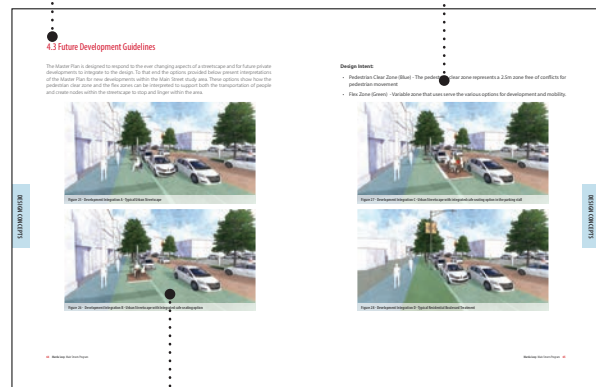
Coordination with other projects

As a developing and growing community, there is a need within the implementation plan to reduce the impact to residents and businesses of ongoing construction. This can be best achieved through coordinating infrastructure replacement with either City work (e.g. utility work) or private development (i.e. private construction). The phasing plan located in Section 5.1 - Phasing is a high level estimate as to how construction may occur. Should a major City project or development move forward within the Marda Loop area that was unknown during the writing of the Master Plan, the phasing should be revisited to allow for as little impact to the community as possible.

Future Development Guidelines

Design Intent

Highlights key design intent for integration with future development.



Conceptual Renderings



Proposed Land Use Map

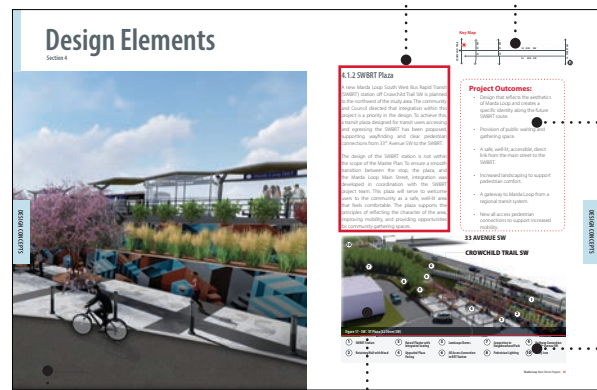
Development Map

Key Design Elements

The key design elements within the study area provide an opportunity to connect adjacent projects to support the vision of the Master Plan. An example is the future SWBRT station, the station is an important destination for people traveling in and out of the area and as such this Master Plan identifies an opportunity to create a plaza space highlighting potential design features and pathway alignments that tie into the future station. These areas are also opportunities for community partnerships and/or temporary installations. Highlighted in the design principles box are the key elements of the design and how they respond to master plans vision and goals. Highlighted in the key map is the location of the design intervention in relation to the Master Plan study area.

Design Strategies

Location Map



Intended Project Outcomes

Key Design Elements

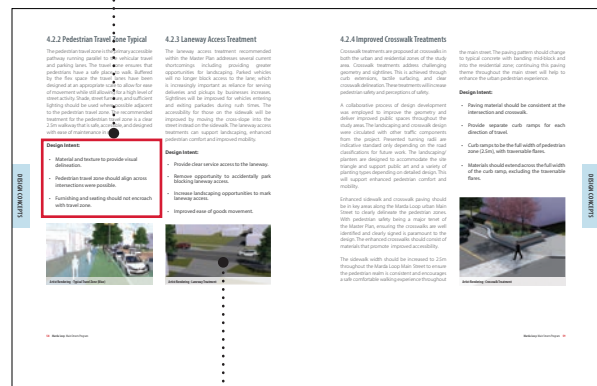
Conceptual Rendering

Key Map

Materials

The materials presented here are conceptual for rendering purposes and/or represent existing materials that are in use now. At the detailed design stage, the material selection will be made with higher certainty. During that work, effort should be taken to adhere to the design intent presented in this Streetscape Master Plan, presenting practical options which provide a cohesive and modern solution to the Marda Loop Main Street. Attention should be made to selecting materials that are easily sourced and require minimal maintenance, customized items should be limited to the key design elements within the Master Plan. Standards should be treated as a minimum and not limit design solutions.

Proposed Design Intent



Conceptual Rendering To Highlight Design Intent

Project Goals

Describes the five design goals of the Master Plan and the objectives and strategies used to achieve the goals. These goals are the result of the master plan process.

1.5 Intent, Goals and Objectives, + Strategies

The intent of the Master Plan is to lay the foundation for phased improvements to the streetscape in a neighborhood context. The improvements highlighted in the following sections are aimed to create a streetscape that includes well-designed public space, walkable streets and public space that provides the pedestrian experience and will help to support ongoing development through a vibrant economic and retail environment in the Marda Loop area.

Key themes, goals, and objectives were identified based on the analysis of the existing conditions, technical input and community engagement. Public engagement, on the survey, and key stakeholder meetings has informed the development and plan that is intended to help guide the Master Plan. These goals informed the content of the design elements, design objectives, and the implementation design standards. The following goals are outlined in the framework to phase the Master Plan:

Goal 1: Prioritize the pedestrian.

Objectives + Design Strategies

- Encourage the pedestrian experience in the vicinity of other streetscape design conflicts.
- Identify opportunities within the right-of-way to facilitate space to support movement: safety, amenability, and pedestrian comfort.
- Create a continuous streetscape design that is safe, well connected, well lit, and comfortable for walking.
- Provide comfortable walking routes with a clear path to the right of the sidewalk.
- Design for potential accommodation of street and plaza uses.
- Support pedestrian movement with the use of signage to improve safety and enhance the pedestrian experience.

Goal 2: Enhance landscaping to support pedestrian comfort.

Objectives + Design Strategies

- Provide objectives for landscaping that support the vitality of the streetscape.
- Select tree species that align with the City of Calgary approved species.
- Provide design alternatives for tree planting to accommodate utility conflicts and/or lack of cut columns.
- Incorporate design approaches that support implementation.

Goal 3: Develop unique streetscape elements that clearly delineate the Marda Loop Urban Form as a destination within Calgary.

Objectives + Design Strategies

- Create elements that respond to potential changes in zoning to ensure the streetscape design is adaptable over time.
- Establish a commitment to high quality street-level design.
- Provide opportunities for public art, murals, and unique furniture elements.
- Ensure the design standards complement the existing and proposed developments within the Marda Loop area.
- Ensure streetscape elements will be identifiable and consistently applied.
- Incorporate elements that tie to the unique historical context of Marda Loop within the city.






Key Objectives...

Precedent Images

Implementation

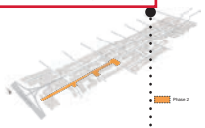
Establishes a phasing plan and strategy for the execution of the Master Plan.

5.2.2 Phase 2

Phase 2 is located between Crowchild Trail SW and 207 Street SW to 147 Avenue SW. This phase aims to complete the implementation of the Master Plan within the urban core, including the investment in 147 Avenue SW. This phase recognizes that the ongoing development on 147 Avenue SW is the first of several phases of development in the urban core. Phase 2 completion occurs between Crowchild Trail SW and 147 Avenue SW. This phase will build on the higher density and ongoing development within the urban core and integrating with the ongoing development of the Marda Loop program. It encompasses Phase 2 include the two parcels, which will complete the establishment of the urban and residential building. The design standards for this phase are currently in progress and the City is responsible for implementation and enforcement of the standards.

Design highlights in Phase 2:

- Continuation of the urban form.
- Delivery of parklets.
- Connections to Marda Loop community and associated retail plans.



5.2.3 Phase 3

Phase 3 includes 177 Avenue SW between 107 and 177 Street SW, 147 Avenue SW between 207 and 147 Street SW and the intersection with 147 Street SW to 147 Avenue SW. This phase anticipates the potential of urban core development in both density and development into the residential core. Coordination with other development and ongoing City of Calgary development within the urban core will support the delivery of Phase 3. This phase will build on the higher density and ongoing development within the urban core and integrating with the ongoing development of the Marda Loop program. It encompasses Phase 3 include the two parcels, which will complete the establishment of the urban and residential building. The design standards for this phase are currently in progress and the City is responsible for implementation and enforcement of the standards.

Design highlights in Phase 3:

- Secondary gateway feature expanding the collective feel of the Marda Loop Urban Form.
- Official intersection on 107 Street SW and 147 Avenue SW to improve navigation through a complex intersection.
- Support for increasing density.
- Leverage role of development community.



Design Highlights Per Phase

Phasing Diagram

"If you plan cities for cars and traffic, you get cars and traffic. If you plan for people and places, you get people and places."

Fred Kent Founder, Project for Public Spaces

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Introduction

Section 1

"A great place to make a living, and a great place to make a life."



1.1 Project Introduction + Background

The project boundaries of the Marda Loop Main Street are defined by 33rd and 34th Avenues SW from Crowchild Trail SW to 14th Street SW (see *Figure 1*). The study area currently services the neighborhoods of South Calgary, Marda Loop, Garrison Woods, Altadore, and Richmond/Knob Hill but is quickly becoming a regional destination. Since the redevelopment of Garrison Woods in 2004, the community has intensified with a growing number of infill housing units, duplexes, small condos (4-6 stories), and row housing. With most of the residents of the surrounding areas finding their daily needs within the commercial offerings of the project boundary; Marda Loop has begun to define itself as a trendy destination that offers a vibrant retail and commercial environment and a diversity of options to live and work in the community. These diverse housing and retail types have attracted new residents to the community, including young families, business professionals, and university students. In response to changing demographics and the efforts of the Business Improvement Area (BIA), new retail opportunities have been established on 33rd and 34th Avenues SW and plans for future development expansion continues within the area. This has made the area one of the most popular locations in Calgary and as a result, the Marda Loop area is seeing a resurgence of both residential and commercial development.

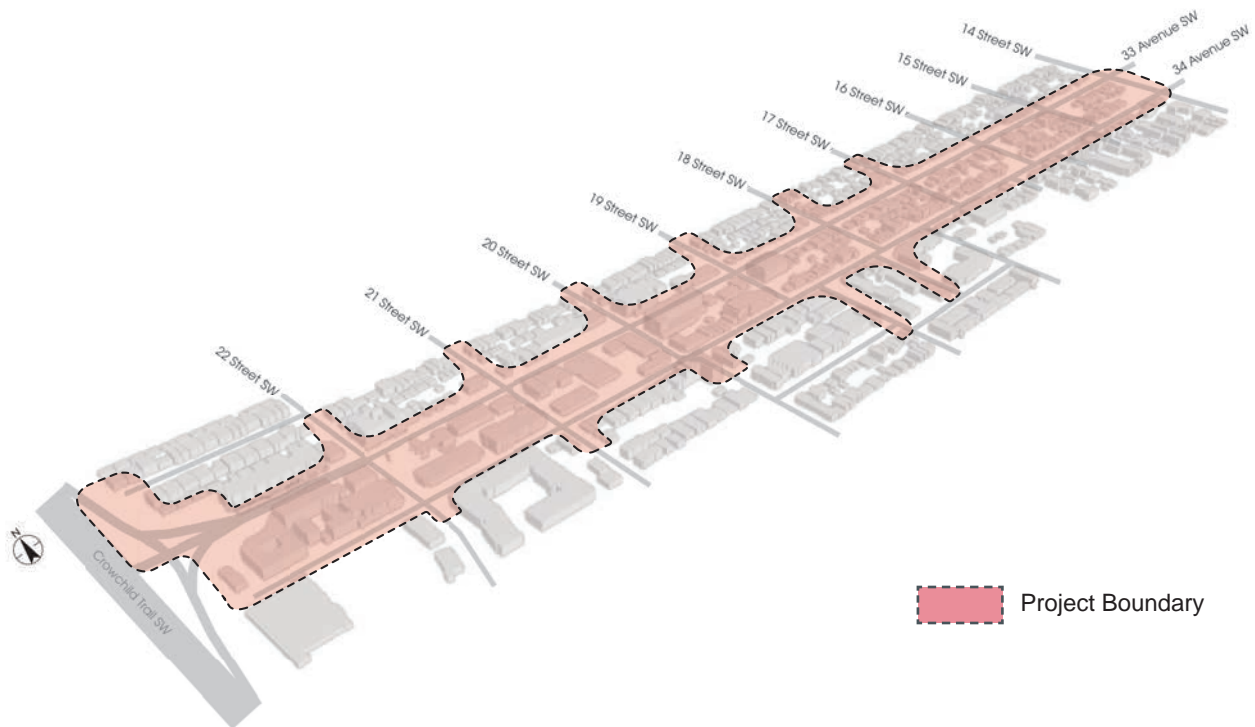


Figure 1 - Streetscape Master Plan Project Study Area

Did you know? The Marda Gras Street Festival has been held since 1984, making it Calgary's oldest street festival!

1.2 Related Plans + Policies

The redesign of the Marda Loop Main Street is shaped by various existing City of Calgary policies. These policies provide a technical framework that will be reviewed throughout the detailed design process. Policies provide a clear direction to support and action the vision and principles of the Master Plan. Other policies, like the Marda Loop and surrounding Area Redevelopment Plans (ARPs), help to provide clarity on the direction the City has put forth for the communities surrounding the study area.

Concurrent to the development of the Streetscape Master Plan, the SWBRT station construction, multiple development permits and the Established Areas Growth and Change Strategy are being undertaken. Effort was made to ensure that application coordination with these ongoing initiatives was included in the design process.

Key Design Direction provided by City Policies:

- **Improved pedestrian realm** to support higher density and visions defined by policy;
- Designs for a **safe, comfortable, + consistent** space for all roadway users; and
- **Adaptive design** which safeguards for future development.

The key documents considered included, but were not limited to:

- Calgary Municipal Development Plan
- Calgary Transportation Plan
- Marda Loop ARP
- Complete Streets Policy & Guidelines
- Public Art Master Plan
- South Calgary/Altadore ARP
- Richmond/Knob Hill ARP
- City of Calgary Traffic Calming Policy
- Pathway and Bikeway Plan

Technical policies and documents that have been reviewed specifically to guide direction include:

- Dark Skies Policy
- Pedestrian Strategy
- Cycling Strategy
- Pathway and Bikeway Map
- Development transportation impact assessments submitted in 2018
- Design Guidelines for Subdivision Servicing
- Streetlighting Guide
- Urban Forestry

1.3 Master Planning and Design Process

The Master Plan sets the framework and a high level of design intervention for the Marda Loop Main Street. The purpose of this report is to provide the City of Calgary and the Marda Loop communities with recommendations and direction for main street improvements within the study area. The master planning process is broken down into three stages: Discover, Explore, and Reveal. Throughout these phases, different information sources are used to continuously refine the design outcomes, as illustrated in *Figure 2*.

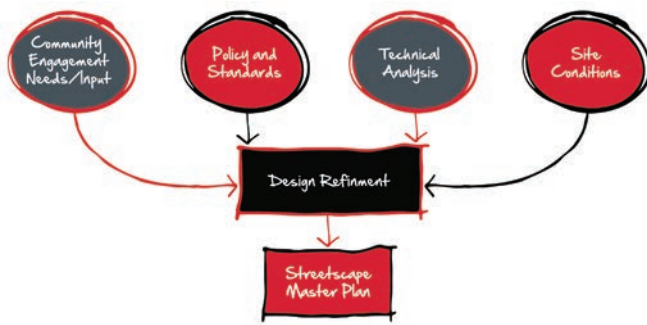


Figure 2 - Inputs to the Streetscape Master Plan Design

1.3.1 Phase 1 – Discover

The Discover phase of the project began publicly with the first public engagement session in February 2018. The project developed the vision and direction for the Marda Loop design from publicly identified feedback, concerns, and opportunities. When this was balanced with City policy and a technical review of the needs of the community, the direction for the design was established. Initial public and stakeholder consultation helped to inform an understanding of the key areas the

community members saw as problematic, a vision for the future of the Marda Loop area, and a clear direction regarding the prioritization of elements within the main street. The information from the initial public engagement was combined with City policy and a review of the existing site conditions to help guide the vision, opportunities, and priorities within the Master Plan.

1.3.2 Phase 2 – Explore



The Explore phase of the project examined possible solutions to answer the design challenges and deliver on the vision for the Marda Loop Main Street. Additional background studies were undertaken, along with internal and external stakeholder consultation, including multiple on-site storefront public engagement events. This provided further opportunities to explore design ideas and refine the design direction within the Marda Loop Main Street. It also gave the project team a chance to review the proposed cross-section design with the public and ensure the design responded to the initial public feedback.

1.3.3 Phase 3 – Reveal

The Reveal phase of the project was the final chance to review the Streetscape Master Plan and weigh the design decisions against the priorities outlined in the initial phases of the project. The Master Plan design presents a clear picture for the future of the Marda Loop Main Street. The design illustrates a vibrant streetscape with well-designed public spaces that prioritize the pedestrian experience, increase safety, and aim to connect the Marda Loop area with a singular vision for the future.

What's Next? The 33rd and 34th Avenues SW Streetscape Master Plan is final, community endorsed, and City approved. This document represents the design concepts that will be carried forward into detailed design and construction which may require technical refinement, and establishment of alternatives within the direction set by the Master Plan.

“Marda Loop is a melting pot of students, young professionals, young families and people who have lived in the community their whole lives. It is eclectic in nature because of the diverse range of people who live there. It is young and old, new buildings and old.”

Comment from Community Engagement



Community Engagement 3 - Calgary, AB

1.4 Public Engagement Process

All phases of the master planning and design process maximized the opportunities for community input into the principles that eventually became the details of the design. Whenever the design was asked to assess a trade-off or measure the impact of design decisions, the project always turned back to the principles that were shaped through the community engagement process. Underlining formal engagement efforts several informal one-on-one stakeholder meetings were held between Fall 2017 and Spring 2018 with the BIA, community association and members of the steering committee. Formal engagement included the Discover phase which had two formal components, an open house (Winter 2018) and storefront (Spring 2018); in addition to, the Explore and Reveal phases which incorporated information sessions in Fall 2018. To best coordinate with the land use efforts outlined in Section 2.7 - Land Use of the Main Streets program, these public events were staged with both land use and Main Streets information present.

Community Engagement 1 - Open House

February 26, 2018 | +/- 350 Attendees

The objective of engagement 1 was to provide an opportunity to understand the views and interests of residents, businesses, pedestrians, commuters, and shoppers alike in relation to what their community may look like in the future. The event focused on gathering feedback on the design elements and principles to be considered for 33rd and 34th Avenues SW.

Engagement 1 was laid out in an open house format at the Marda Loop Community Centre where

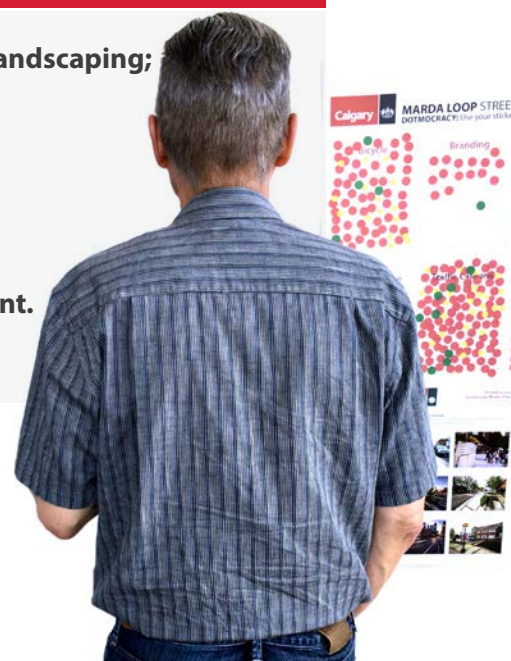
attendees, and those participating on-line, provided feedback on streetscape elements, identified issue areas, contributed to the development of a vision statement, and suggested opportunities within the area. Attendees were asked the question *“What makes Marda Loop Marda Loop?”* Specifically, they were also asked to rank elements that would be components in the design in order of importance. This engagement was supported by an on-line platform, presenting the same information for those that could not attend in-person. The open house resulted in feedback that informed the following community priority hierarchy (in order of preference).

Feedback from the open house also led to the development of priority areas and the design vision statement for the Master Plan as detailed in Section 3.0 - Design Concepts.

The design vision statement, community priorities, and priority areas were used throughout the remainder of the master planning process to inform design choices and the final Master Plan. These outcomes are presented in presented in Section 3.1 Design Vision.

Community Priority Hierarchy:

- 1. Pedestrians + Landscaping;**
- 2. Parking;**
- 3. Transit + Traffic;**
- 4. Bicycles; and**
- 5. Goods Movement.**



Community Engagement 2 - Storefront

May 8,10,12 - 2018 | +/- 300 Attendees

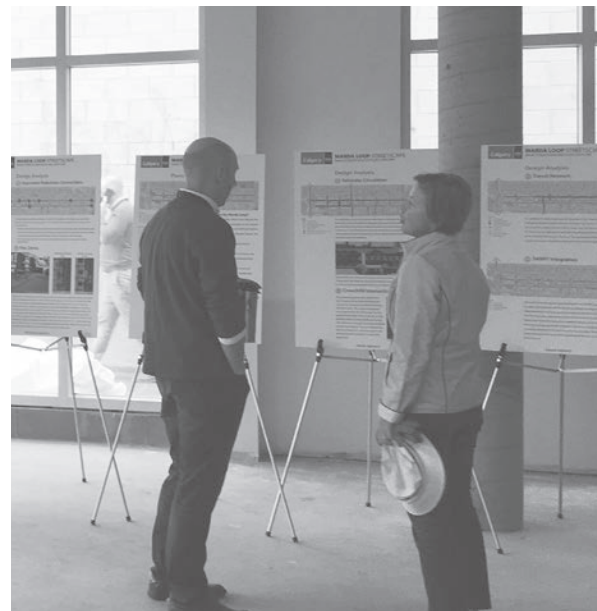
The objective of engagement 2 was to test and refine specific elements of the design as they were taking shape to ensure that they still aligned with the vision statement, community priorities, and priority areas. The goal was to engage a variety of stakeholders, ask specific questions regarding design interventions, cross-section dimensions and the prioritization of streetscape elements while facilitating freeform discussions, and obtain feedback to inform further work.

Engagement 2 was laid out in a storefront format at a vacant retail space on 33rd Avenue SW within the Marda Loop BIA area over three days in Spring, 2018. Attendees were able to drop by while moving through the community and provide feedback. Feedback was gathered through a survey collected on-line and in-person. The same material and survey were available on-line to those who could not attend in person.

The results of engagement 2 informed the design details, providing information on areas to expand and components that were less of a priority to the community. The engagement also aimed to confirm the corridor community hierarchy developed in engagement 1 in order to ensure the design trade offs were understood and accepted by the community.

The event resulted in feedback on:

1. Key times of parking difficulty;
2. Preferred flex zone options/ implementation methods;
3. Sidewalk width preference;
4. Acceptable trade-offs for improved landscaping;
5. Open space utilization ideas;
6. General comments on design direction; and
7. Design relevance to the feedback from engagement 1.



