IMAGINE IDYLWYLD

PHASE 4 CONCEPT DESIGN REPORT

May 2018







Imagine Idylwyld: Concept Design Report

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EXECUTIVE SUMMARY













Figure 1.1 Imagine Idylwyld Concept Design

"IDYLWYLD DRIVE IS A SIGNATURE GATEWAY INTO THE CITY CENTRE; A MODERN GRAND AVENUE THAT CONNECTS PEOPLE AND PLACES IN A COMPACT, MIXED USE URBAN ENVIRONMENT THAT SUPPORTS DAILY LIFE IN SASKATOON." - IMAGINE IDYLWYLD VISION STATEMENT

EXECUTIVE SUMMARY

PROJECT PURPOSE

Imagine Idylwyld is a design initiative by the City of Saskatoon to develop a new vision and conceptual plan to improve the function, safety, connectivity and quality of the roadway and public realm along Idylwyld Drive, between 20th Street and 25th Street East.

PURPOSE OF THIS REPORT

This report summarizes the findings of the final phase of the *Imagine IdyIwyId* initiative; the development of the final concept design as well as public and stakeholder engagement. This document comprises part of a suite of documents that were produced during the course of this project, and should be read alongside the *Issues and Opportunities Report (May 2017)*, and the *Corridor Alternatives Report (July 2017)*.

PREFERRED ALTERNATIVE

The process of developing alternatives began in Phase 3 with the creation of an Initial Concept Layout based on the vision, issues and opportunities, and design parameters set out in earlier phases. With the Initial Concept Layout created, opportunities for alternative vehicle lane function were identified at three intersections: 20th Street, 22nd Street, and 24th Street. Two alternative bicycle accommodation schemes were also identified.

The proposed alternatives were tested through an online survey and with an engagement booth held at the Saskatoon Farmer's Market in early June 2017. The results from the survey indicated public support was generally in favour of Option A at the whole corridor scale; at the intersection level it was clear that minimising delay to motorists was the highest priority for the public.

Recommendation for Preferred Alternative

The public provided a clear direction that Idylwyld Drive should be designed to flow as smoothly as possible for the most number of drivers. This goal is achievable at the same time as achieving the desire to support all modes of travel and enable redevelopment opportunities. The results of the survey support the development of a hybrid preferred alternative, including: a southbound right turn lane at 20th Street, a single northbound left-turn bay at 22nd Street, no northbound left turns from Idylwyld Drive at 24th Street, and continuous bicycle paths separate from vehicles.

CONCEPT DESIGN

The recommended layout, derived through the development of alternatives is a hybrid of tested options. The preferred design minimizes travel time for the most drivers at the same time as achieving the desire to support all modes of travel and enable redevelopment opportunities. The concept design is compatible with the intended evolution of the land use along ldylwyld Drive and adjacent neighbourhoods, and enables safer connections for people riding bicycles or walking, including better access to the proposed Bus Rapid Transit (BRT) station near 22nd Street.

NEXT STEPS

In late 2018 or early 2019, the Major Transportation Funding Plan, including a list of prioritized projects will be provided to City Council for discussion. The implementation timing of the improvements to the Idylwyld corridor will be included in this future report.

PROJECT TIMELINE

This report marks the completion of Phase 04 of Imagine Idylwyld.

| PHASE 01 | PHASE 02 | PHASE 03 | PHASE 04 WE |
|------------|------------|----------------|-------------------------|
| Background | Corridor | Development of | Concept Streetscape ARE |
| Review | Assessment | Alternatives | Design |



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INTRODUCTION











--- Study Area

---- Area of Impact

Block





Figure 2.1 Imagine Idylwyld Study Area and Area of Impact



Imagine Idylwyld is a City of Saskatoon planning and design initiative for Idylwyld Drive. The purpose of the project is to develop a new vision and conceptual plan to improve the function, safety, connectivity and quality of the roadway and public realm along Idylwyld Drive, between 20th Street and 25th Street East.

Idylwyld Drive is, and will continue to be, a major northsouth arterial corridor in Saskatoon and a key gateway into the City Centre for motorized vehicles. However, its current configuration poses a challenging environment for pedestrians to cross, dividing surrounding neighbourhoods and districts. Improvements to Idylwyld Drive will help link the adjacent neighbourhoods and the business districts, making it easier for people to get around the City Centre and help define the street as a gateway by cultivating a sense of arrival.

PURPOSE OF THIS REPORT

This report summarizes the findings of the final phase of the *Imagine Idylwyld* initiative; the development of the final concept design as well as public and stakeholder engagement. This document comprises part of a suite of documents that were produced during the course of this project, and should be read alongside the *Issues* and Opportunities Report (May 2017), and the Corridor Alternatives Report (July 2017).

PROJECT BACKGROUND AND CONTEXT

Idylwyld Drive serves as a key north-south travel corridor through Saskatoon and connection to the City Centre.

Further, it connects with 22nd Street and 25th Street East, both east-west major arterial roadways. The project area represents a dynamic zone bordered by four neighbourhoods: Riversdale and Caswell Hill to the west, and Downtown and Central Industrial to the east. The area also includes the Riversdale Business Improvement District (BID) and Downtown Saskatoon BID.