Community Engagement 3 - Calgary, AB

Community Engagement 3 - Storefront

September 22,25, 2018 | +/- 150 Attendees

The objective of engagement 3 was to reveal the concept design of the Master Plan to the public and obtain their impressions.

Engagement 3 was an information session held in a vacant retail space along 34th Avenue SW in the fall of 2018. A series of presentation boards described the work that had been completed to date, the vision and priorities of the Master Plan, and each of the features of the plan (pedestrian circulation, transit connection, etc.). A large print of the integrated Master Plan indicating parklets, landscaping, and other key elements was presented for attendees to view and discuss. Attendees were also asked what their impressions were and were encouraged to write their answers on sticky notes and fix them to the wall. The presentation materials were also provided on-line with an open comment box where respondents could input their impressions.

The event resulted in feedback and questions on topics such as:

- **Neighbourhood feel;**
- **Density;**
- **Surrounding land use;**
- **Home value;**
- **Bicycle infrastructure; and**
- **Parklets.**

Overall, attendees indicated that the design responded to the needs of residents and visitors and supported the vision for the Marda Loop area.

The results of Engagement 3 were used to confirm the concept design of the Master Plan.

Key Engagement Results / Findings:

- **Support for traffic calming features that increase pedestrian safety;**
- **General support for urban parklets;**
- **General support for closed street plaza concept;**
- **Desire for increased infrastructure to support safe cycling; and**
- **General support for the master plan concept.**



Community Engagement 3 - Calgary, AB

1.5 Intent, Goals and Objectives + Strategies

The intent of the Master Plan is to lay the foundation for phased improvements to the streetscape in a neighbourhood context. The improvements highlighted in the following sections are aimed to create a streetscape that includes well-designed, quality public realm elements and public space that prioritize the pedestrian experience and will help to support ongoing redevelopment; creating a thriving economic and retail environment in the Marda Loop area.

Key themes, goals, and objectives were identified based on the analysis of the existing conditions; technical input; and information gathered during public engagement, on-line surveys, and key stakeholder meetings. Key themes were identified, and goals and objectives created to help guide the Master Plan. These goals informed the creation of the design elements, streetscape cross-section, and the neighbourhood design standards. The following goals are used as the framework to shape the Master Plan:

Goal 1: Prioritize the pedestrian.

Objectives + Design Strategies

- Ensure the pedestrian experience is the priority when assessing any design conflicts.
- Identify opportunities within the right-of-way to reallocate space to support increased safety, placemaking, and pedestrian comfort.
- Create a corridor-wide streetscape design that is safe, well-connected, well-lit, and comfortable for walking.
- Provide comfortable walking widths with a clear zone for the length of the corridor.
- Design for universal accessibility on all streets and plaza areas.
- Improve intersection treatment with the use of curb bump-outs to improve safety and shorten the pedestrian conflict zones.



Colourful Accent Lighting - Calgary, AB



Pedestrian Focused Streetscape - Toronto, ON

Goal 2: Enhance landscaping to support pedestrian comfort.

Objectives + Design Strategies

- Provide options for landscaping that support the vibrancy of the streetscape.
- Select tree species that align with the City of Calgary approved species.
- Provide design alternatives for tree planting in areas with utility conflicts and/or lack of soil volume.
- Recommend design approaches that simplify maintenance.
- Considerations for Stormwater Retention

Goal 3: Develop unique streetscape elements that clearly announce the Marda Loop Main Street as a destination within Calgary.

Objectives + Design Strategies

- Create spaces that respond to potential changes to zoning to ensure the streetscape design is adaptable over time.
- Establish a commitment to high quality implementable design.
- Provide for opportunities for icon features, and unifying furniture elements.
- Ensure the design standards complement the existing and proposed developments within the Marda Loop area.
- Ensure streetscape elements will be maintainable, safe, and easily procured.
- Incorporate design elements that tie to the unique historical context of Marda Loop.



Unique Streetscape - St. Paul, MN



Mural - Edmonton, AB

Goal 4: Provide new opportunities for community gathering space.

Objectives + Design Strategies

- Highlight areas within the Master Plan that are currently underutilized as opportunities for community space.
- Identify key nodes within the Marda Loop area that are already being embraced by the community and propose design concepts to help improve the function of the space.
- Create attractive, comfortable, and inviting spaces that promote a multitude of uses and promotes gathering.



Community Gathering - New York, NY

Goal 5: Improve mobility by providing safe circulation of all modes.

Objectives + Design Strategies

- Provide safe places to walk, ride, cycle, and gather.
- Incorporate bicycle infrastructure throughout the main street.
- Improve intersection conflict areas with the use of bump-outs to improve sightlines and reduce exposure for users.
- Integration with Calgary Transit.



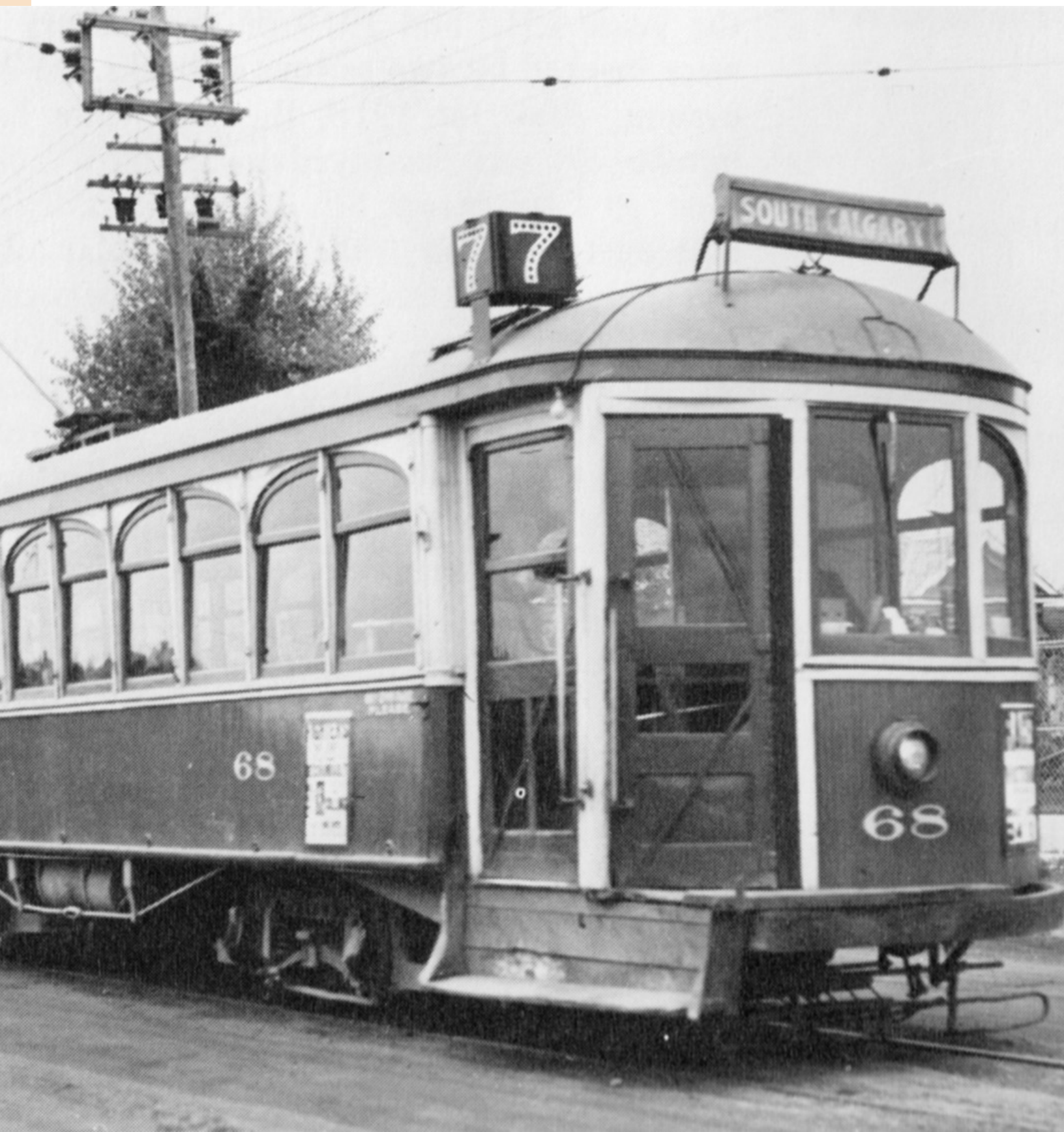
Improved All Modes Mobility



Project Context

Section 2

"In 1907, the City of Calgary annexed South Calgary, including what is today known as Marda Loop."



2.1 History of the Area

In 1907, the City of Calgary annexed South Calgary, including the area that is today known as Marda Loop. The name Marda Loop is drawn from two major historical landmarks along the main street: the streetcar loop and the Marda Theatre.

The Street Car

South Calgary was largely undeveloped until the 1950s, aside from its streetcar line. The #7 South Calgary streetcar ran from downtown along 14th Street SW to 34th Avenue SW before looping around at 24th Street SW (what is now Crowchild Trail SW). The streetcar turnaround loop operated until the 1950s and put the “Loop” in Marda Loop.

The Marda Theatre

Residents Marc and Mada Jenkins are responsible for putting the “Marda” in Marda Loop. In 1953, the couple opened the Marda Theatre (later the Odeon Theatre) at 33rd Avenue SW and 20th Street SW (the word “Marda” comes from combining their first names). The theatre had 490 seats and showed science-fiction, comedy, cowboy, and adventure films. During an engagement session, a Calgary resident recalled in the early 1960s bringing a quarter to the Saturday double movie; 20 cents to get in and a nickel for candy. The theater operated for 35 years and was later demolished in 1990.

2.2 Existing Conditions

Over the last decade, rapid growth within the Marda Loop area has taken place; both residential and commercial buildings have been added to the community, density has steadily increased, and what was once a quiet community has been transformed into a mixed-use hub of activity. With this rapid change, the identity of Marda Loop has been changing; the historic Marda streetcar line has been replaced with modern architecture and increased traffic. This has left the community with a patchwork of public realm elements that are inconsistent and missing a cohesive identity. The inconsistency within the pedestrian realm (narrow sidewalk widths, poor pedestrian connections, misaligned intersections) has led to an unfortunate pedestrian environment; one that is dominated by the vehicle and does not foster the connections needed to create a successful main street.

The Master Plan aims to create a consistent theme that ties the Marda Loop Main Street together and establishes a cohesive vision for the community that can expand with future development. To that end, a variety of existing conditions, context, connections, and area uses were reviewed and analyzed.

Neighborhood Context

The rapid growth within the Marda Loop area is exemplified by the population growth of Altadore, Richmond, and South Calgary within the past ten years (2007-2017); they have grown by 27%, 22%, and 15% respectively. In addition, units within the

Marda Loop ARP boundary have grown by about 11% in the same period. This does not include new residential developments either under construction or development-permit approved presented in Section 2.8 - Development Activity.

What this shows is that the population serviced by the study area has expanded. This increase in individual users requires that the amenities and capacity of the Marda Loop urban area be expanded to meet this increased need.

Open Space

In its current state, the Marda Loop area is lacking quality public open space. Within the BIA (between Crowchild Trail SW and 19th Street SW) there are no community parks, public plazas, or open spaces for gathering and community events. Outside the BIA, four public open spaces are in the proximity of the heart of the Marda Loop area (20th Street SW & 33rd Avenue SW); however, all four open spaces lack the proper wayfinding and safe pedestrian travel routes to make them well used focal points within the community. They are also all located outside of a comfortable five minute walk radius from the community core making most of the access vehicle based. The five main public open spaces are:

- South Calgary Park/Marda Loop Community Association (850m)
- Kiwanis Park (1.0km)
- Flanders Park (1.5km)
- River Park (1.5km)
- C-Space (1.0km)



River Park - Calgary, AB

Connections

Marda Loop serves as a central commercial node to the surrounding communities, including those across Crowchild Trail SW. Traveling to the Marda Loop BIA is adequate by transit, car, and bicycle although depending on the time of day and seasonality of the trip, transit and bicycle connectivity can become troublesome due to a lack of winter design interventions for snow clearing, shelter, and lighting.

Pedestrian connectivity stretches into the surrounding communities through the defined grid networks and dispersed destinations (e.g. the Military Museum, River Park, and South Park).



C-Space Farmers Market - Calgary, AB.

Existing Neighborhood Amenities + Events

The Marda Loop communities are passionate, engaged, and regularly host engaging community events. The major events currently scheduled include:

- Light Up the Loop Christmas Festival;
- Beakerhead In Marda Loop;
- Marda Gras Street Festival;
- Boogie’s Burgers Alley Patio Party;
- #MARDALOVEDAY; and
- Farmers Market (weekly).

Other neighbourhood amenities include:

- C-Space;
- The Military Museum;
- Giuffre Family Library;
- Richmond Green Golf Course;
- Flames Community Arena;
- Flanders Park; and
- Others previously mentioned.



2.3 Circulation Systems

The Marda Loop communities exemplify a shift from a car-centric community to one with mobility options. Users have the option to walk, cycle, ride transit, or drive within the community. The map presented in *Appendix A: Technical Information* depicts a summary of the circulation system in the study area as it integrates with the community around it and places within.

The major circulation system highlights include:

- Marda Loop is directly linked to the City of Calgary Pathway and Bikeway network with a north–south bike lane on 20th Street SW and a signed cycle lane on 34th Avenue SW.
- The Route 7 Bus runs to Marda Loop from South Calgary and the City Centre multiple times a day, averaging a bus every 15 minutes during rush hour.
- Future SWBRT Station located on Crowchild Trail SW at 33rd Avenue SW further exemplifies the City's commitment to ensuring that Marda Loop has a diverse network of mobility options.

Transportation Corridors

The Marda Loop area within the context of Calgary has long been considered an ideal location due to its proximity to downtown and its access to the major transportation corridors of Crowchild and Glenmore Trails SW, 17th Avenue SW, and 14th Street SW. The direct access to these corridors is a feature that serves both residents and visitors. The crossing of Crowchild Trail SW does serve as a significant barrier for walking and cyclists as the pedestrian movements are not well marked and the high traffic speeds create an uncomfortable pedestrian environment.



Existing Marda Loop Gateway - Calgary, AB

Gateways

In its current state, the Marda Loop Main Street has older gateway and icon features that speak to the history of the street car in the area. The existing gateway features are starting to show their age and do not integrate with the design aesthetic of many of the new developments within the Marda Loop area. The gateway features are all currently located within the existing Marda Loop BIA and do not link the neighbourhood together. Notably missing are gateway features to mark the entrance to the Marda Loop area at 33rd and 34th Avenues SW and 14th Street SW.

Street Hierarchy (vehicle movement)

Vehicle movement within the Marda Loop area has many origins with most of the volume directed to 33rd Avenue SW. 34th Avenue SW has more localized traffic and takes up the overflow

traffic from 33rd Avenue SW during rush hour. The major north–south movement is directed to 20th Street SW with the traffic on the surrounding blocks being mostly local in nature. Balancing the design of the improved public realm between the interests of existing businesses and residential concerns and the changing role of the personal vehicle led to a recommendation which lessens the impact on parking and major travel patterns. Areas of congestion or friction are normal in busy urban and mixed-use environments, and a balance of these relationships must be maintained for an effective main street. The intersection geometry currently lacks clear treatments, if improved this would make the relationship between vehicles and pedestrians easier and safer. Work in this area was supported by a parking study to ensure that this Master Plan does not negatively impact the parking supply within the communities, see Section 2.4 - Background Studies.

Transit

Existing and future transit routes are critical to supporting the growth of the community without increasing personal vehicle dependency. Calgary Transit already serves Marda Loop and the surrounding communities with frequent and reliable bus service and has plans to provide Bus Rapid Transit (BRT) service linking the community to the downtown core. Currently there is a higher bus stop frequency in the study area than would be recommended by industry best practices. To increase the operational effectiveness of these routes, stop locations have been studied and outlined in Section 2.4 - Background Studies with the recommendations provided in *Appendix A: Technical information*.

Goods Movement

Supporting retail requires businesses to access their deliveries and pickups in a reliable manner using lanes and alleys. The Master Plan does not identify or designate specific on-street loading spots, as these are business dependent and this recommendation would be made in accordance with City policy at detailed design.

Cyclist Network

The City of Calgary and residents of the Marda Loop area have been demonstrating an increasing need for infrastructure to support cycling. Notably the area is currently lacking ubiquitous bike parking to support access to and around the residents and businesses. The infrastructure which includes regional pathways and signed bike routes was most recently improved by the addition of bike lanes on 20th Street SW.

The Master Plan reviewed several options for cycling infrastructure to support the east-west connection through the community. A summary of this background study is provided in Section 2.4 - Background Studies.



2.4 Background Studies (Transit, Parking, Cycling)

A series of technical studies were performed to ensure that the Master Plan responds to its surrounding context. Specific studies were undertaken to better understand parking, the transit network, SWBRT integration, and the cycling network and infrastructure. A parklet pilot study was also performed outside the scope of the Master Plan, it is however included in this section as the results were highly informative to the final design recommendations.

Parking Study

Early and often during the engagement for the Master Plan, the communities and stakeholders identified parking as an area of key concern. This concern was motivated by the residential and business need to provide parking, combined with the desire not to displace parking into the surrounding neighbourhoods. This was especially the case when examining the implications of changes to the transportation system. In order to better understand the impacts of various design treatments involved, the project undertook an extensive parking study to better understand how parking can impact the redesign.

Within the communities, there was a clear perception that parking was under supplied, especially in the western end near Crowchild Trail SW. To accurately measure this perception, the parking study timing was selected by residents during engagement 2 by asking participants "when was parking the worst?". As a result of these responses, the parking study was undertaken in two six-hour blocks, a typical summer Saturday morning and a typical summer Wednesday afternoon/early evening. Additionally, the parking study area was expanded beyond the scope of the Master Plan study area to ensure that parking

implications were understood within the context of the surrounding residential communities.

The study results revealed that while a limited number of blocks were over-utilized, adjacent blocks within a reasonable walking distance (less than 200m) had available capacity. *Figure 3* highlights those over utilized areas, a map identifying all over utilized blocks is included in *Appendix A: Technical Information*. The results indicated that there are no areas of concern within the parking study area. It was noted during this parking study that available public parking provided on private land had not been included, which has been qualitatively described as underutilized. This could be addressed through improvements to the wayfinding for these parking lots.

While the results of the parking study reveal that parking is not an issue, it will be important for this community to monitor the parking conditions to ensure that appropriate considerations in the allotment of space are made to continue balancing all modes. The perception of limited parking still exists and these parking study results as well as feedback from businesses and community representatives, were employed to recommend that the final design minimize any loss of parking and utilize parking delineation to improve the use of parking.

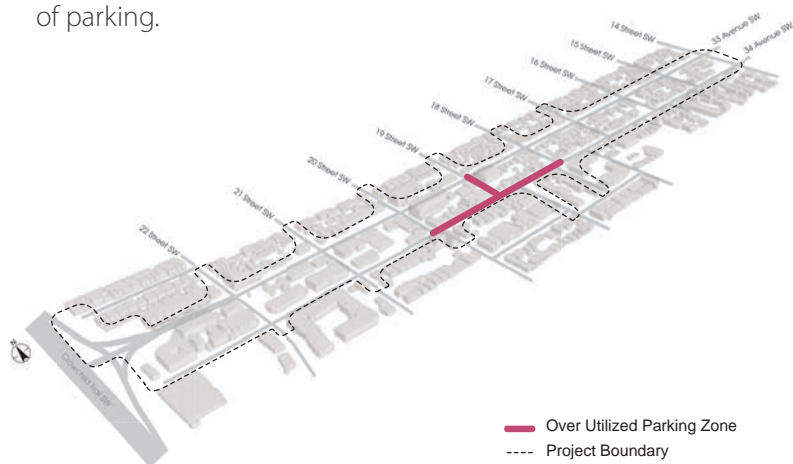


Figure 3 - Parking Study Location

Parklet Pilot

A parklet (urban plaza) is an extension of the public realm creating more space and amenities for people using the street. The use of parklets within the Master Plan was piloted as a separate but concurrent project and was informative to the final design recommendations. Two parking spaces were used to provide additional public space at the intersection of 34th Avenue SW and 22nd Street SW through the summer of 2018, see *Figure 4* for location. This location was selected based on community activity, supporting land uses and feedback from businesses. This pilot included counts of users at regular frequencies and facility component improvements provided several key recommendations:

- Ensure that the appropriate agreements are in place for operations and maintenance, specifically regular cleaning/tidiness;
- Install signage to make it clear it is a public space, not one provided for the sole use of a private business;
- Incorporate shade and seating that is context sensitive to the businesses/communities that it is serving; and
- Engage the businesses to ensure they are supportive of location.

These lessons have been incorporated into the Master Plan design through the recommended locations and component designs.

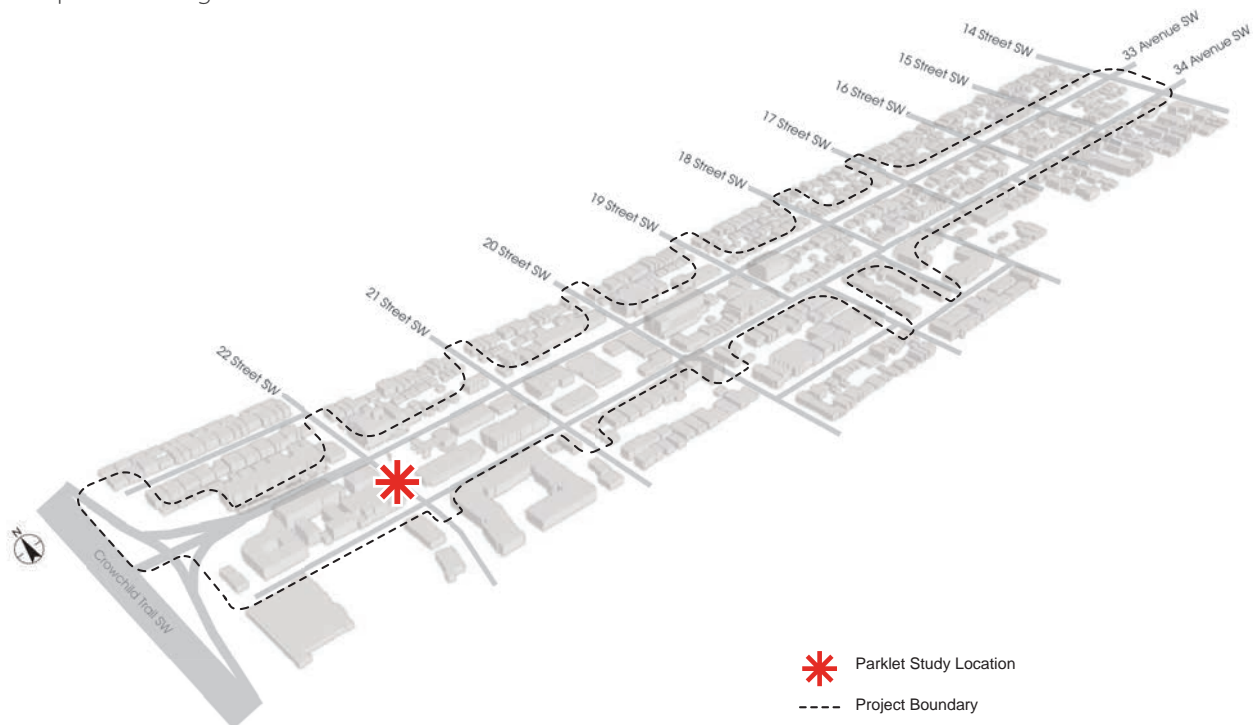


Figure 4 - Parklet Study Location

Transit Network

During technical review of the Marda Loop Main Street, the bus stop locations were identified as areas that could be optimized to improve the experience of users and operation of transit. Currently the frequency of bus stops slows travel time and increases delays generated by buses entering and exiting traffic. Additionally, the bus stop design requires buses to pull out and merge with traffic, which, by policy, is only required at timing points (bus stops with a specific time the bus is scheduled to stop at).

Currently bus stops are located every 200m, both westbound and eastbound. In order to optimize this spacing, rider boarding and alighting (ons and offs) were examined to determine the most frequented stop locations. Through this analysis, combined with a technical review for potential catchment impacts, a more appropriate spacing of 400m has been recommended (a map with these considerations has been included in *Appendix A: Technical Information*).

The Master Plan includes three recommendations as a result of this study, presented in *Figure 5*:

1. A design for bus stops which does not cause delays when merging with traffic;
2. Relocation of stops where a bus may need to sit idle for a time to get stops back on the prescribed timing schedule. The relocation will be in areas of key density and will no longer interfere with the cycling facilities on 20th Street SW, or the turning movement onto 33rd Avenue SW; and
3. A more appropriate stop spacing of 400m, without significant impact to the ridership catchment.



Figure 5 - Transit Network Map

Southwest Bus Rapid Transit Integration

The Southwest Bus Rapid Transit (SWBRT) station in the Marda Loop area is recognized as a critical opportunity to support transit-oriented development and a less car-centric urban form. The location of the stop to the far west of the study area is less than ideal for transit users accessing the facility but was required for transit operation. It was important that the Master Plan address this and make the integration with the SWBRT seamless while enhancing connections.

During the development of the Master Plan, the SWBRT has been preparing for construction; therefore, effort was spent to ensure the design recommended by the Master Plan be incorporated into the existing SWBRT plan to support constructibility. The scope of construction for the SWBRT stop in the Marda Loop area is limited to the platform and supportive roadworks. Working closely with the project team, the concept design includes additional pathway and lighting accesses, a plaza with improved waiting area for transit users, and improved pedestrian and cycling connections between the community and the stop. These are expanded on in Section 4.2 - Design Standards.

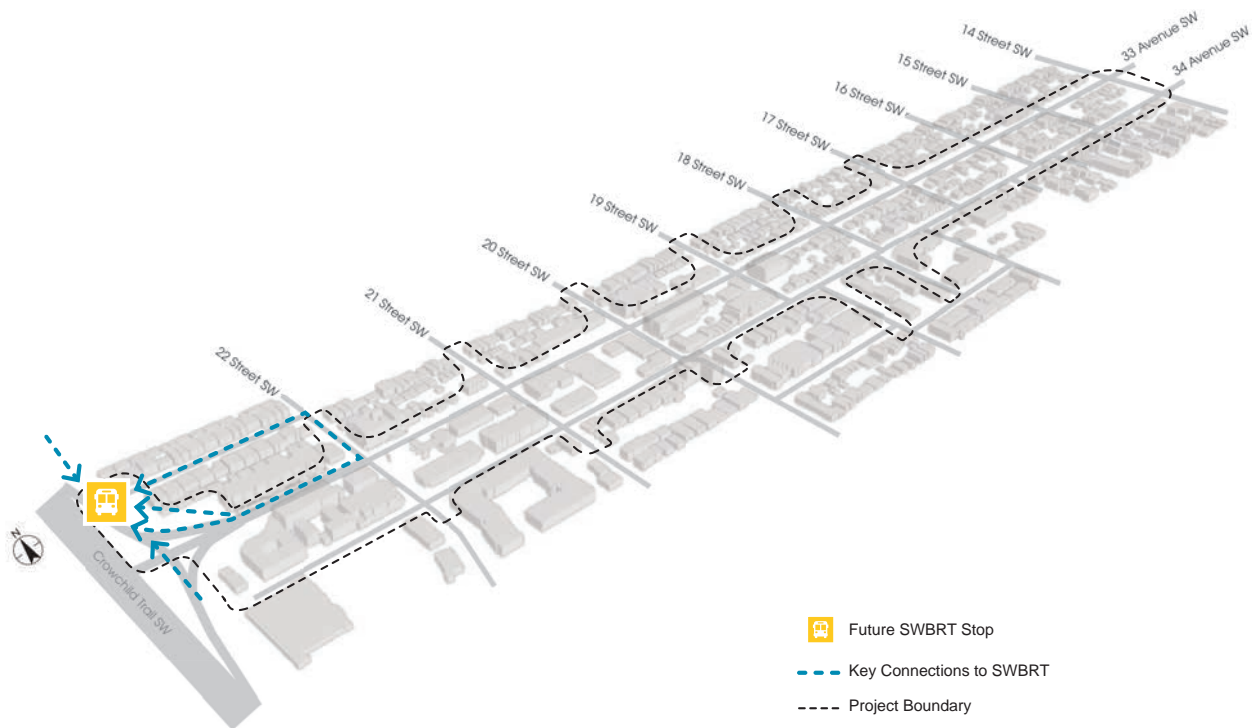


Figure 6 - SWBRT Integration

Cycling Network + Infrastructure

The location and design of cycling infrastructure was identified as a priority for the public and internal stakeholders, therefore subsequent study was undertaken. The existing Pathway Bikeway Plan provides direction that cycling infrastructure is most appropriate on 34th Avenue SW. The Master Plan endeavored to confirm this by undertaking a cycling study to identify the best of the potential routes (32nd, 33rd, or 34th Avenue SW). Further information is presented in *Appendix A: Technical Information*.

To confirm the best route for a cycling facility, the study examined possible bicycle facility treatments through the lenses of use, importance, and cost/implications. Constraints such as available right-of-way space, existing traffic volumes, and existing motor vehicle speeds informed what bicycle facility treatment would be appropriate to achieve an *All Ages and Abilities* bicycle facility. The analysis confirmed that 33rd Avenue SW was not suitable for a cycling facility without significant impact on the vehicle and pedestrian network, and 32nd Avenue SW does not serve the regional network due to the lack of east - west connectivity. The avenue best suited for a bicycle facility was determined to be 34th Avenue SW, despite possible impacts to travel lanes or parking, depending on the specific bicycle facility that is chosen. It is recommended that the communities will need to be engaged to gather feedback and inform which of the potential options would best suit this community at the time of implementation.

To accommodate the appropriate bicycle infrastructure in the study area, the Master Plan recommends the following design considerations:

- Design the south side of 34th Avenue SW to minimize re-construction of new infrastructure and to accommodate future bicycle infrastructure;
- Study 34th Avenue SW automobile travel and bike facilities in more detail during detailed design to determine appropriate bicycle facility treatment; and
- Develop interim solutions and engagement strategy for future bicycle infrastructure in the study area.



Figure 7 - Cycling Network

2.5 Utility Summary

To ensure the design concepts proposed within the Master Plan are technically sound, a detailed study of the existing utilities was undertaken to identify the existing deep utilities (sanitary, storm, water), the ATCO gas line, shallow utilities and the resulting available, conflict-free area. Conducting a study of the utilities during the master planning process ensures the design concepts proposed are implementable. Refer to *Appendix A: Technical Information* for a figure identifying utility conflicts and presently available landscaping opportunities.

In many cases throughout the Master Plan, the ATCO gas line on 33rd Avenue SW and the overhead power lines on 34th Avenue SW are in direct conflict with the streetscape improvements. During detailed design, further discussion with the City and the utility owners should be considered to explore setback relaxations or the relocation of lines in direct conflict with the proposed design interventions.

2.6 Lost Opportunities

Throughout the decade of rapid growth in the Marda Loop area, public space has become fragmented and community identity has been lost. This fragmentation of the public realm has created areas of friction between the built form and public realm. The missing links integrating and activating public spaces within the corridor have been reviewed as part of this work.

The Marda Loop Village archway located on the corner of 33rd Avenue SW and Crowchild Tr SW once marked a pedestrian connection to a vibrant

commercial block but now sits unused and poorly lit, creating a safety concern for the area. The retaining wall and sunken walkway at the Marda Loop Station development located on 33rd Avenue SW and 21st Street SW creates a fragmented and unsafe pedestrian divide between the public realm and commercial development. The park space adjacent to 33rd Avenue SW at Crowchild Trail SW, once flanked by single family housing, is now adjacent to a 4-storey multi-family building that if left undeveloped, will continue to pose a safety concern to the building residents and communities. These are a few examples, along with the inconsistent streetscape, poor sidewalk conditions, and lack of signage, that were identified by the communities as areas of friction within the Marda Loop area.

These areas of friction identified throughout the Master Plan are also the areas with the greatest opportunity for improvement. Simple design interventions may be all that is missing from turning a forgotten space into something the community is proud of. The remaining chapters of the Master Plan illustrate how these areas of friction within the Marda Loop area could be improved upon.

2.7 Land Use

Main Streets planning focuses on achieving goals and targets contained in the Municipal Development Plan by working with local stakeholders to create a new regulatory framework of updated local area policy and new land use districts (zoning). A modernized land use pattern will provide a broader range of housing choices and commercial services and, along with a high-quality transit and transportation network, allow people to meet more of their daily needs within their own neighbourhood. A more flexible and resilient built form and a broader range of allowed uses provides for adaptability of buildings and communities over the long term.

The map presented in *Figure 8* is from the engagement 3 exercise for a new land use framework in the Marda Loop area. This map was modified based on comments from previous events, is still a work in progress, and will be updated based on ongoing input from stakeholders. This map is still in draft form and will be amended prior to Council review and approval.

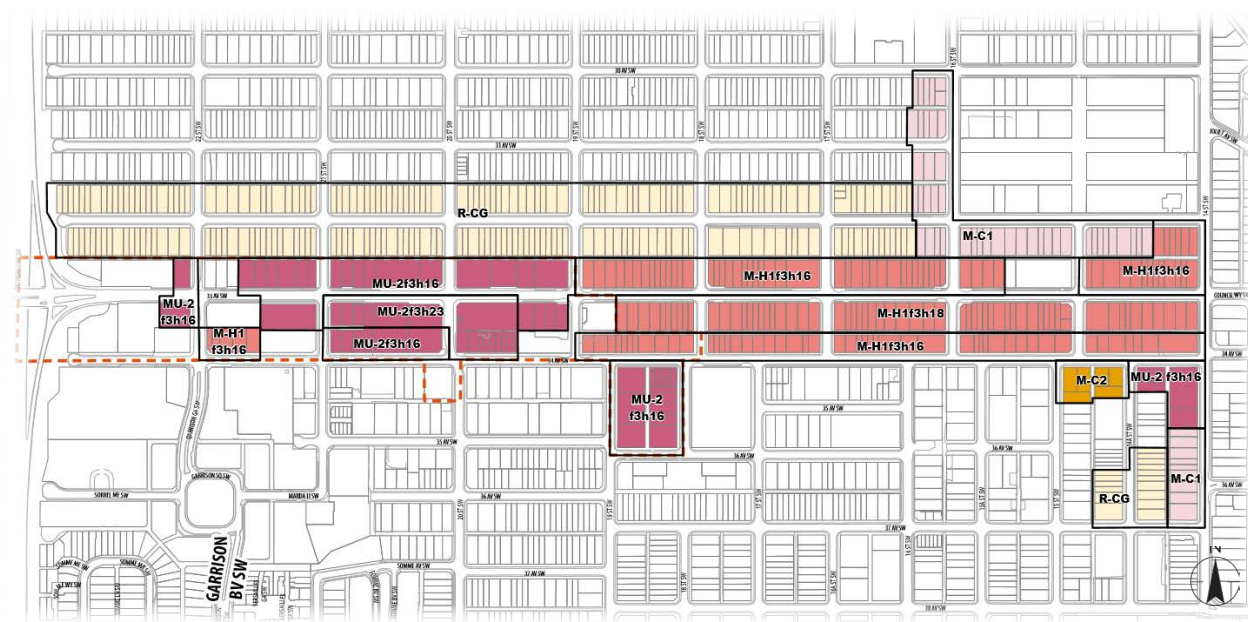


Figure 8 - Marda Loop Land Use Districts (DRAFT)

Legend

- R-CG - up to 3 stories
- M-C2 - 4-6 stories
- MU-2 - 4-6 Stores
- M-C1 - 4-6 stories
- M-H1 - 4-6 stories
- Marda Loop ARP Boundary

2.8 Development Activity

The Marda Loop area saw significant growth over the ten years from 2007 to 2017 with the communities of Altadore, Richmond, and South Calgary seeing population growth of 27%, 22% and 15% respectively; while the number of units within the Marda Loop ARP boundary increased approximately 11% in the same period and this does not include a number of new residential developments currently under construction. This significant number of new developments changed the way the main street looks and functions and there are no signs of the development slowing down as the desire to live in the area continues to grow.

The success of the Master Plan relies in large part on the seamless integration between the built form and the public realm. *Figure 9* illustrates the significant development projects completed, currently under construction, or Development Permit (DP) approved and shows how the area is moving towards increased density. The Master Plan can set the design framework within the area, acting as a reference document for future development within the neighbourhood. Refer to Section 4.3 - Future Development Guidelines for further information on the design concepts for future development.

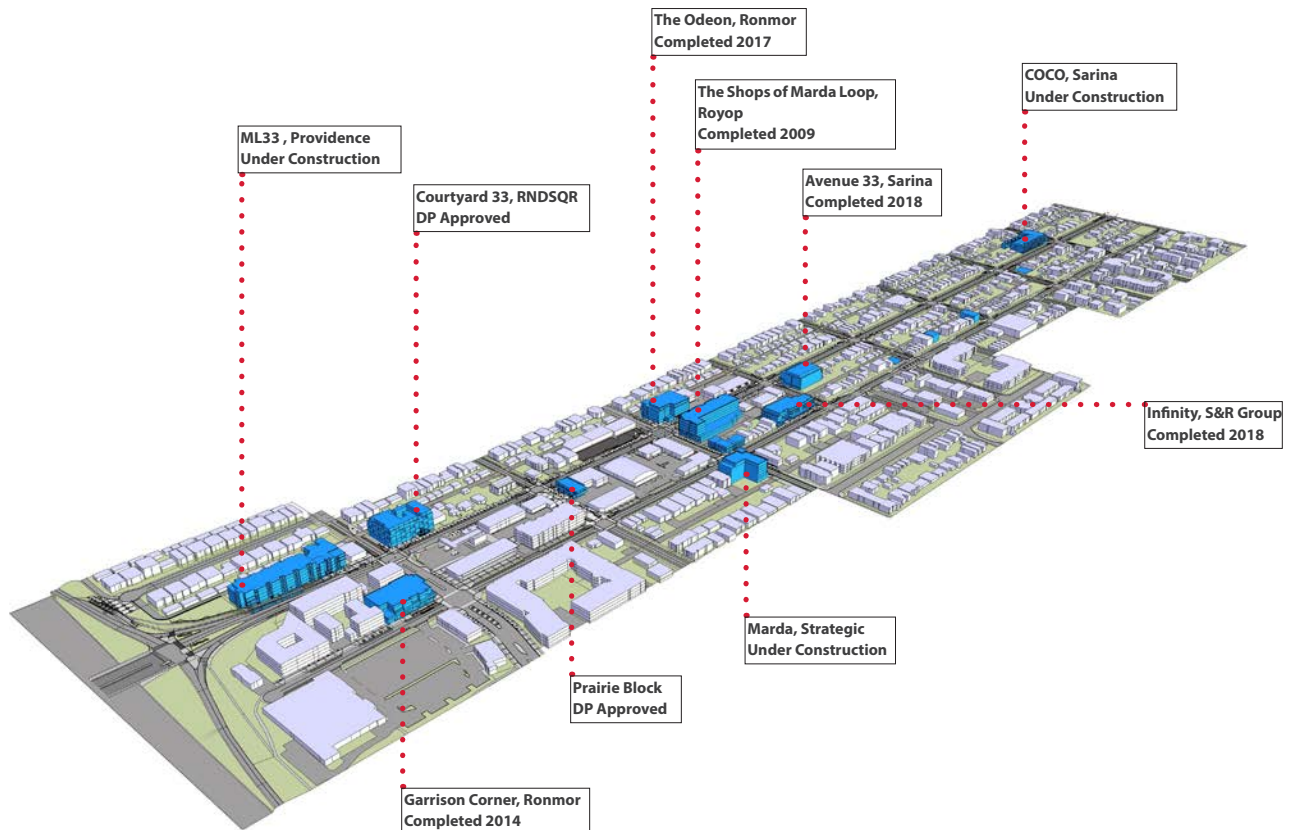


Figure 9 - Marda Loop Main Street Development Activity

Legend

Development Activity in Marda Loop
(Completed, Under Construction, or Development Permit approved)

Design Concepts

Section 3

"The Marda Loop main street has two unique streetscape character areas: urban and residential."



3.1 Design Vision

The design vision statement for the Marda Loop area was created with the community during the engagement process; This statement reflects both the desire of the community and the Master Plan visions and goals of the final design. The design vision statement informs how design decisions were made and supports the Master Plan in the manifestation of the master plan vision.

Marda Loop Main Street Vision:

“The vision for the Marda Loop Main Street is to build a streetscape that includes well-designed, quality public realm elements and public space, that prioritize the pedestrian experience and will support ongoing redevelopment and a thriving economic environment.”

This vision statement was developed as an outcome of engagement 1 and confirmed with the public during engagement 2.

3.2 Urban vs. Residential Zones

The Master Plan aims to support the ongoing development and community transformation by providing design recommendations to help link the public realm to the built form. The Marda Loop Main Street has two unique streetscape character areas: urban and residential. The urban zone, west

of 19th Street SW, is characterized by increased ground floor retail and higher building heights and density. This density and clustering of public uses generates higher volumes of pedestrian traffic than the remainder of the project area and as such the design will aim to improve pedestrian experience and safety.

The residential zone east of 19th Street SW includes primarily residential uses. The residential area of the plan has a need for comfortable traveling space and strong urban connections. With significant new development underway in both the planning and construction stages, the design for both the urban and residential zones has an element of flexibility built in to allow for the street to adapt over time.



Conceptual Design - Festival Street

3.3 The Streetscape Master Plan

URBAN ZONE

Crowchild Trail SW - 19th Street SW

DESIGN CONTEXT



Figure 10 - The Marda Loop Streetscape Master Plan

RESIDENTIAL ZONE

19th Street SW - 14th Street SW



DESIGN CONTEXT

235 lin/m
Reduced Crossing Distance

5840sq.m
Increased Walkway

700
Increased Trees

2200sq.m
Increased Plaza Space

2250sq.m
Increased Green Space

3.4 Re-envision the Right-of-Way

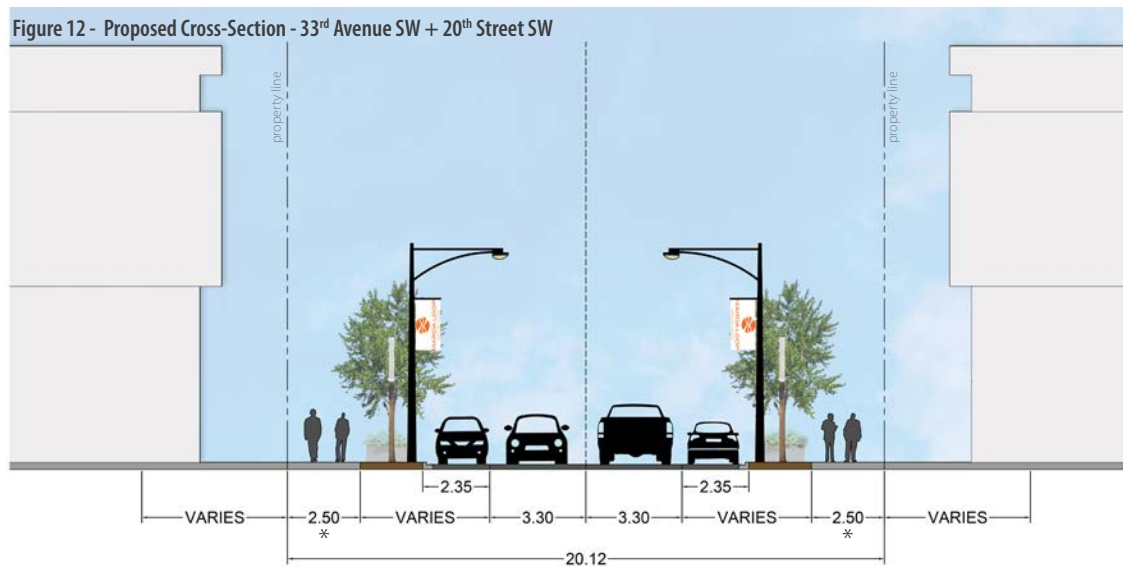
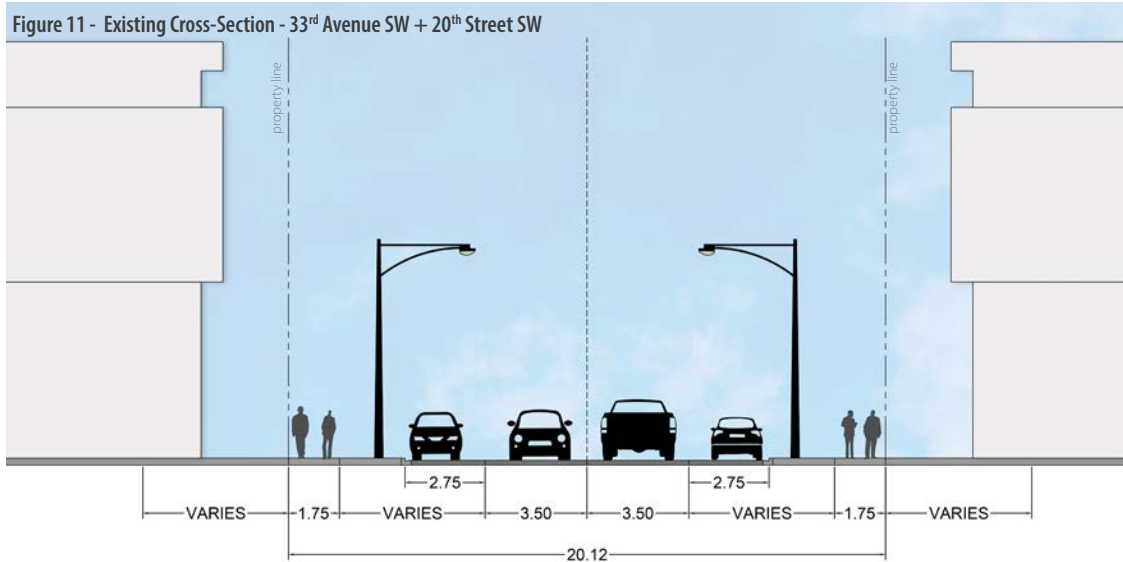
The Marda Loop Main Street currently serves those moving through the community as well as those living there. Past infrastructure decisions mean that priority in conflict areas promotes comfort and speed for drivers. The Main Streets mandate combined with public engagement feedback illustrates the need for change towards a more pedestrian focused main street that prioritizes safety and comfort.

Our approach to right-sizing the right-of-way converts the main street from auto-centric to community focused with high quality public realm elements that maintain the necessary traffic volumes while reducing vehicular, pedestrian, and cycling conflicts. This will create a place that encourages community members and visitors to stay, shop, and enjoy. The travel lanes should be reduced from a variable 3.5m to fixed 3.3m using lane differentiation (e.g. painted lane, coloured paving, concrete banding, etc.) . The parking lanes should narrow from a variable 2.75m to a fixed 2.3m. This small but significant improvement will provide the pedestrian realm with an additional 0.7m on each side of the street for increased sidewalk widths, planting, and furniture zones. The reduction of the vehicular zone in the road right-of-way will help to reduce traffic speeds and establish more predictable user behaviors, leading to a safer public realm experience for the Marda Loop communities.



Upgraded Intersection Conceptual Design

3.5 Urban Zone Existing vs. Proposed Cross-Section



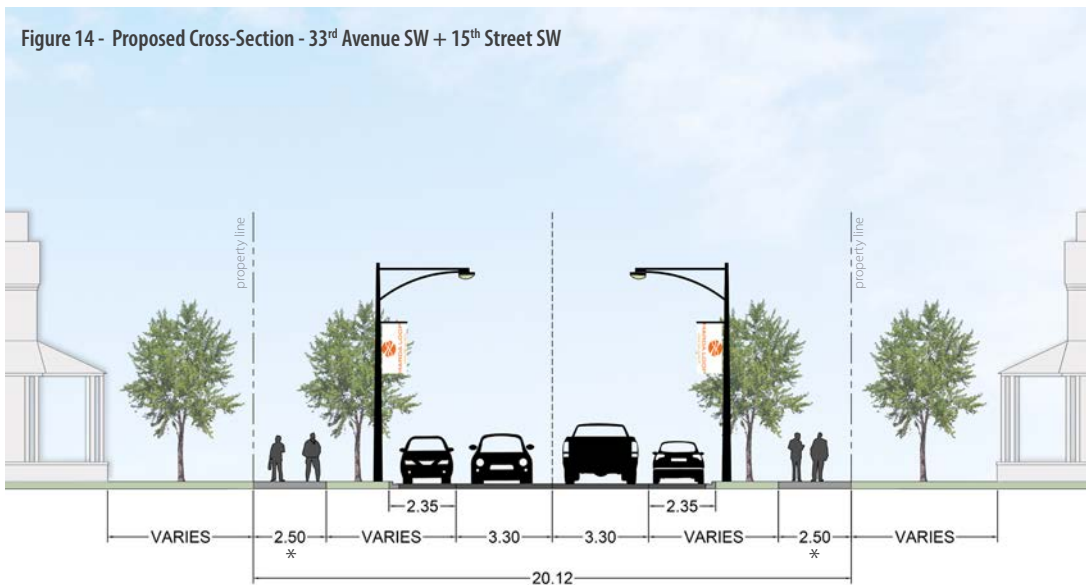
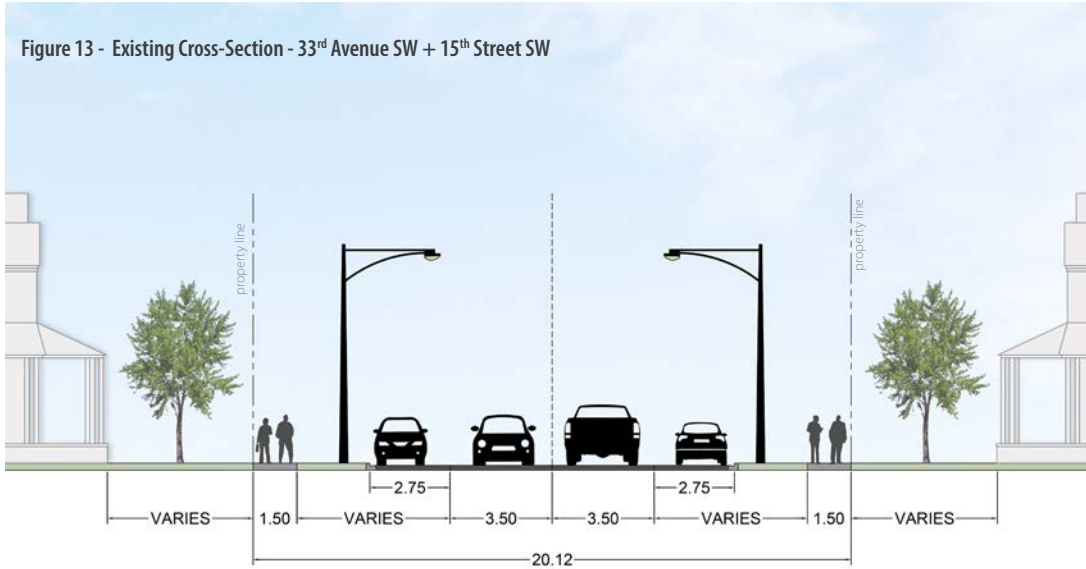
The historical existing right of way is 20.12m, however through investigation it was determined that the average dimension is closer to 20.50m throughout the project boundary. Where extra space exists it should be allocated to the pedestrian zone and/or landscaping within the flex zone.

Urban Zone Proposed Cross-Section Changes

- Trees in tree grates
- Urban planters
- Light standards with banners
- Pedestrian lighting
- Delineate parking lane with banding
- 2.5m pedestrian zone (* where possible from 1.75m)
- 2.3m parking zone (from 2.75m)
- 3.3m vehicular travel lane (from 3.5m)

* Final dimensions will be confirmed during detail design *

3.6 Residential Zone Existing vs. Proposed Cross-Section



The historical existing right of way is 20.12m, however through investigation it was determined that the average dimension is closer to 20.50m throughout the project boundary. Where extra space exists it should be allocated to the pedestrian zone and/or landscaping within the flex zone.

Residential Zone Proposed Cross-Section Changes

- Boulevard street tree planting
- Delineate parking lane with banding
- 2.5m pedestrian zone (* where possible from 1.5m)
- Light standards with banners
- 2.3m parking zone (from 2.75m)
- 3.3m vehicular travel lane (from 3.5m)

* Final dimensions will be confirmed during detail design *

3.7 Corridor Wide Design Strategies

3.7.1 Placemaking

What does a place for people mean in Marda Loop?

Public space is inherently multidimensional and placemaking looks beyond individual elements to examine links. How do people move, interact, and spend time together in a space? It examines and improves upon those individual elements to create vibrant, community focused spaces.

As the Marda Loop area has grown, its public amenities have not grown with it. To ensure the Master Plan is successful, the links between space and place were explored in detail. Important placemaking links identified include the following:

- Architectural Connections;
- Local Food;
- Arts/Culture;
- Vibrancy;
- Sense of Community;
- Public Transportation;
- Street Network; and
- Equity + Mobility.

3.7.2 Iconic Neighbourhood Elements

To celebrate the historic and cultural liveliness of the Marda Loop Main Street, various cultural elements, such as icon monuments, sculptural features, and transitional art can be incorporated into the urban streetscape. These design pieces should help elevate the identity of the Marda Loop area and be easily recognizable.

The icon elements have been identified at gateway locations within the urban zone, at key intersections, and areas of particular value. As redevelopment continues to occur throughout the Marda Loop Main Street, key design elements can permeate out from the heart of Marda Loop, creating interest in the less urban areas. The design of the pieces does not need to be historic, large in scale, or permanent. Depending on the location and the theme, they can reflect the past, present, and/or future of the Marda Loop area and can be exchanged as the community continues to grow and evolve.

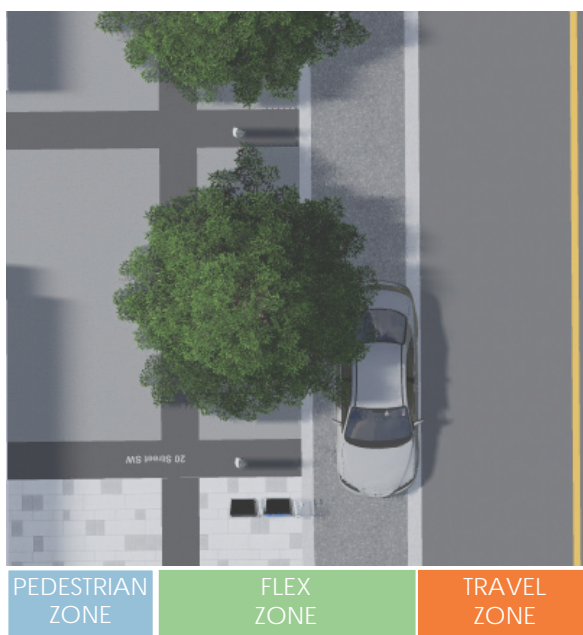


3.7.3 Flex Zones

With the influx of development along the Marda Loop Main Street, the area is experiencing rapid growth. To ensure the Master Plan can adapt with the changing community, 'Flex Zones' have been introduced as a key tenet of the Master Plan. The idea of a 'Flex Zone' is to acknowledge the ongoing transformation of on-street parking spaces into places for people to sit, relax, and enjoy; to provide public amenity space and planting options; and to allow flexibility for future uses.

The zones provide a buffer between the travel lane and the pedestrian realm helping to increase safety and create a more human scale to the urban environment. Through increased foot traffic, more community attention due to the unique features associated with businesses, and an increased sense of ownership between the local businesses and the community, the flex zones can help to support active ground floor retail. The residential community also stands to benefit from a wider variety of seating options, increased landscaping, and a more vibrant public realm through the provision of spaces which suit and support those uses.

The Marda Loop communities will continue to change and the space within the flex zones can adapt along with it. As the residential buildings become more mixed-use, the streetscape flex zones can change from boulevard trees to trees in tree grates and some parking spaces can become patio space using parklets and other incremental design changes. These design changes may include utilizing the space to provide permanent main street-wide improvements, such as the provision of cycling facilities on 34th Avenue SW and as demand and need requires, the flex zones could also accommodate different mobility choices.



3.7.4 Landscaping + Planting

Landscaping was identified during the public engagement sessions as a serious shortcoming that was important to address. This was approached through the addition of street trees and soft landscaping where possible.

New street trees are proposed in both the urban and residential zones. In the urban zone, these would be provided in tree grates to ensure for adequate soil volume and support increased pedestrian traffic; in the residential zone, these would be boulevard trees. As the urban zone expands, the treatment may change. In some areas of the main street, existing underground utilities and narrow sidewalks make it challenging to successfully plant trees, especially in the near term. To overcome this constraint, large planters may be used in select locations.

At intersections throughout the Master Plan, planters are encouraged to support the landscaping of the community area and provide a valuable public asset. Focusing the upgraded planting at the intersection will help to create distinct focal points at each block, creating community focused spaces that are comfortable and provide opportunities for shaded seating.



3.7.5 Nightscaping + Lighting Design

Given the prolonged periods of darkness during Calgary's shoulder seasons and winter months, lighting is extremely important within the study area to promote a vibrant, accessible year-round public realm. Nightscaping, predominantly shaped by the provision of lighting for pedestrian users, can be transformative — extending the use of public spaces into the night hours and creating spaces where moments of fun, exploration, vibrancy, and excitement happen year-round. Additionally lighting will be used as a common design element that can tie the unique spaces of the Master Plan into the whole corridor design aesthetic.

The value of lighting is not only measured by the ability of users to access and enjoy a space but through safety benefits that increased lighting provides to the public realm. Lighting on this scale and purpose is an identified value, particularly in the fields of Crime Prevention Through Environmental Design (CPTED). Areas such as the SWBRT Plaza and adjacent Neighbourhood Park (as discussed in Section 4.1.3 - Neighbourhood Park) or sidewalks without adjacent businesses, will be engaged in the public realm as safe, welcoming, well-lit spaces.

Along with streetscape lighting, pedestrian-scale lighting should be considered in all plazas and open spaces throughout the study area. As an example, the Festival Street (as discussed in Section 4.1.4 - Festival Street) has been designed with pedestrian-scale canopy lighting as a key feature to help further define the plaza as a pedestrian focused public open space. The lights create a whimsical canopy, making it feel more intimate within a busy streetscape. The lighting is the first step in creating a space that may allow for live music, pop-up markets, winter festivals, and other events to gracefully transition past dusk. Potential lighting elements will be explored further during detailed design.

3.7.6 Winter City Design

Calgary is a four-season city; with that in mind it is important to incorporate flexible seasonal elements into the streetscape to enhance the Marda Loop Main Street, especially during low light and winter weather conditions. Throughout the study area, opportunities have been made available to hang seasonal decorations from the street light brackets, canopy lights or banners across the streets from light pole to light pole, or to add holiday lighting to plaza spaces. This treatment can engage the eye, adding light, colour, and warmth to the streetscape while also making it feel safer during bleak conditions.

To ensure the continued success of the main street, it must function as an all-season environment. While the Marda Loop area currently supports various outdoor events throughout the summer, such as Marda Gras, sidewalk sales, farmers markets, and other community events, the public realm is much less active during the winter months. The proposed streetscape enhancements help to promote a main street that is active year-round, from new infrastructure for seasonal decorations and lighting, to expanded public gathering spaces with seating options in a more comfortable micro-climate. Other winter city design recommendations include:

- Encourage the activation of the Festival Street, BRT Plaza, and other gathering spaces for winter activities (described in Section 4.1 - Design Elements);

- Encourage snow focused play areas, ice sculptures, Christmas markets, etc.;
- Incorporate seasonal decorations and lighting;
- Incorporate better snow clearing; and
- Incorporate snow storage areas.



Christmas Market - Vienna, Austria



Winter Parklets - Lahti, Finland

Snow + Ice Removal

The Marda Loop Main Street enhancement process presents a significant opportunity to consider snow removal in the design of road improvements. While some of the proposed streetscape elements such as intersection bump-outs, pose potential obstacles for snowplows, the streetscape allows for snow storage areas. The Marda Loop area should benefit from great streets while at the same time dealing with the realities of winter conditions by establishing a comprehensive snow removal strategy.

Winter Maintenance Recommendations:

- Designate certain on-street parking spaces to allow for snow storage in the boulevard;
- Restrict on-street parking during snow events;
- Minimize damage from snow clearing equipment by placing vertical elements on bump-outs to provide visual cues to plow operators;
- Consider utilizing ATV mounted snow snowploughs or other small snow removal vehicles for bike lanes and sidewalks;
- Implement a priority system for snow removal on sidewalks and around transit stops;
- Locate snow storage areas where they will receive enough solar radiation to speed melt-off; and
- Store snow in several smaller sites, rather than one large area in order to speed melt-off during Chinook events.



Pedestrian Lighting - Calgary, AB



Winter Planters - Tromsø, Norway



Cleared Pathways - Calgary, AB

3.7.7 Safety + Pedestrian Prioritization Strategy

The technical improvements align with City policy and external best practices to support the movement of people, which will in turn support the retail and residential uses in the Marda Loop area. The movement of pedestrians is critical for the public activity and commercial success of a main street. From a community perspective, the concerns about pedestrian safety, comfort, and gathering were continuously heard throughout the Master Plan development.

The Master Plan strives to improve this in two environments; first, the improvement for pedestrians moving through the community, second, the improvement for people lingering within the community. This balance of activities is important to support public life as it denotes both the value of walking as a transportation solution and the comfort within the public space.



First, to address pedestrian safety and circulation, the design strives to improve the geometry at intersections throughout the study area. The concept of curb extensions enables people to remain on the curb while advancing past parked cars, making them more visible to vehicles and vice versa. This is treatment supported by accessible design, including urban braille, and improved delineation of crosswalks with a different treatment clearly defining the crossing locations. Safety is further supported by employing the principles of CPTED; the Master Plan proposes increased community lighting and through the design, spaces will be developed that will pull the public eyes on the street, bringing the street and less used components into the public realm where people are engaged in the space.

To support pedestrian lingering, a defined, comfortable, and inviting public space where people can engage in either organized activity or just sit and check their phones needs to be provided. These areas require a degree of separation from other people and vehicles as well as enough space for activities. For example, the Festival Street (described in Section 4.1.4 - Festival Street) provides significant interest in the design and a large space for organized events while the corner of 20th Street SW and 33rd Avenue SW has a public space on the northwest corner, supporting individuals sitting, waiting, or passing through comfortably. Both these locations support the act of lingering in different ways.

3.7.8 Improved Mobility for All Modes

The Master Plan explicitly highlights the goal to improve mobility for all modes, while stressing the role of the pedestrian. The Master Plan addresses vehicle movement through the right-sizing of the right-of-way, ensuring that the design speed and design volume match the travel lane. The travel lane width now being clearly delineated by the line between parking and driving lanes is critical to supporting the safe and consistent interactions between these modes without reducing the parking supply. Having understood that the interaction between vehicles and pedestrians is a component of a successful main street, these will not be reduced by the design, as they are directly associated with street vibrancy.

The transit study, Section 2.4 - Background Studies, provides for route optimization which is supported by improved stop design and waiting areas, with enough space for waiting shelters, waste bins, and other components to support comfortable use. At timing points (bus stops with a specific time the bus is supposed to stop at), the bus will pull off to the side to allow vehicles to pass in accordance with City standards.

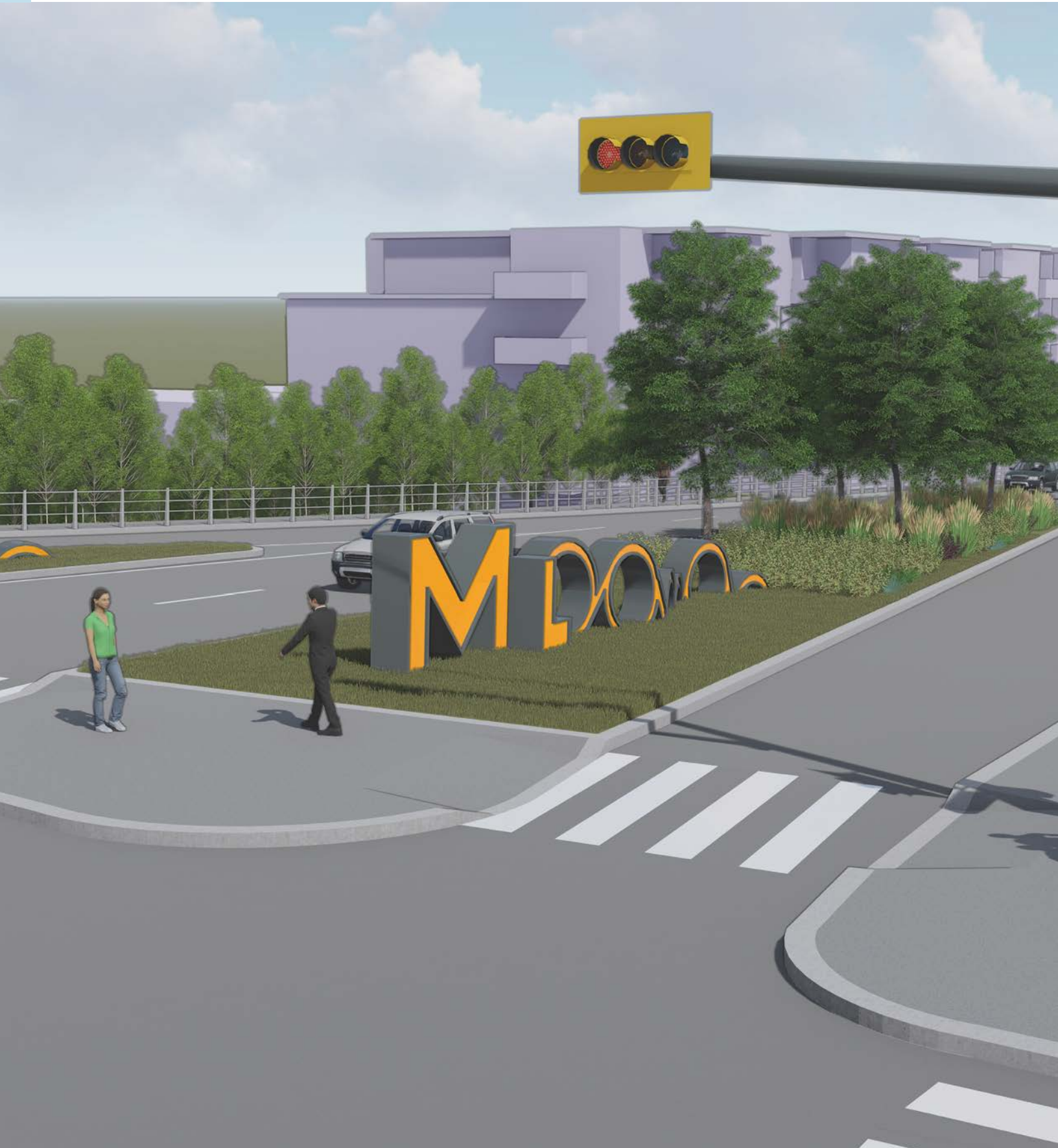
The lane accesses have been designed to prevent parked cars from blocking them and to ensure that pickup and delivery vehicles have a clear line of sight when moving into or out of the alleys.

To provide support for the growth in cycling, the Master Plan includes significant bike parking on the street, with centralized locations at intersections through the urban and residential areas. Within the streetscape, bike parking is recommended in a manner that can be increased easily at business or community request. The infrastructure recommendation in Section 2.4 - Background Studies, requires alteration of either a travel lane or a parking lane on 34th Avenue SW with the final bicycle facility involving further community engagement at the appropriate time. Although beyond the study area, the west connection over Crowchild Trail SW was often identified as requiring improvement.

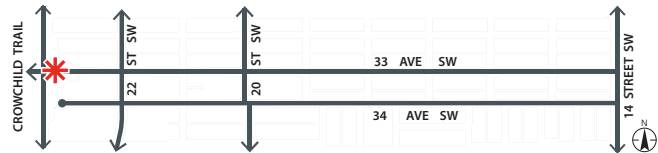


Design Elements

Section 4



Key Map



4.1 Key Design Elements

Rooted in community participation the design components highlighted in Section 4.0 - Key Design Elements of the Master Plan are intended to reshape the way the community uses the corridor. More than just streetscape beautification the design components aim to link Marda Loop together from Crowchild Trail SW to 14th Street SW, improve the community's cultural, economic, social and ecological standing and ensure the design links directly to the broader goals of the community outlined in Section 1.5 - Intent, Goals, and Objectives + Strategies of the Master Plan.

4.1.1 Gateways

Crowchild Trail SW Intersection

A community feature entering Marda Loop that reflects the local architecture used within the main street is essential to celebrating your arrival to the neighbourhood and creating a sense of place within the context of the city. To best accommodate a sense of entrance two abstract

community icon features that play off the 'loop' in Marda Loop have been proposed at both ends of the Marda Loop Main Street.

The primary community feature is located on the west side at the Crowchild Trail SW and 33rd Avenue SW intersection. The design intent of the entry icon is that of a well-lit feature designed at a large enough scale to capture the user's attention at the Crowchild Trail SW interchange. The feature shown is an artistic representation only, with the scale and specific characteristics to be determined during detail design and costing. The final gateway feature should help create an identity for Marda Loop and be easily recognizable as an icon in the city.

Included in the design of the community entry icon was the examination of the pedestrian experience at Crowchild Trail SW and 33rd Avenue SW as it was identified during the engagement process as one of the most problematic areas in Marda Loop. The Master Plan identified an opportunity for a new

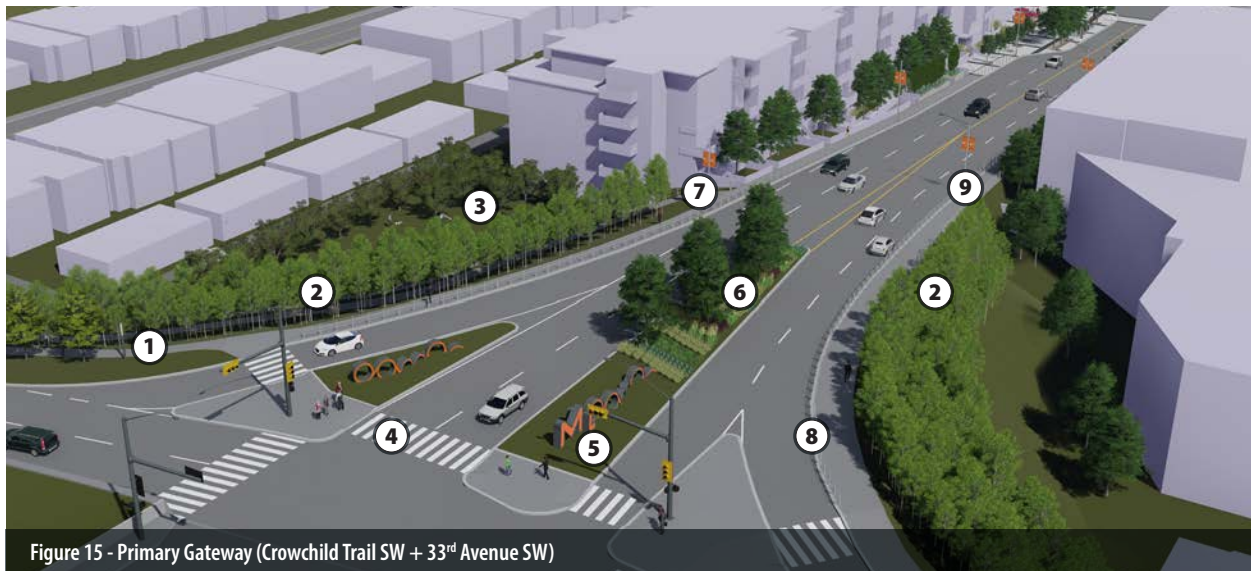


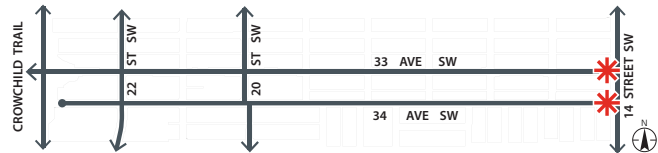
Figure 15 - Primary Gateway (Crowchild Trail SW + 33rd Avenue SW)

- | | | | | |
|---------------------------------------|-----------------------------|-------------------------|--|--|
| 1 Connection to SW BRT Station | 3 Neighbourhood Park | 5 Entry Icon | 7 Accessible Connection to Neighbourhood Park | 9 Streetlights with Community Banners |
| 2 Aspen Grove | 4 Upgraded Crosswalk | 6 Entry Planting | 8 Upgraded Pedestrian Railing | |

DESIGN CONCEPTS



Key Map



alignment for the interchange. The new alignment should reduce vehicular speeds at conflict points and simplify yielding to other cars and pedestrians overall, creating safer pedestrian crossings. This conceptual design has been provided for future consideration for a separate project, as the ultimate intersection design is outside of the study area and considerations such as traffic modeling would need to occur prior to advancing. The alignment supports the principle of improving mobility.

14th Street SW Intersection at 33rd & 34th Avenues SW

Two minor community icon features are proposed on the east side of the main street along 14th Street SW to help identify Marda Loop from the 14th Street SW intersection. While similar in design to the Crowchild Trail SW entrance feature, the icon features here are proposed to be at a more pedestrian scale to relate to the context of the area as a primarily residential entry point.

Project Outcomes:

- Unique streetscape elements that reflect the Marda Loop area as a destination.
- Improved wayfinding and landmark within the community.
- Improved geometry to increase safety and circulation for all modes.
- Iconic features that easily identify the area as a gateway to Marda Loop.

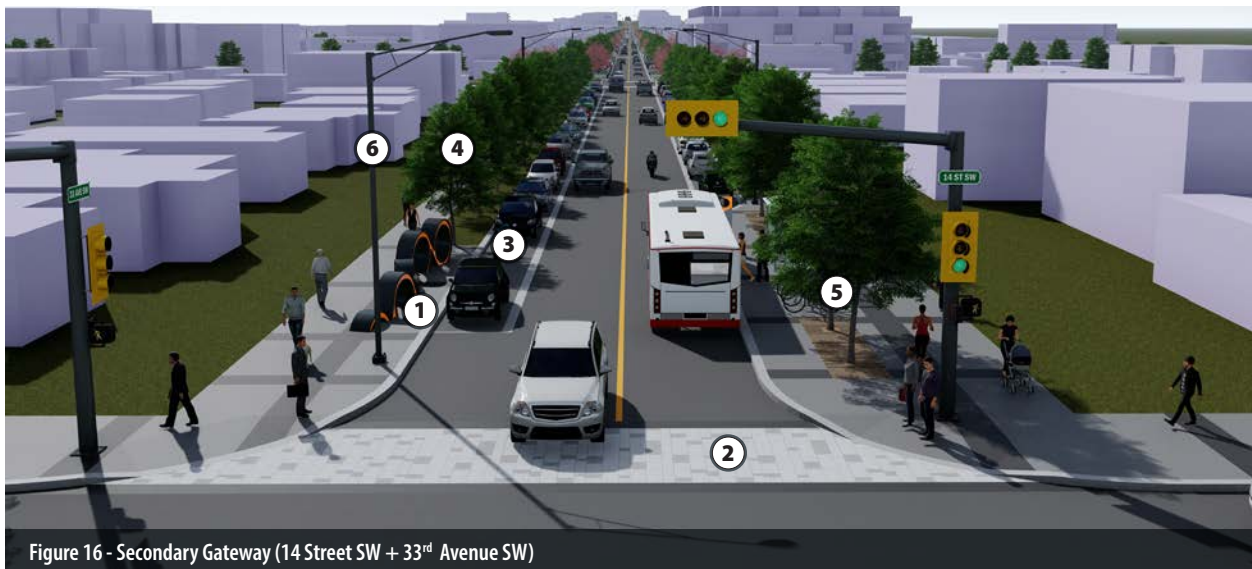


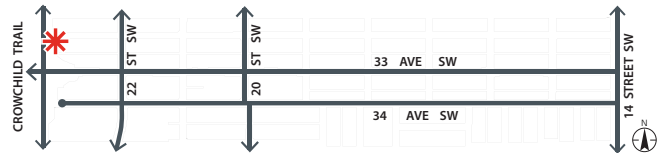
Figure 16 - Secondary Gateway (14 Street SW + 33rd Avenue SW)

- | | | |
|----------------------|----------------------|------------------------|
| ① Entry Icon | ③ Parking Lane | ⑤ Trees in Tree Grates |
| ② Upgraded Crosswalk | ④ Boulevard Planting | ⑥ Streetlights |



DESIGN CONCEPTS

Key Map



4.1.2 SWBRT Plaza

A new Marda Loop South West Bus Rapid Transit (SWBRT) station off Crowchild Trail SW is planned for the northwest section of the study area. The community and Council directed that integration within this project is a priority in the design. To achieve this, a transit plaza designed for transit users accessing and egressing the SWBRT has been proposed, supporting wayfinding and clear pedestrian connections from 33rd Avenue SW to the SWBRT station.

To ensure a smooth transition between the stop, the plaza, and the Marda Loop Main Street, integration was developed in coordination with the SWBRT project team. This plaza should serve to welcome users to the community as a safe, well-lit area that feels comfortable. The plaza supports the principles of reflecting the character of the area, improving mobility, and providing opportunities for community gathering spaces. The design of the SWBRT station is not within the scope of the Master Plan and as such, the implications of design alternatives are further explored in *Appendix A: Technical Information*.

Project Outcomes:

- Design that reflects the aesthetics of Marda Loop and creates a specific identity along the future SWBRT route.
- Provision of public waiting and gathering space.
- A safe, well-lit, accessible, direct link from the main street to the SWBRT.
- Increased landscaping to support pedestrian comfort.
- A gateway to Marda Loop from a regional transit system.
- New all access pedestrian connections to support increased mobility.



Figure 17 - SW BRT Plaza (32 Avenue SW)

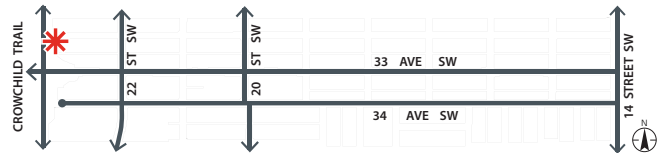
- | | | | | |
|------------------------------------|---|---|---|---|
| 1 SWBRT Station | 3 Raised Planter with Integrated Seating | 5 Landscape Berms | 7 Connection to Neighbourhood Park | 9 Pathway Connection to 33 rd Avenue SW |
| 2 Retaining Wall with Mural | 4 Upgraded Plaza Paving | 6 All Access Connection to BRT Station | 8 Pedestrian Lighting | 10 Entry Icon |

Removal and/or relocation of existing sound wall will be investigation during detailed design.

DESIGN CONCEPTS



Key Map



4.1.3 Neighbourhood Park

The neighbourhood park provides a needed public green space within the urban zone. The park is design to be flexible in its program options to allow for a multitude of uses. As density increases, there is less opportunity to provide green spaces for public use; this design meets that need by creating a connection and gathering area in a currently unused, unmaintained space. This space is not limited to the role of solely a public space, building on the community gardens already within the community, the design includes trees that may grow fruit with the maintenance and foraging potentially managed by community members. The design also includes an open lawn for passive recreation, a picnic area and landscaped berms that provide an informal play space for children of all ages. The retaining wall included also provides a great opportunity for a community mural or art which will be better defined during detailed design.

Project Outcomes:

- Integrated park between Marda Loop and the Crowchild SWBRT station.
- The open lawn and picnic area act as key community gathering space.
- Increased landscaping to support pedestrian comfort.
- New all access pedestrian connections to support increased mobility.

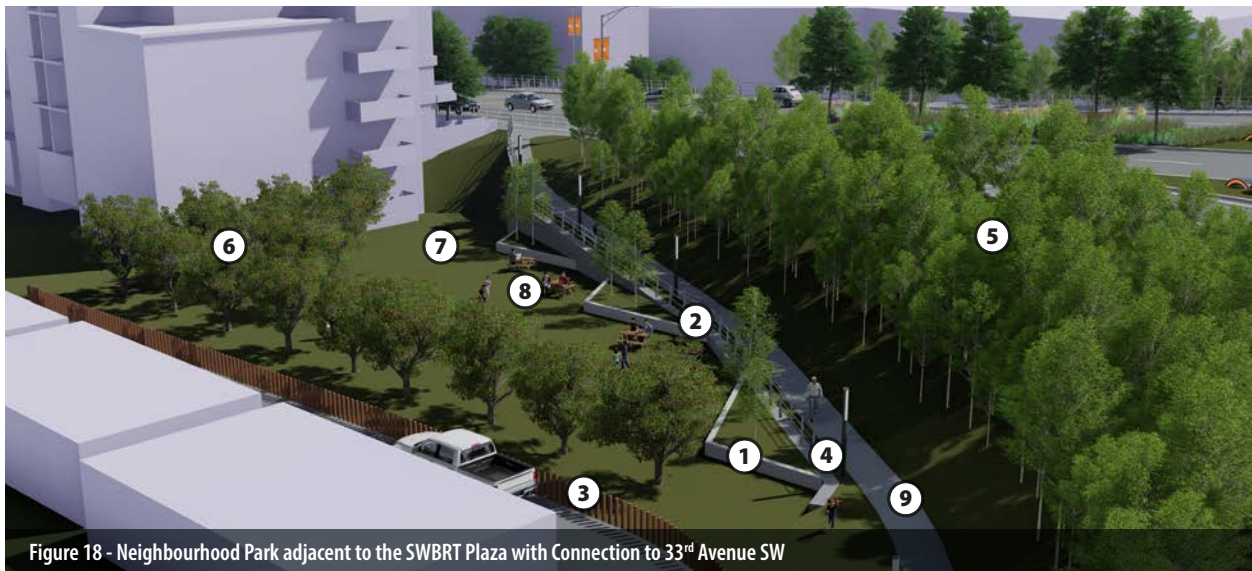


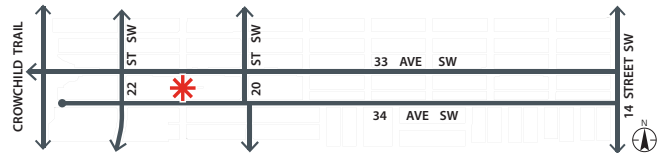
Figure 18 - Neighbourhood Park adjacent to the SWBRT Plaza with Connection to 33rd Avenue SW

- | | | | | |
|--|------------------------------|----------------------|----------------------|--|
| 1 Raised Planter | 3 Laneway Fencing | 5 Aspen Grove | 7 Open Lawn | 9 Pathway Connection between SWBRT and 33 rd Avenue SW |
| 2 Retaining Wall with Hand Rail | 4 Pedestrian Lighting | 6 Fruit Trees | 8 Picnic Area | |

DESIGN CONCEPTS



Key Map



4.1.4 Festival Street

The area of 21st Street SW, south of 33rd Avenue SW to the laneway connection, provides a unique opportunity for placemaking by creating a public gathering node along the corridor directly adjacent to the retail users. The project identified a shortage in public gathering spaces that can be programmed or operated organically in Marda Loop. The primary motivation behind the use of this scheme is to provide a space that can be programmed for BIA/CA events and drive visitors into Marda Loop, while reducing the impact of the vehicle within the street, thereby providing a pedestrian focused environment. The street is envisioned to be fully closed to provide a dynamic space in the heart of Marda Loop where larger community functions, such as live music, markets, and winter festivals can take place. The festival street plaza will offer expanded areas for programed space, patio space for restaurants and cafes, and unique programmable space during festivals. This component of the design can be piloted in the intirm to test the usage and design prior to making it permanent.

Project Outcomes:

- Activating user interaction within the urban area of Marda Loop.
- A space reflecting the unique character of the area.
- Opportunities for programmed community events + functions.
- Attractive, comfortable, and inviting environment that promotes active uses and creates destination within Marda Loop.
- Provides an opportunity for social opportunities and flexible space that is shaped by the residents of Marda Loop.
- Help create a new identity for Marda Loop through events programmed in the space.

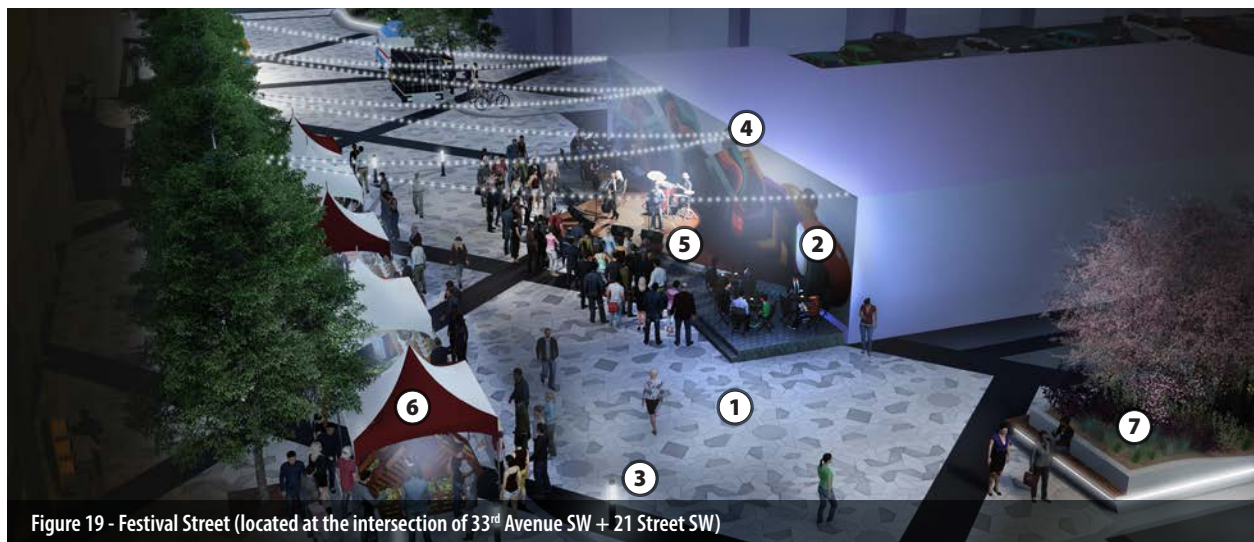


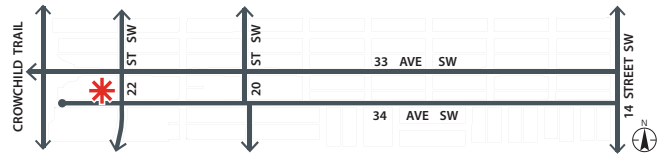
Figure 19 - Festival Street (located at the intersection of 33rd Avenue SW + 21 Street SW)

- | | | | |
|-----------------------------------|------------------------------------|------------------------|-------------------------------|
| 1 Upgraded Festival Street Paving | 3 Entry Bollards | 5 Stage / Cafe Seating | 7 Raised Planter with Seating |
| 2 Marda Loop Mural | 4 Pedestrian Scale String Lighting | 6 Market Tents | |

DESIGN CONCEPTS



Key Map



4.1.5 34th Avenue SW Plaza

The retail plaza at the intersection of 34th Avenue SW and 22nd Street SW is a valuable opportunity for the main street to integrate with the retail spaces currently serving the community. These businesses include coffee shops, a bakery, an ice cream shop, a beauty bar and services such as a daycare. This area of Marda Loop has already achieved a density of retail options where people are drawn to. As businesses change over time this pattern of development is likely to continue providing the opportunity to incorporate temporary seating areas that are adaptable to changing uses of retail.

The main street design at the retail plaza provides additional spaces for people, with a unique treatment at the corner and the recommended location of a seating area opportunity supporting the activity generated by these private stores/land uses. This design has been supported by the background parklet pilot implemented in Summer 2018.

Project Outcomes:

- Community gathering space with unique seating opportunities.
- A welcoming micro-climate creating comfortable places for people.
- Increased landscaping to support pedestrian comfort.



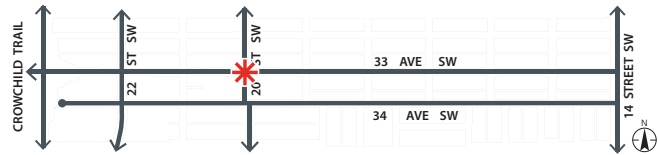
Figure 20 - 34th Avenue SW Plaza (located at the corner of 34th Avenue SW + 22nd Street SW)

- | | | | |
|-----------------------------|-------------------------------|--------------------------------|---|
| 1 Optional Parklet | 3 Seating Options | 5 Pedestrian Lighting | 7 Raised Planter with Integrated Seating |
| 2 Upgraded Crosswalk | 4 Trees in Tree Grates | 6 Lighting with Banners | |

DESIGN CONCEPTS



Key Map



4.1.6 20th Street SW Intersection

The intersection of 20th Street and 33rd Avenue SW presents the retail core of the Marda Loop Main Street. This intersection ties the interaction of pedestrian, cyclists, transit, automotive movement, and parking in one tight urban area while retaining cycling space. The surrounding buildings speak to the role of this intersection, serving both passive users enjoying a coffee or drink, or active users, running errands. The design solution for this intersection is to optimize the curb and lane alignment to meet the design standards for the current layout. In addition to improvements to the operation of the intersection, the design of the northwest corner, to better serve as a public gathering space and provide capacity for the role of this intersection, creates a defined opportunity without dominating the limited main street and impacting future development. It is expected that redevelopment will bring the frontages of buildings to the street, making this intersection more vibrant with time.

Project Outcomes:

- Provide safe places to walk, gather, and linger.
- Opportunities for community gathering spaces.
- Improved mobility through realigned road geometry.
- Support for both passive and active users.

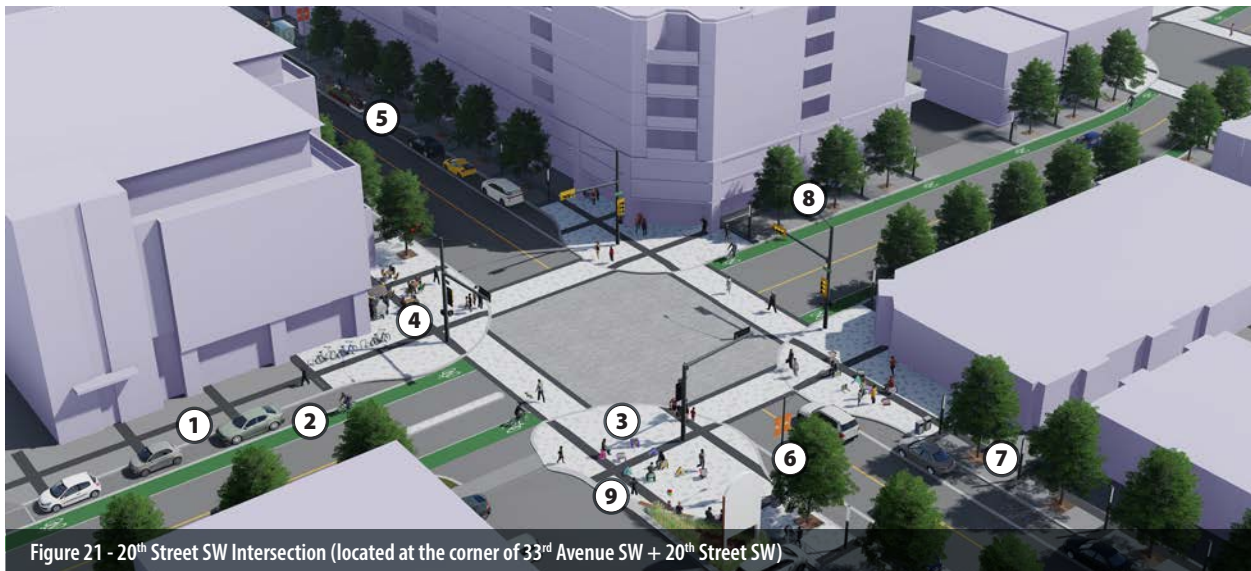


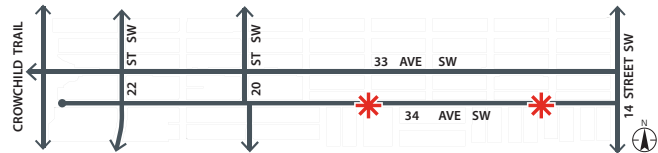
Figure 21 - 20th Street SW Intersection (located at the corner of 33rd Avenue SW + 20th Street SW)

- | | | | | |
|---------------------|----------------------------------|-------------------------------------|------------------------|--|
| ① Parking Lane | ③ Corner Plaza with Icon Seating | ⑤ Parklet | ⑦ Pedestrian Lighting | ⑨ Retaining Wall with Integrated Seating |
| ② Painted Bike Lane | ④ Blush Lane Plaza with Seating | ⑥ Streetscape Lighting with Banners | ⑧ Trees in Tree Grates | |

DESIGN CONCEPTS



Key Map



4.1.7 34th Avenue SW Offset Intersections

The urban fabric within Marda Loop is fragmented south of 34th Avenue SW as the symmetric grid pattern found in the neighbourhood of South Calgary changes as you move south into Altadore and Garrison Woods. The result of this switch in the urban fabric are offset intersections that pose a safety concern and cause confusion to both pedestrian and vehicular traffic. The proposed design of the offset intersections decreases vehicular and pedestrian conflicts and improves pedestrian safety at the complex intersections. The illustration below depicts the proposed change to the intersections at 34th Avenue SW + 18th Street SW and 34th Avenue SW + 15th Street SW. Medians are included to discourage jaywalking and temporary planters should be placed along the intersections to help blur sightlines and create a pedestrian focused environment.

Project Outcomes:

- Reduce pedestrian and vehicular conflicts.
- Flexible design for potential future cycling infrastructure.
- Enhanced landscaping with the addition of movable planters.
- Provision for pedestrian refuge space.

While the proposed design is aimed to increase pedestrian safety and remove conflicts from 34th Avenue SW, these intersections may impact the design opportunity for a dedicated cycling facility. Further study will be required during detailed design to address and evaluate this potential conflict.

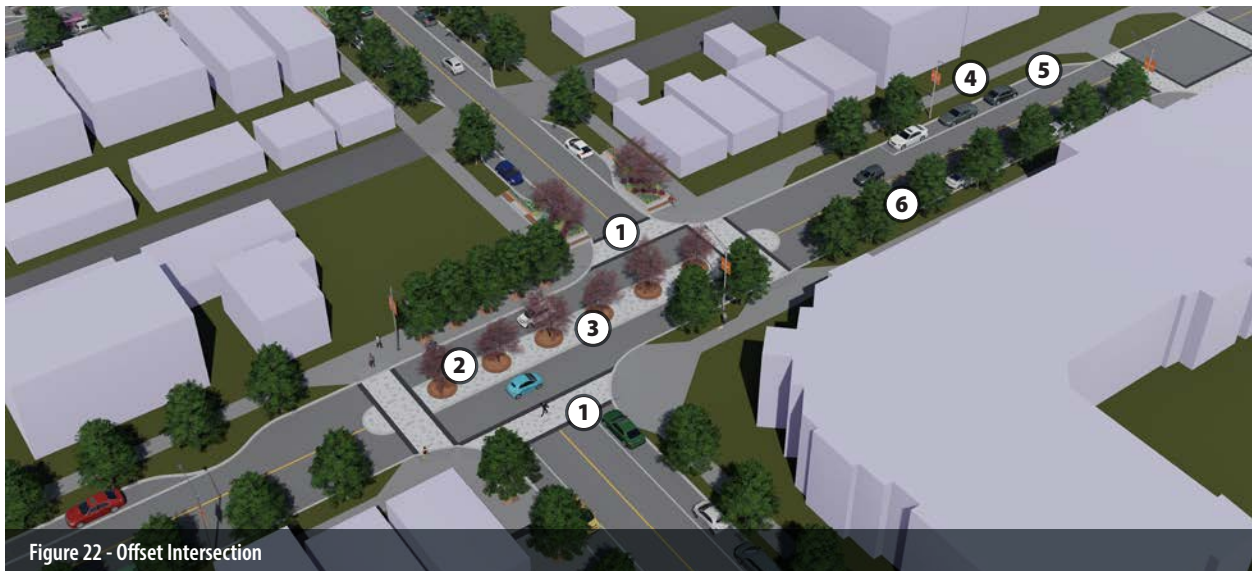


Figure 22 - Offset Intersection

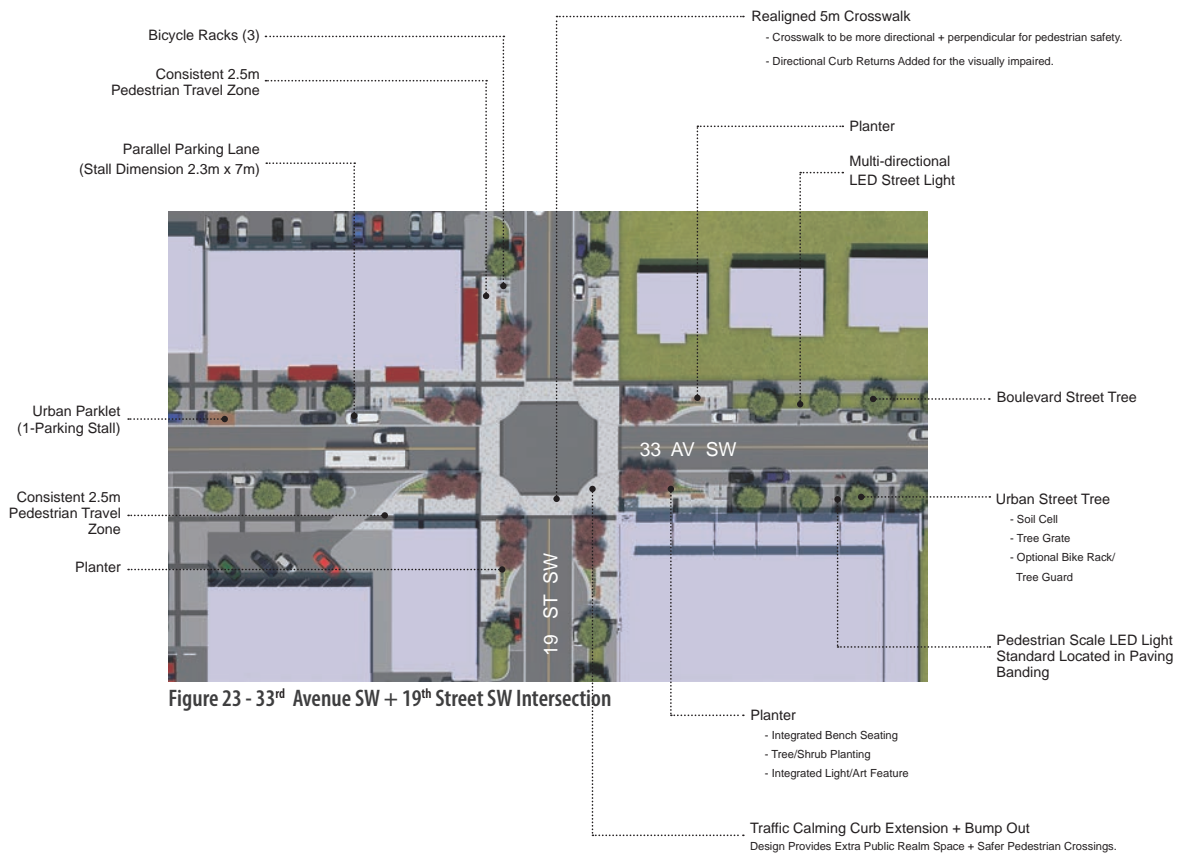
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|-----------------------------|-----------------------------------|--------------------------|
| 1 Upgraded Crosswalk | 3 Raised Vehicular Barrier | 5 Parking Lane |
| 2 Raised Planter | 4 Street Lighting | 6 Boulevard Trees |

4.2 Design Standards

4.2.1 Intersection Treatments

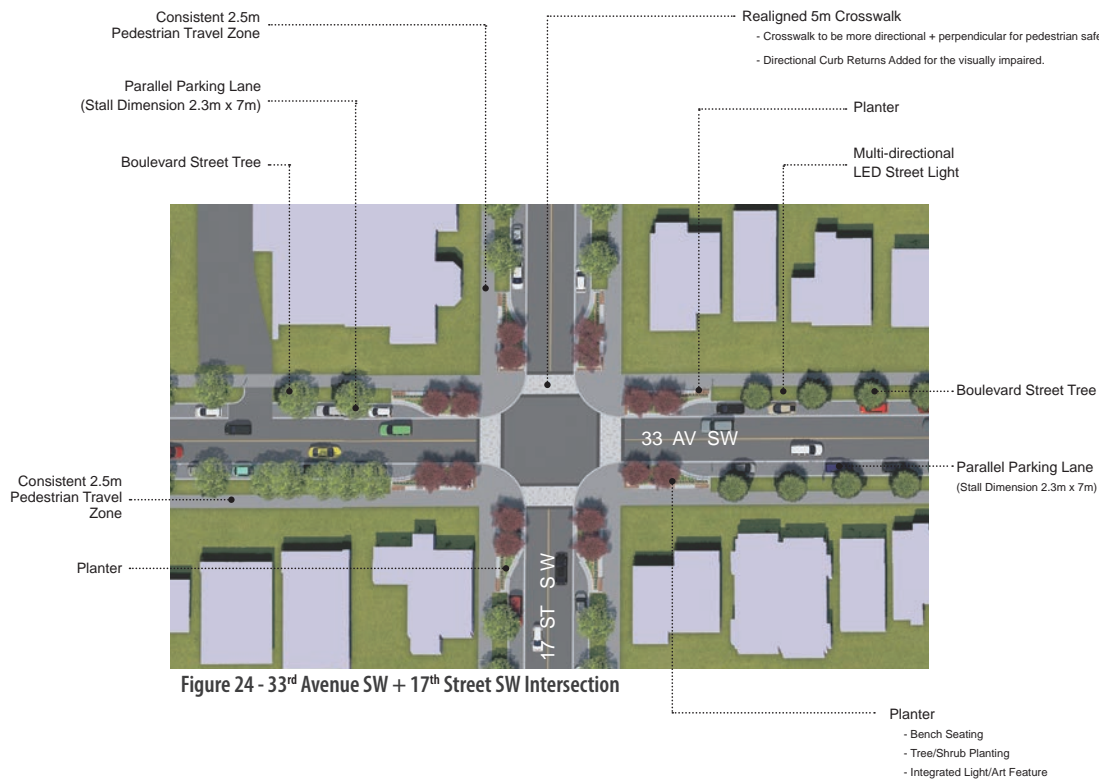
Urban Zone

The typical urban zone intersection treatment has been designed with a focus on pedestrian safety and placemaking. The design aims to create new dynamic pedestrian spaces for all community members to sit, watch, and explore; increase the urban tree canopy; and improve pedestrian safety and connections.



Residential Zone

The intersections in the residential zone have been designed to suit the current residential context and support expansion and future developments. The design has been focused around safety, enhancing connections and improving the pedestrian environment while supporting the experience within Marda Loop.



DESIGN CONCEPTS

4.2.2 Pedestrian Travel Zone Typical

The pedestrian travel zone is the primary accessible pathway running parallel to the vehicular travel and parking lanes. The travel zone ensures that pedestrians have a safe place to walk. Buffered by the flex space, the travel lanes have been designed at an appropriate scale to allow for ease of movement while still allowing for a high level of street activity. Shade, street furniture, and sufficient lighting should be used where possible adjacent to the pedestrian travel zone. The recommended treatment for the pedestrian travel zone is a clear 2.5m walkway that is safe, accessible, and designed with ease of maintenance in mind.

Design Intent:

- Material and texture to provide visual delineation.
- Pedestrian travel zone should align across intersections where possible.
- Furnishing and seating should not encroach within travel zone.



4.2.3 Laneway Access Treatment

The laneway access treatment recommended within the Master Plan addresses several current shortcomings including providing greater opportunities for landscaping. Parked vehicles will no longer block access to the lane; which is increasingly important as reliance for serving deliveries and pickups by businesses increases. Sightlines will be improved for vehicles entering and exiting parkades during rush times. The accessibility for those on the sidewalk will be improved by moving the cross-slope into the street instead on the sidewalk. The laneway access treatments can support landscaping, enhanced pedestrian comfort and improved mobility.

Design Intent:

- Provide clear service access to the laneway.
- Remove opportunity for parked vehicles to block the laneway access.
- Increase landscaping opportunities to mark laneway access.
- Improved ease of goods movement.



4.2.4 Improved Crosswalk Treatments

Crosswalk treatments are proposed at crosswalks in both the urban and residential zones of the study area. Crosswalk treatments address challenging geometry and sightlines. This is achieved through curb extensions, tactile surfacing, and clear crosswalk delineation. This concept includes current design standards, such as the use of urban braille. These treatments will increase pedestrian safety and address issues at problem intersections.

A collaborative process of design development was employed to improve the geometry and deliver improved public spaces throughout the study areas. Presented turning radii are indicative standard only depending on the road classifications for future work. The landscaping/planters are designed to accommodate the site triangle, support public art, a variety of planting types and enhanced pedestrian comfort and mobility.

Enhanced sidewalk and crosswalk paving should be in key areas along the Marda Loop urban Main Street to clearly delineate the pedestrian zones. With pedestrian safety being a major tenet of the Master Plan, ensuring the crosswalks are well identified and clearly signed is paramount to the design. The enhanced crosswalks should consist of materials that promote improved accessibility.

The sidewalk width should be increased to 2.5m throughout the Marda Loop Main Street to ensure the pedestrian realm is consistent and encourages a safe comfortable walking experience throughout the main street. The paving pattern should change to typical concrete with banding mid-block and

into the residential zone; continuing this paving theme throughout the main street will help to enhance the urban pedestrian experience.

Design Intent:

- Paving material should be consistent at the intersection and crosswalk.
- Provide separate curb ramps for each direction of travel.
- Curb ramps to be the full width of pedestrian zone (2.5m), with traversable flares to promote accessibility.
- Materials should extend across the full width of the curb ramp, excluding the traversable flares.



Upgraded Crosswalk Treatment

4.2.5 Bus Stops Improvements

There are few amenities for transit users in the study area. Those stops that do include seating are placed in such a manner as to interfere with the pedestrian through-way. The Master Plan has designed bus stops to support a heated shelter, seating, waste and recycling receptacles, and bike parking. Calgary Transit has a corporate policy which outlines the appropriate locations and design of bus stop amenities within their system.

The typical bus stops have been designed in the travel lane to support the efficient and reliable movement of transit service with minimal disruption to run times, the most critical component of any efficient bus service. Timing points have been allocated curb side waiting areas to minimize disruptions to traffic. This will support enhanced pedestrian comfort and mobility while transit users are walking to and from stops. Space has been reserved in the design for amenities including covered seating, waste and recycling receptacles, bike racks, pedestrian wayfinding and lighting while preserving access for the bus passengers.

Design Intent:

- Consolidated bus stop locations to improve level of service offered.
- Paving material and amenities consistent at all bus stop locations to make easily identifiable.
- Space preserved for high quality amenities.



4.2.6 Lighting Elements

Street Lights

Modern street lighting with banners can be located within the urban zone from Crowchild Trail SW to 19th Street SW. The materiality, lamp design, and banner signage will aid in updating the Marda Loop Main Street and enhancing its desirability for future redevelopment. The banners can help establish a unified theme for Marda Loop, as well as provide opportunities to advertise various community events, such as Marda Gras and the Farmers Market. Standard street lights without banners should be located within the residential zone. The materiality and lamp design can aid in updating the less urban streets, establishing a unified character that permeates out of the urban zone throughout the remainder of the main street, while also providing the opportunity for flower pots.



Community Lighting Elements



Pedestrian Street Lights

Pedestrian scale street lights may be used in the urban zone from Crowchild Trail SW to 19th Street SW and the SWBRT station. The pedestrian lighting can be used to define the key pedestrian areas in the urban zone and work to enhance the comfort and safety for users at night, as well as to create an aesthetically pleasing nightscape that aims to link the spaces along the corridor together. This becomes especially important as the tree canopy is introduced and the only public light is oriented towards the roadway. The use of pedestrian scale lighting can increase the comfort and mobility and extend the times people feel comfortable in the public space.

Pedestrian Canopy Lighting

Pedestrian canopy street lights may be located on 21st Street SW within the festival street. These lights will extend from the icon features on the east to the stage on the west creating a defined pedestrian scale plaza that can operate year-round.



Pedestrian Canopy Lighting

4.2.7 Landscaping

Urban Street Trees

Trees in the urban zone should be planted in soil trenches or a modular tree cell system below the hardscape. A series of rectangular tree grates over a continuous tree trench can be located at the upgraded bus stop locations; these grates will help distinguish the bus stop zone and add variety to the overall main street. Having a larger, continuous tree pit also helps to ensure healthy urban growing conditions with less soil compaction.



Boulevard Planting

Boulevard planting should be located along the main street in the residential zone. The planted boulevards beautify the main street and assist in controlling stormwater runoff. They provide separation between the vehicular thoroughfare and sidewalks. The boulevards may consist of planted trees with a combination of lawn and/or bioswales.

4.2.8 Curb Bumpout Planting

Poured in place concrete planters in the urban zone can be located within the area created by the corner bump-outs. The planters will contribute to the aesthetics of the main street and enhance the overall planting environment. In addition to planting various tree species, shrubs, and perennials, the planter can capture and temporarily store stormwater, and also provide additional seating. The planters provide opportunities to plant hardy native species for year-round interest. In order to have a main street full of healthy plants, a variety of species should be considered.



4.2.9 Site Furniture

Attractive, high-quality, well-maintained street furniture can greatly enhance the pedestrian experience along public streets. Seating provides an extra space to catch-up with a neighbour, tie your shoe while on a jog, or take a moment to adjust the stroller. Bike racks make it possible to visit a favorite retailer without the hassle of parking, while trash and recycling receptacles help keep streets free of waste.

New street furniture, including planter-integrated benches, are proposed at various areas along the main street. By integrating the benches with landscaping and centrally locating them, it is anticipated that this solution will create efficiencies in the location of seating options and allow for adaptability in the future.

4.2.10 Signage + Wayfinding

Various signage and wayfinding features can be added throughout the Marda Loop Main Street to direct pedestrians and drivers to key locations in Marda Loop. The signage may be made up of directional poles, public parking signs, business signs, and pedestrian-scaled maps and can be constructed using a selection of materials from the streetscape palette. Wayfinding should include signage to help locate parking, plazas and open space, community landmarks, and transit.

4.2.11 Seasonal Parklets

Parklets are either temporary or permanent, spaces within the flex-zones that offer a variety of public realm and programming opportunities. From temporary patios run by neighboring restaurants to landscaping and public seating areas, parklets provide extra space for pedestrians to linger and enjoy the neighbourhood.

The identified locations of the parklets may vary as they will support adjacent businesses and provide opportunities for community gathering space. They can provide additional seating and may be located in the same location year-round, seasonally, or move locations throughout the year.



City of Calgary Parklet Pilot Project 2018

4.3 Future Development Guidelines

The Master Plan is designed to respond to the ever changing aspects of a streetscape and for future private developments to integrate into the design. To that end the options provided below present interpretations of the Master Plan for new developments within the Main Street study area. These options show how the pedestrian clear zone and the flex zones can be interpreted to support both the transportation of people and create nodes within the streetscape to stop and linger within the area.



Design Intent:

- Pedestrian Clear Zone (Blue) - The pedestrian clear zone represents a 2.5m zone free of conflicts for pedestrian movement
- Flex Zone (Green) - Variable zone that serves the various options for development and mobility.



Figure 27 - Development Integration C - Urban Streetscape with integrated seating option in the parking stall



Figure 28 - Development Integration D - Typical Residential Boulevard Treatment

Implementation

Section 5

"The successful implementation of the Streetscape master plan will depend on a strategic and achievable phasing plan".



5.1 Phasing

Delivering on a cohesive and comprehensive vision for Marda Loop is a costly affair that is unlikely to be provided in one capital budget. The successful implementation of the Master Plan will depend on a strategic and achievable phasing plan. The phasing plan is not a prescriptive component of the Master Plan, but provides an important framework in the identification of priorities in determining funding and delivery of the improved public realm. Regardless of the elements of the Master Plan first pursued, detailed design of the main street will lead to updates in the design as more information is understood. Additional consultation with the communities and businesses will likely occur to ensure that changes or construction timings enable them to thrive throughout. This is subject to change and will be further refined at the detailed design phase.

5.2 Phasing Plan

Each phase of this project is meant to deliver on those areas of the study area that are most in need and most able to capitalize on the investments outlined in the Master Plan.



Figure 29 - Marda Loop Main Street Phasing Plan

5.2.1 Phase 1

Phase 1 extends from Crowchild Trail SW to 19th Street SW on 33rd Avenue SW. This area has experienced significant redevelopment with construction likely to continue for both development and/or utilities, in the coming years. This phase encompasses the public areas with the current highest usage and density which is defined as a current 'main street'. The delivery of the vision within this area will support the current businesses and expanding population of residents. All, or a portion, of this phase will provide a cohesive public environment to support the Marda Loop area as a destination and provide the catalyst components for future phases. This phase additionally responds to Council direction for improved access to the SWBRT station and serves to highlight the changing balance of transportation choices that are a component in establishing a main street. The boundaries of Phase 1 include the two highest use intersections identified as challenging by the public at 20th and 22nd Streets SW. Improvements to these intersections will support movements by all modes throughout the area. Phase 1 may include a portion of the following specialty areas:

1. The BRT Plaza, which leverages the investment by the City in the SWBRT and provides a community feature to support its use.
2. The neighborhood park , which will be timed to follow the completed adjacent condominium development and provide a natural public gathering space that is otherwise vacant in the area.
3. Gateway major feature, which will serve to update the existing gateway feature and define the cohesive boundary for the Marda Loop communities.
4. The Festival Street, which will provide the critical component of a public gathering space within the main street. Throughout public consultation and the Master Plan development it was identified that this area required the addition of public space and including this in Phase 1 will deliver on that need.

Design highlights in Phase 1:

- Cohesive public realm where the people and businesses are already active.
- Consistent pedestrian space which supports current businesses and addresses the issues at the intersections of 20th and 22nd Streets SW.
- Improvements to landscaping and delivering public trees.
- Provision of public gathering spaces within the main street in the BRT plaza, festival street, and neighborhood park.
- Leverage of the City investment in Southwest Bus Rapid Transit.
- Improved lane access for goods movement

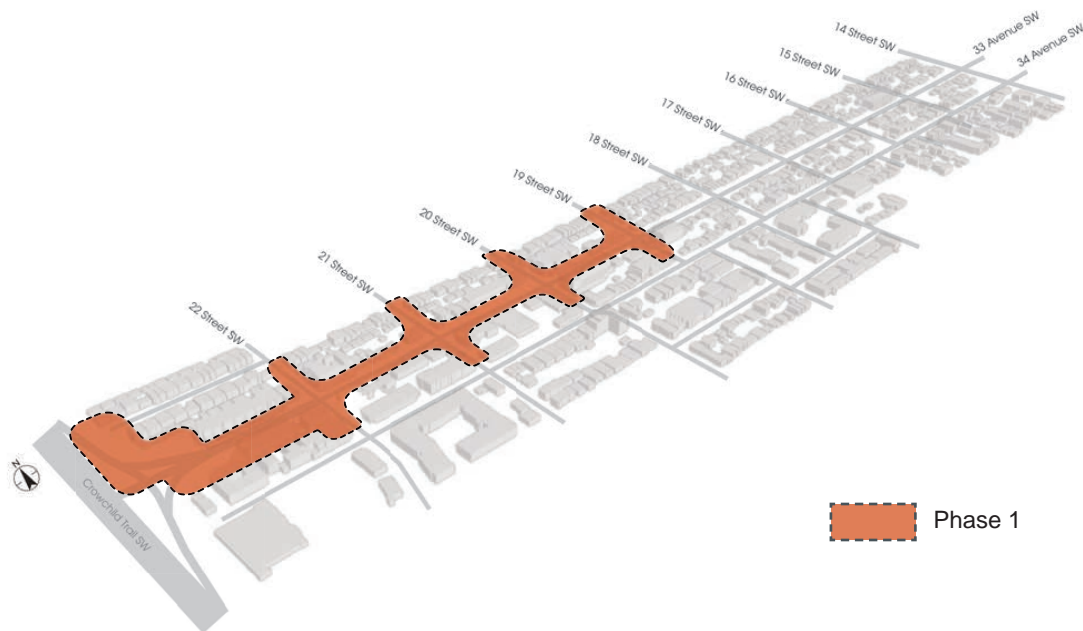


Figure 30 - Marda Loop Main Street Phase 1

5.2.2 Phase 2

Phase 2 extends between Crowchild Trail SW and 20th Street SW on 34th Avenue SW. This phase aims to complete the establishment of the Master Plan within the urban zone, reflecting the investments made on 33rd Avenue SW. This phase recognizes that the ongoing development on 34th Avenue SW is like that of 33rd Avenue SW while travel patterns see higher activity on 33rd Avenue SW. Phase 2 completes access to the urban plaza located at 33rd Avenue SW and 21st Street SW cementing its position as the community core. This phase will build on the higher density and ongoing development within the mixed-use zones and integrating with the land use component of the Main Streets program. It is recommended that Phase 2 include the two parklets, which will complete the establishment of the flex zones and residential/business. The timing of this enables the community groups and the City to establish a process for maintenance and operations of these parklets within the Marda Loop area.

Design highlights in Phase 2:

- Completion of the urban zone.
- Addresses identified problem intersections of 34th Avenue SW at 22nd Street SW and 20th Street SW
- Connections to Garrison Woods community and associated retail plaza.
- Delivery of parklets.



Figure 31 - Marda Loop Main Street Phase 2

5.2.3 Phase 3

Phase 3 includes 33rd Avenue SW between 19th and 17th Streets SW, 34th Avenue SW between 20th and 18th Streets SW and the intersections with 14th Street SW on both avenues. This phase anticipates the extension of urban zone development in both density and redevelopment into the residential zone. Coordination with that development and continuity of the residential characteristics within the study area will support the growing vibrancy of the Marda Loop Main Street. The timing of this phase will enable upcoming developments to deliver on components of the Master Plan through the development process and allow the density to increase sufficiently to justify the investments in this area.

Design highlights in Phase 3:

- Secondary gateway feature expanding the cohesive feel of the Marda Loop Main Street.
- Offset intersection at 18th Street SW and 34th Avenue SW to improve navigation through a complex intersection.
- Addresses identified problem intersection of 33th Avenue SW at 19nd Street SW
- Support for increasing density.
- Leverage role of development community.



Figure 32 - Marda Loop Main Street Phase 3

5.2.4 Phase 4

The extents of Phase 4 complete the study area. This phase is coupled with land use re-zoning and the development of a new scale and mix of buildings in the Marda Loop area. This phase will leverage the role of the development community in delivering on the vision for Marda Loop. While the timing of this phase is last in the project implementation, it responds to the expectations of density and current residential role in the neighborhood. This phase will be critical to establishing a cohesive main street.

Design highlights in Phase 4:

- Completion of the Master Plan.
- Offset intersection at 15th Street SW 34th Avenue SW to improve navigation through a complex intersection.

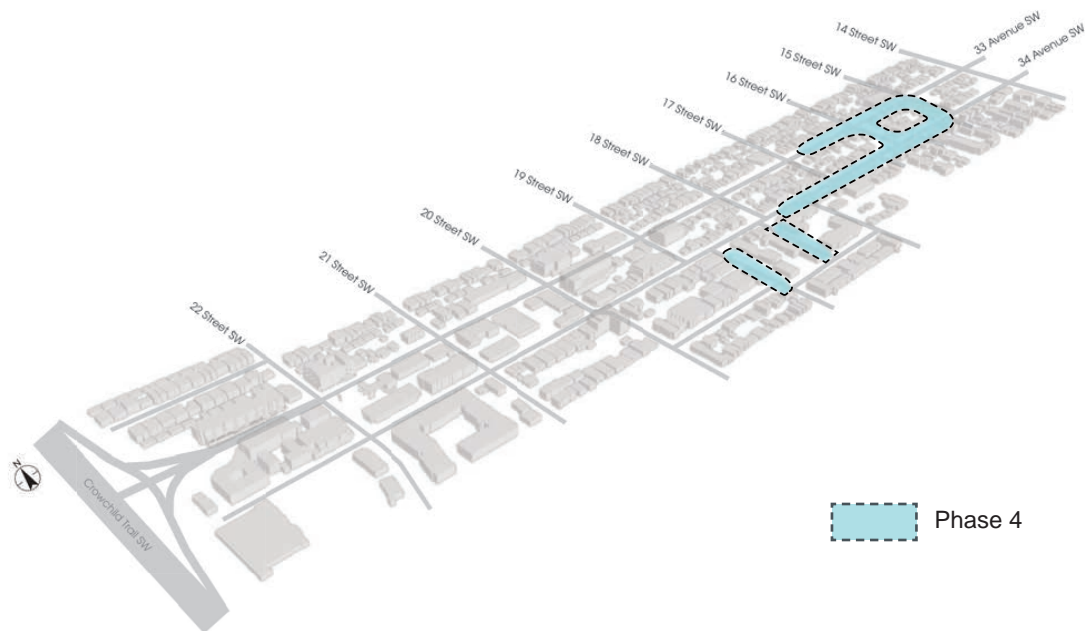


Figure 33 - Marda Loop Main Street Phase 4

5.3 Estimated Costing

The costing presented here is based on comparable costs from other projects and is only indicative of the probable cost based on the current understanding of both the design and complications. These costs are general only and will be refined through the detailed design process.

Phase 1	\$8.5
Phase 2	\$3.0
Phase 3	\$6.3
Phase 4	\$6.6
Sub-Total	\$24.5
Total with industry standard 25% Contingency	\$31.6

Table 1 - Estimated Costing

5.4 Outstanding Challenges + Design Opportunities

It is not possible during the development of a Master Plan to identify and mitigate all concerns within the public realm. The following is a list of outstanding issues that will need to be addressed during detailed design. As with any project the limitations of the study area mean that the bridge over Crowchild Trail SW has not been examined to provide a recommendation, likewise with the implications of the on/off ramps. Similarly, examinations of Storm Water Management and solutions using innovative design of the landscaping provide an opportunity for improvement to the public space and infrastructure operations. This final recommendation for parking, cycling infrastructure depends heavily on the time of implementation based on surrounding connections and traffic volumes on 34th Avenue SW. Detailed design will be critical to determining the impacts of shallow and deep utilities, it is expected this examination will present both issues and opportunities as facilities require upgrading.

5.5 Next Steps

With the completion of the Master Plan, the project will move into detailed design. As detailed design is completed an increased understanding of all components of the project will be further explored. This next level of detail will improve the cost estimates and enable components of the project to continue to construction when capital funding is secured.

Conclusion

Section 6

"The Streetscape master plan for Marda Loop provides public spaces of various scales and sizes, to serve the vibrant urban culture that the public stated they desire".



The Marda Loop area has been a destination in Calgary for over a century with key community assets, like the Marda theatre, providing the node around which public life centered. More recently, the community has seen pressures of intensification and densification in both the residential and urban main street. The growth has placed pressure on the public street, built to older, less pedestrian friendly standards, which needs to be addressed. The communities, while created by history, are not defined by it, and so the Master Plan speaks directly to what the future of the Marda Loop area could be.

The Master Plan for the Marda Loop area provides public spaces and landscape improvements of various scales and sizes, to serve the vibrant urban culture that the public stated they desire. The festival street serves as a large central gathering space, which can support regular events and augment existing ones. The neighbourhood park serves the desire of some users to relax in nature while living in an urban place. Parklets provide a flexible public space to the main street that support a vibrant public realm and adjacent businesses.

This is achieved through balancing all modes, providing consistent reliable treatments which can interact seamlessly. Components such as curb extensions or pedestrian lighting will provide significant measurable increases to the pedestrian experience and therefore improve main street

vitality. The integration with the Southwest Bus Rapid Transit and Calgary Transit service will support a built form that provides more mobility options.

While many components of this Master Plan will be refined during the detailed design and eventual construction phases, this concept provides the outline and form of a vibrant, intense, public realm supporting the mixture of private uses along the Marda Loop Main Street.



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Appendix A

Technical Information

- A1** Engagement Summary from PUD report
- A2** Utilities Scan
- A3** Results from Transit Study
- A4** Results from Cycling Study
- A5** Alternative Design Considerations for SWBRT Plaza
- A6** Results from Parking Study
- A7** Open Space Connections

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Appendix A

Technical Information

A1 Engagement Summary from PUD report

PHASE 1 - DISCOVERY

FEBRUARY 26 2018

Location: Marda Loop Community Hall

The discovery phase of engagement focused on shaping the vision for 33rd and 34th Avenues SW and on gathering feedback on design elements to be considered. To help develop a vision, participants were asked to respond to the question: *“What makes Marda Loop, Marda Loop?”*

It was important to understand the views and interests of residents, businesses, pedestrians, commuter’s and shoppers, in relation to the existing 33rd and 34th Avenues streetscape and what it may look like in the future.

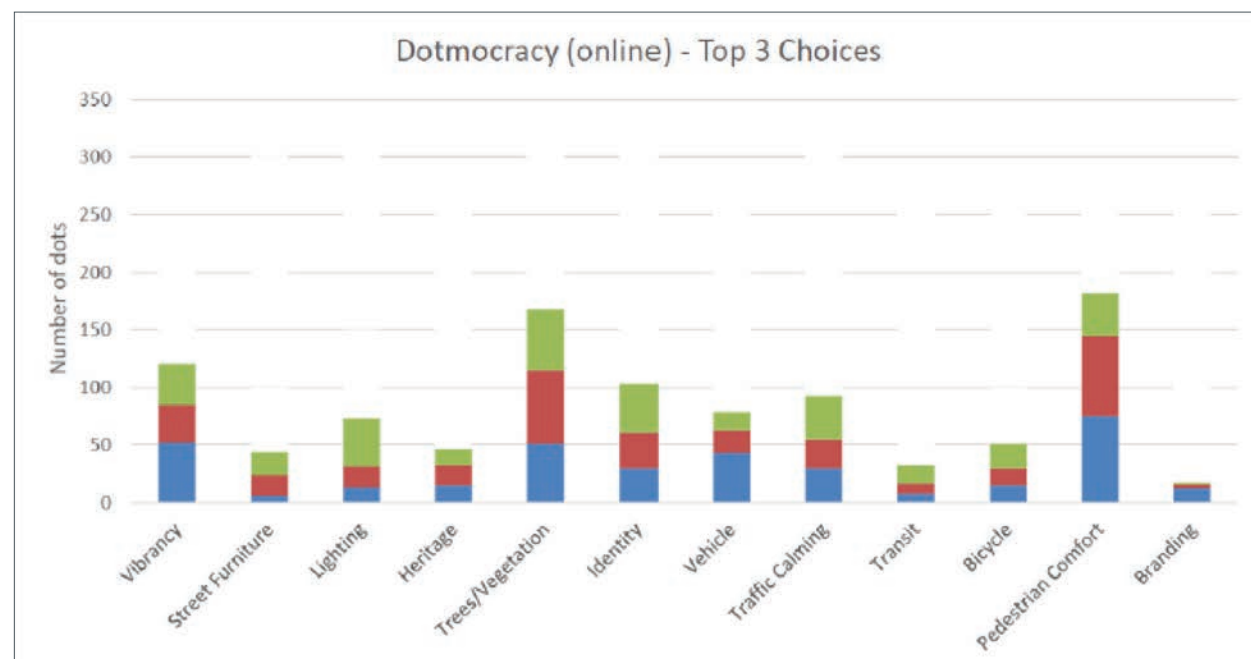
Members of the public were also asked how they would like to be engaged in the future and they indicated larger format/drop in style events were their preferences.

On-street parking was identified as communities biggest concern (identified by verbatim comments) whereas pedestrian comfort and trees/vegetation were identified as the most important elements to the community. The results of the dotmocracy exercise are shown below.

The full results can be found online at:

www.engage.calgary.ca/33Ave

■ 1st preference
 ■ 2nd preference
 ■ 3rd preference



Appendix A

Technical Information

A1 Engagement Summary from PUD report

PHASE 2 - EXPLORE

MAY 8th, 10th, 12th 2018

Location: Storefront along 33rd Avenue SW

Streetscape Design Priorities

The streetscape design priorities were developed using a combination of information from the engagement process and the technical experience of the design team.

The streetscapes priorities allowed the design team to examine how the upgraded street design would best balance issues and opportunities with community needs and guide us moving forward.

- **Pedestrian Comfort and Enhanced Landscape:** Establishing a vibrant streetscape through enhanced landscaping, repeated elements and design styles.
- **Parking:** Establishing clearly defined parking zones to help prioritize the parking within the corridor.
- **Public Transit and Automobiles:** Upgrades to public transit stops and locations are being explored to improve the riders' experience. Travel lanes will be

maintained with consistent lane width to create a consistent travel experience throughout the corridor.

- **Bicycles:** Bicycles amenities will be considered; however, the pedestrian and parking experience will be a priority as bicycle amenities are explored.
- **Good/Services:** Large vehicle pick up and drop up and drop off will be facilitated through lane access not a curb side.

At the storefront stakeholders could use a iPad or their mobile device to complete the survey on the Engage web portal or complete an identical paper survey. The project team was looking for feedback on potential options for flex zone spaces and when parking was an issue. Another question asked was if the community would accept a reduced sidewalk width if it meant providing boulevard trees. We also asked stakeholders to consider Urban and Residential zones which included travel lanes, pedestrian and flex zones spaces, and potential locations for urban plazas.

The full results can be found online at:
www.engage.calgary.ca/33Ave

Appendix A

Technical Information

A1 Engagement Summary from PUD report

PHASE 3 - REVEAL

SEPTEMBER 22nd, 25th 2018 & NOVEMBER 2018

Location: Storefront along 34th Avenue SW

Phase three of public engagement focused on the presentation of the streetscape master plan concept for 33rd and 34th Avenue SW in previous project phases, we explored values and design priorities with community members.

The results of this engagement, alongside technical considerations, was the streetscape concept design. The community was presented with the concept and it was communicated how the project team, with input from the community members, reached its design conclusions.

We asked the community for input on the 33rd and 34th Avenues SW streetscape master plan concept and asked: *"What is your impression of the streetscape master plan concept?"*

The full results can be found online at:

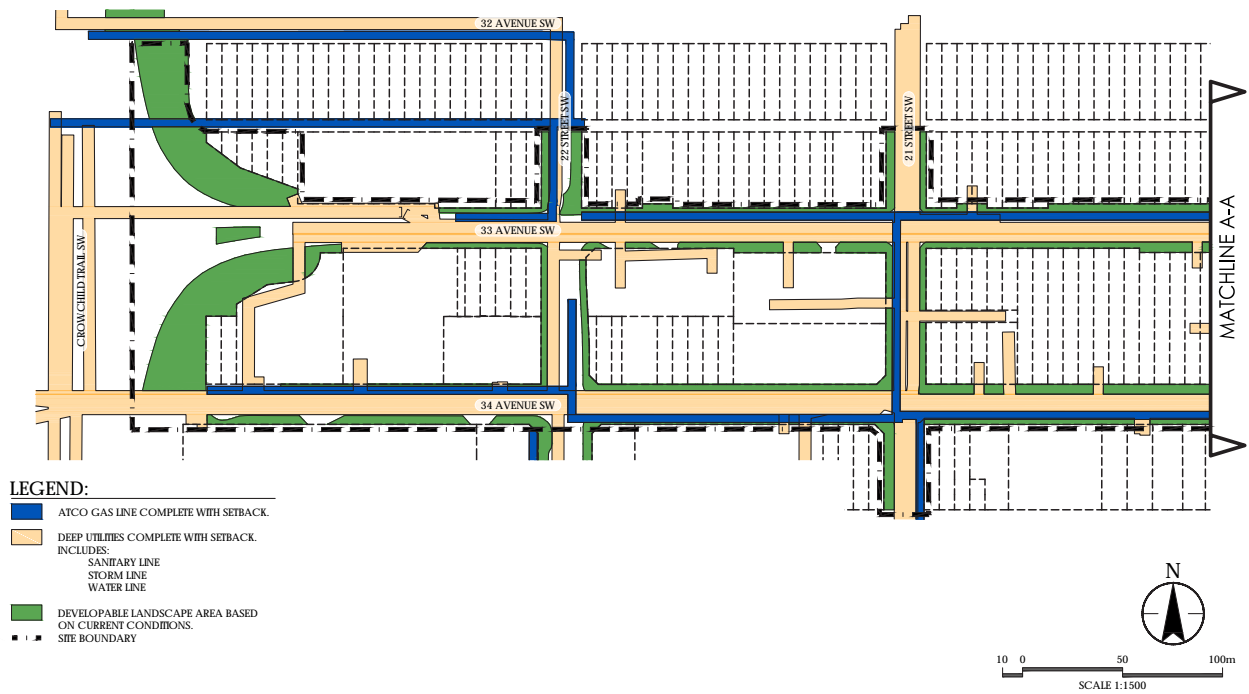
www.engage.calgary.ca/33Ave

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Appendix A

Technical Information

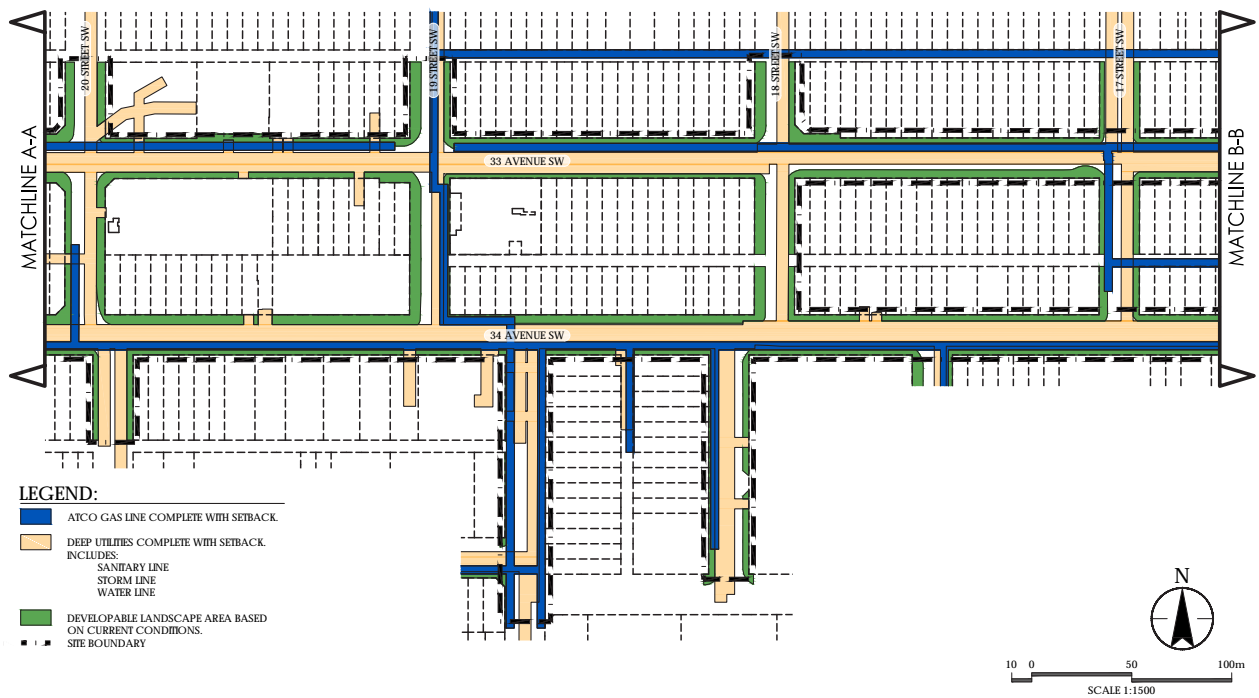
A2 Utilities Scan



Appendix A

Technical Information

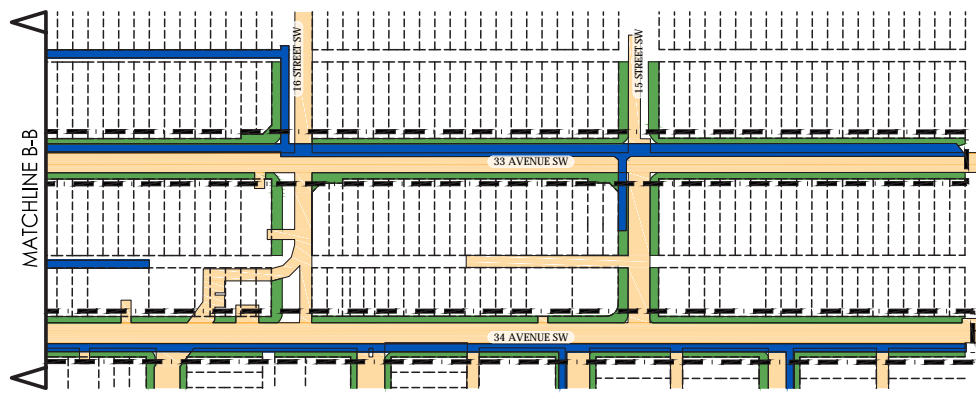
A2 Utilities Scan







Appendix A

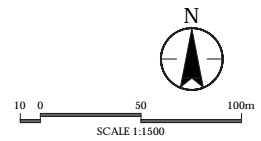
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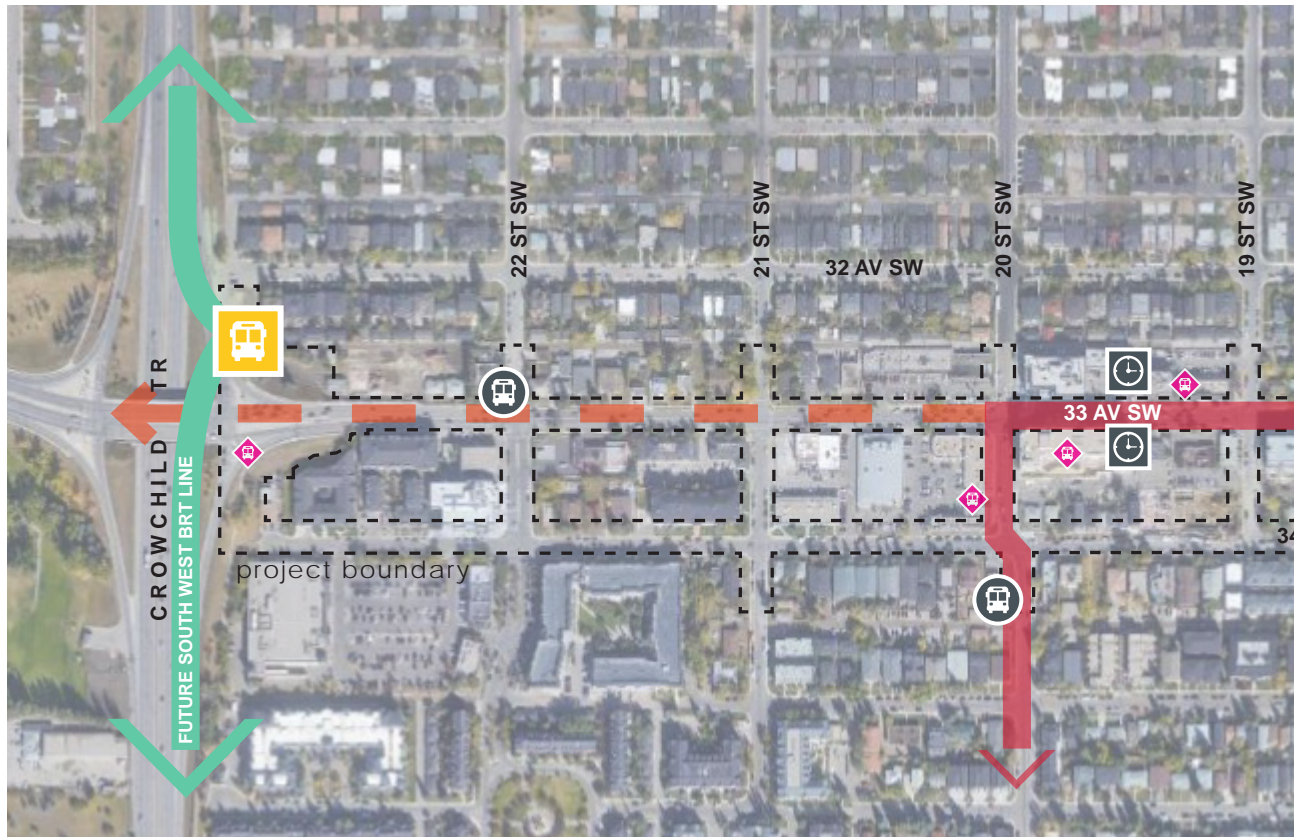
A2 Utilities Scan



LEGEND:

-  ATCO GAS LINE COMPLETE WITH SETBACK.
-  DEEP UTILITIES COMPLETE WITH SETBACK.
INCLUDES:
 - SANITARY LINE
 - STORM LINE
 - WATER LINE
-  DEVELOPABLE LANDSCAPE AREA BASED ON CURRENT CONDITIONS.
-  SITE BOUNDARY





Legend



SWBRT STOP (FALL 2019)



PROPOSED BUS STOP LOCATIONS



PROPOSED BUS STOPS AND TIMING POINTS



EXISTING BUS STOPS TO BE RELOCATED



EXISTING TRANSIT ROUTES



SWBRT ROUTE (FALL 2019)



FUTURE PLANNED TRANSIT CONNECTION

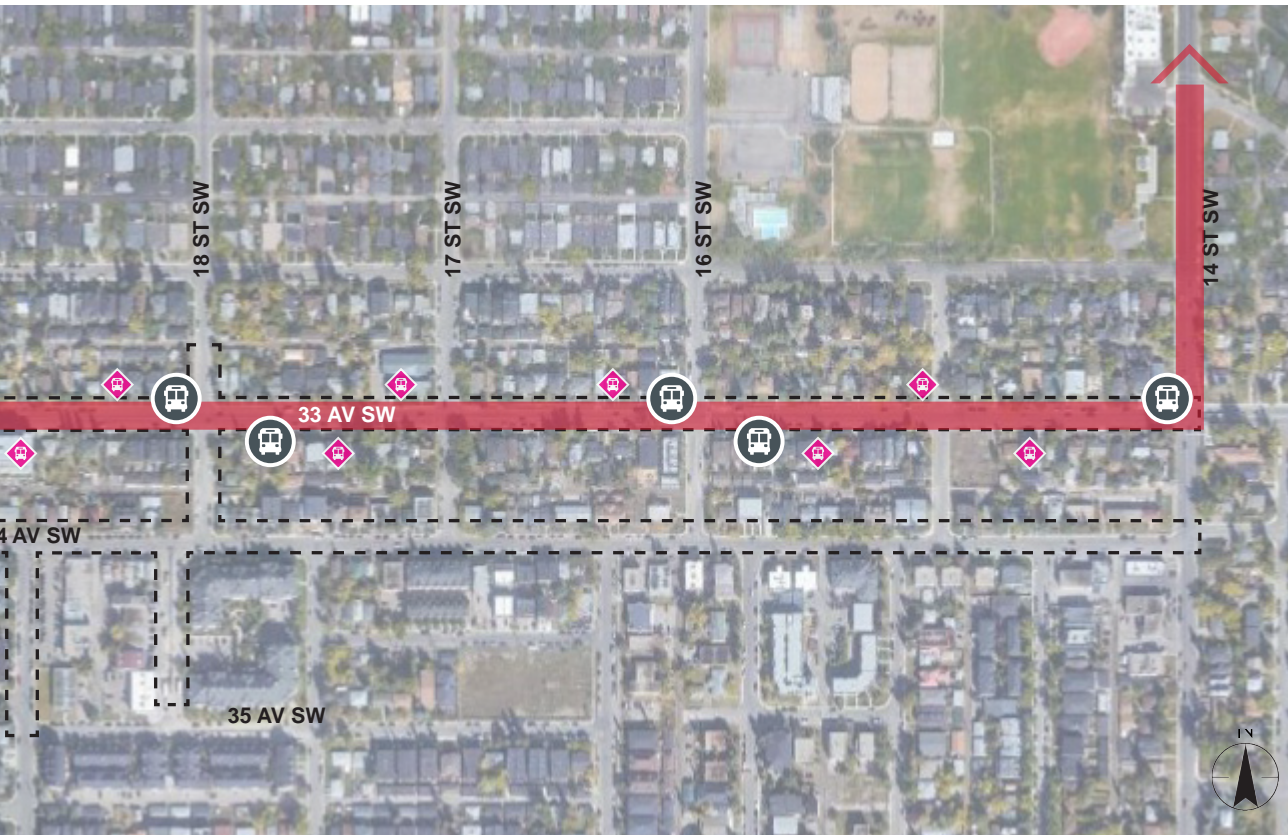


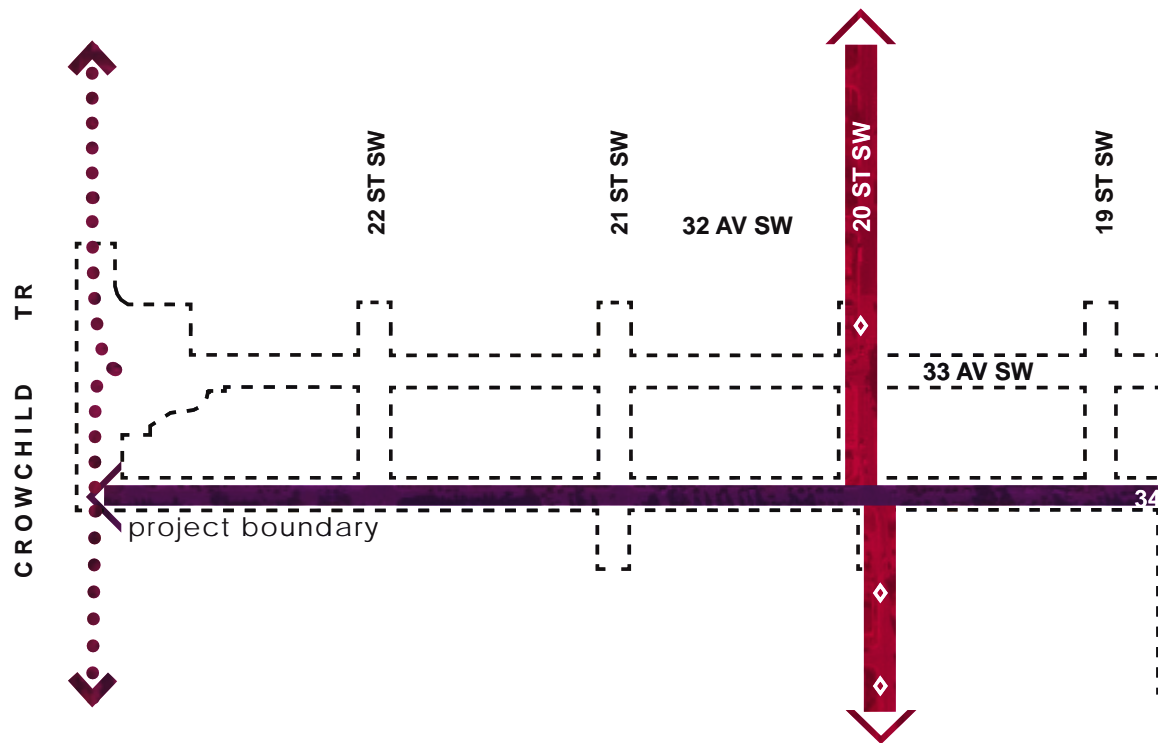
PROJECT BOUNDARY

Appendix A





Technical Information

A3 Results from Transit Study





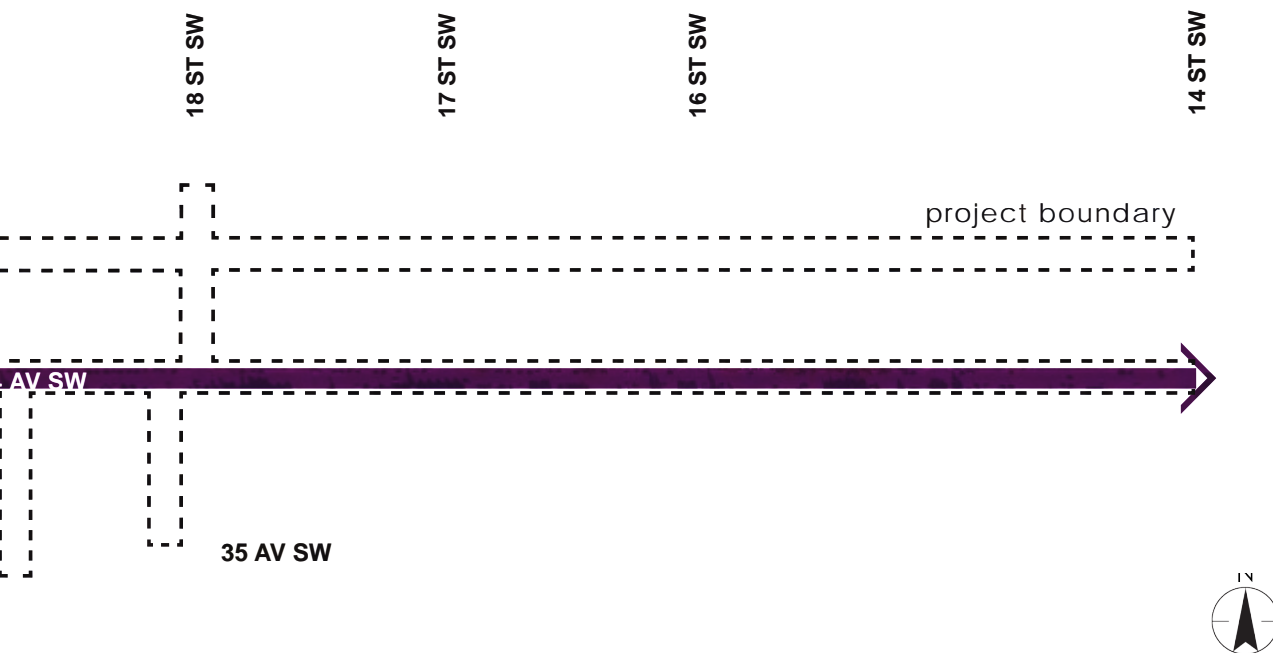
Legend

-  EXISTING BICYCLE LANES
-  EXISTING SIGNED BICYCLE ROUTE
-  EXISTING MULTI-USE PATHWAY
-  PROJECT BOUNDARY

Appendix A

Technical Information

A4 Results from Cycling Study



Appendix A

Technical Information

A4 Results from Cycling Study

CYCLING INFRASTRUCTURE OPTIONS



34th Avenue SW Cycling Track with 1-Way

Description: Bi-directional protected cycling facility on the south side of 34th Avenue SW with 2 parking lanes and a 1-way travel lane. The direction of that lane to be determined during detailed design.

Key Advantages

- High level of protection for cyclists; and
- Protection of parking supply.

Key Disadvantages

- Change to access and travel patterns for vehicles; and
- Would likely require the removal of the medians on 34th Avenue SW at 18th Street SW.



34th Avenue SW Cycling Track with 2-Way Automobile Travel

Description: Bi-directional protected cycling facility on the south side of 34th Avenue SW with 2 travel lanes and 1 parking lane, against the north curb.

Key Advantages

- High level of protection for cyclists; and
- Minimal impact on vehicle travel patterns.

Key Disadvantages

- Loss of parking; and
- Signalization of intersections anticipated and will likely be costly.



34th Avenue SW Shared Roadway/Lanes with 2-way Mixed Traffic

Description: Traffic volumes reduced through traffic diversion to recommended levels enabling a shared cycling/traffic lane. Location of traffic diversion to be determined at detailed design

Key Advantages

- High level of protection for cyclists;
- Protection of parking supply; and
- Potential advantage for pedestrians with lower volumes and speeds for traffic.

Key Disadvantages

- Significant impact to vehicle travel patterns to reduce volumes.

Appendix A

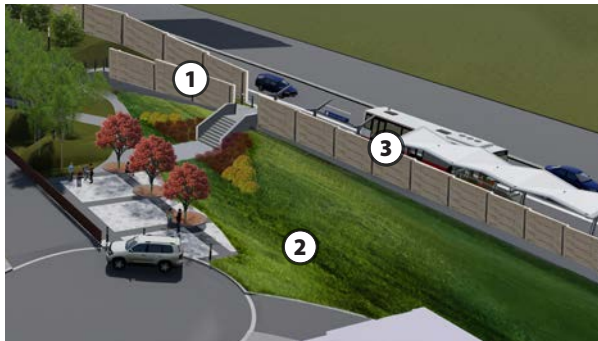
Technical Information

A5 Alternative Design Considerations for the SWBRT Plaza

The South West Bus Rapid Transit (SWBRT) station located at west end of 32nd AV SW is a key opportunity for integration and community development as is discussed in detail in Section 4.1.2 SWBRT Plaza. The station is beyond the scope of the Master Plan, however; components of the station directly impact the design and integration with the plaza. Two of the major components include: the retaining wall & sound barrier. At the request of the SWBRT team two alternative concepts have been explored based on the integration of the above noted major design components.

The alternative designs presented ultimately impact the conceptual design presented in this Master Plan. Should either of these options be selected the renderings presented below are not reflective of a finalized conceptual design, they are only meant to identify potential design opportunities for integration with the SWBRT station. Further design interventions will be explored concurrent to detail design.

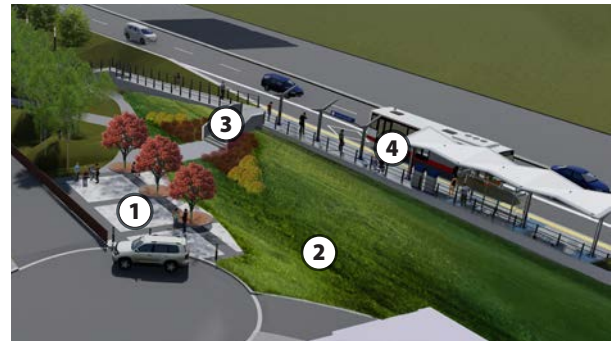
Requirement for sound barrier wall



Impacts of design alternative 1

- ① Opportunity to use the sound barrier as a canvas for mural or other feature.
- ② Open lawn provides opportunity for large scale naturalized plantings.
- ③ Sound barrier separates the SWBRT from the community and creates a loss of clear sight-lines to the station. This results in a need for a more comprehensive design strategy with Crime Prevention Through Environment Design (CEPTD) considerations at the forefront.

Retaining wall replaced with natural berm

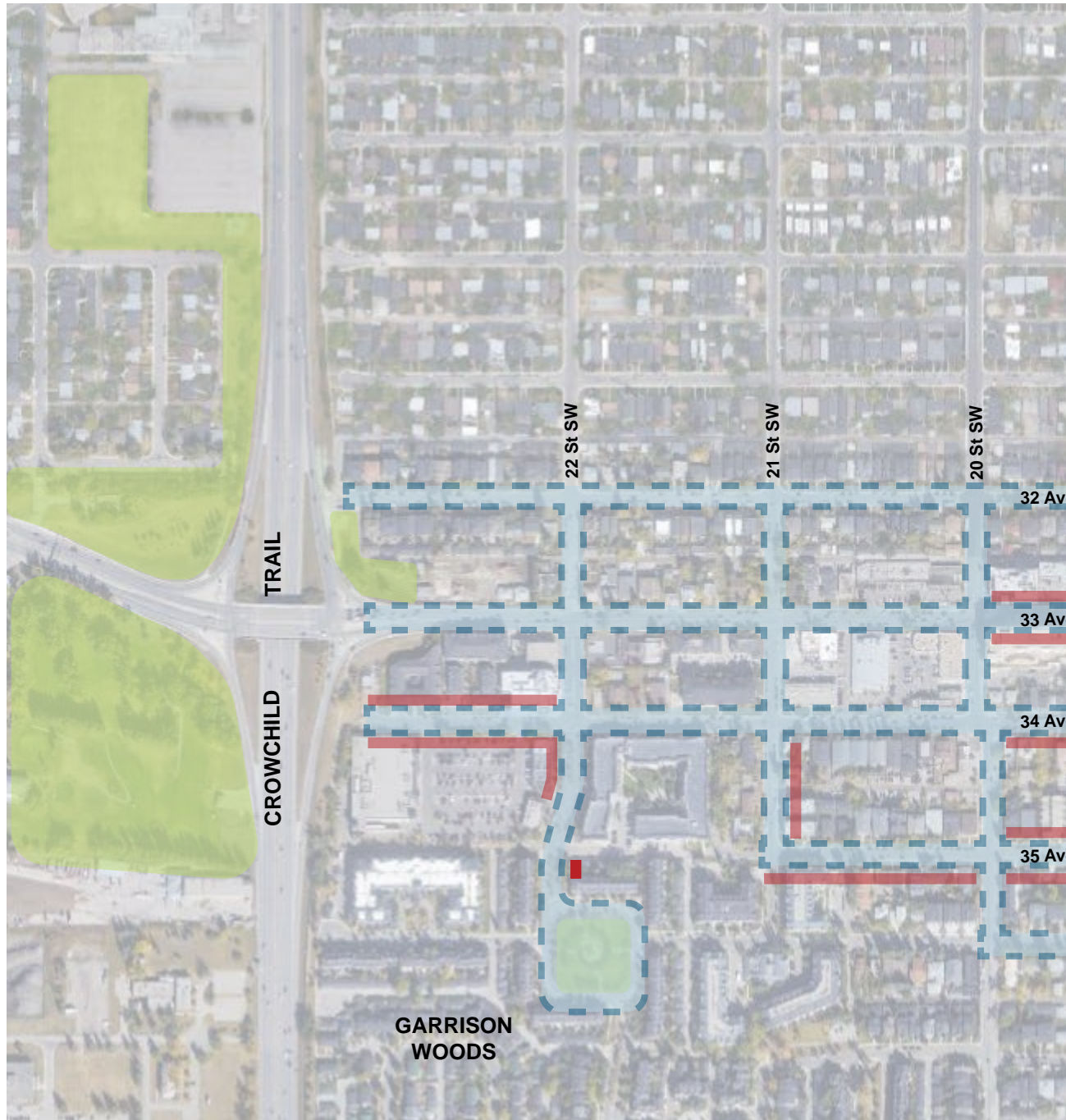


Impacts of design alternative 2

- ① Plaza as a transitional entrance space, as opposed to a public gathering space;
- ② Landscaping that can be integrated into the natural environment
- ③ Stairs to improve access between the street and station
- ④ Sight-lines that can be maintained between the transit station and neighbourhood.

Legend


- OVER UTILIZATION
- PARKING STUDY BOUNDARY



A6 Results from Parking Study



Legend

 OPEN SPACES



A7 Open Space Connections



March 2019

MAIN STREETS PROGRAM

Marda Loop 33rd & 34th Avenue
SW Streetscape Master Plan