In the last four years, Idylwyld Drive has been affected by two major infrastructure projects:

- The opening of Circle Drive South significantly decreased traffic volumes, composition, and patterns on Idylwyld Drive. Moreover, the City removed Idylwyld Drive and 22nd Street from its Truck Routes, dramatically decreasing the number of heavy trucks with trailers using Idylwyld Drive.
- The extension of 25th Street East, between 1st Avenue and Idylwyld Drive concentrated traffic to and from the University Bridge at the intersection of 25th Street East and Idylwyld Drive.

These changed traffic conditions above, along with the City's new policies to guide the growth and development of the city to 400,000 people, are driving the need to revisit the vision and character of the corridor. The *Imagine Idylwyld* project will examine existing and future transportation movement patterns, current and future zoning and land uses, and existing and proposed built forms to gain an understanding of Idylwyld Drive's role as a major urban arterial roadway - now and in the future.

PROJECT TIMELINE



INTRODUCTION

STUDY AREA

The "Study Area" for *Imagine Idylwyld* was determined and refined with the feedback from a series of engagement efforts with the Steering Committee, Stakeholders, and the public. Generally, the boundary includes a one block perimeter surrounding Idylwyld Drive between 20th Street and 25th Street. Additional areas beyond the one block perimeter, including Wall Street and the Toys "R" Us block, were included to ensure that future designs can make provisions for access and servicing, and that suitable lands are available for 'gateway' areas into the City Centre as defined by the City Centre Plan.

The "Area of Impact" includes lands and developments that might affect *Imagine Idylwyld* - or vice versa. This area was established based on the site analysis in this report and by mapping the extent of feedback and comments received during engagement events. Policies established throughout the *Imagine Idylwyld* project may make policy recommendations throughout this area.

Refer to "Figure 2.1 Imagine Idylwyld Study Area and Area of Impact" on page 6.

Out of Scope Items

The following projects are running parallel to the *Imagine Idylwyld* process. These are projects that, while not a part of the *Imagine Idylwyld* scope, will be influential in its outcomes:

- Second phase of Idylwyld Drive Redevelopment: 25th Street and North
- Improvement, Redevelopment or Relocation of Fire Station No. 1
- Downtown Arena
- Railway Working Group

Auditorium Avenue was originally considered part of the scope. However, through the development of this plan, it became clear that the future function of Auditorium Avenue is highly dependent on the surrounding key facilities including Midtown Plaza, TCU Place, and the YMCA. Additionally, feedback obtained through the engagement process indicated that stakeholders and the community were satisfied with the existing operations and function of this street. While there are improvements that can be made to Auditorium Avenue, the decision was made to hold off on any recommendations through the *Imagine Idylwyld* study at this time. Improvements have been identified in this plan for the intersection of Auditorium Avenue and Idylwyld Drive.

POLICY CONTEXT

There are many City of Saskatoon (COS) plans, policies, strategies, bylaws, etc that influence the ldylwyld Drive corridor, or to which have influenced the development of alternatives and concept design for *Imagine ldylwyld*.

Details on these policies are provided in the Issues and Opportunities Report (May 2017).

WORK TO DATE: PHASE 01 + 02 + 03

The following provides a high level overview of the work undertaken to date as part of the previous phases of work.

PHASE 01: BACKGROUND REVIEW Standards of Care

The Project Team established the following Standards of Care for *Imagine Idylwyld* to clearly communicate the project scope to stakeholders and the public, as well as establish a framework to help guide the project:

Idylwyld will be designed as an urban street.

Vehicular grade separations will not be considered. The street will be designed to be safe and to encourage driving speeds around a speed limit of 50 km/h. A well-designed and engaging landscape / streetscape will help to achieve this.

Idylwyld will remain an arterial street.

It will be designed for the safe and efficient movement of large volumes of cars and trucks as a key link in the city's motor vehicle transportation network.

All modes of travel will be considered and accommodated.

This includes walking, cycling, driving, transit, and freight.

All types of people will be considered and accommodated. This includes people of all ages and abilities.

Land use and transportation planning are integrated.

The street design will be compatible with the intended land use, not the other way around. The intended land use will be determined through this study process.

Existing businesses and driveways will be accommodated.

There is no intent to force anyone out, over the long term the access to adjacent properties may evolve along with the land use.

Saskatoon is a winter city.

Winter weather and snow management will be considered in the street design.

The most up-to-date engineering design standards, guidelines, and best practices will be used.

Modern guidelines allow a great deal of context-sensitive approaches. Idylwyld is not a suitable context for pioneering street design elements never before used or researched for use in Canada.

PHASE 02: CORRIDOR ASSESSMENT

Guiding the Design

Imagine Idylwyld is composed of several integrated parts and processes that will guide the design and inform the outcome for the Imagine Idylwyld study area.

INTRODUCTION

IDYLWYLD DRIVE IS A SIGNATURE GATEWAY INTO THE CITY CENTRE; A MODERN GRAND AVENUE THAT CONNECTS PEOPLE AND PLACES IN A COMPACT, MIXED USE URBAN ENVIRONMENT THAT SUPPORTS DAILY LIFE IN SASKATOON.

Vision

Leading the design is the project vision, which was established though extensive community input. The draft vision was formed with a steering committee visioning session, and refined to the final vision through feedback obtained through a stakeholder workshop and an online community survey. The vision takes into account the three major scope areas of Imagine Idylwyld:

- **TRANSPORTATION + CONNECTIVITY:** the movement of users through the study area, connecting people with their destinations using their mode of choice.
- **LAND USE + BUILT FORM:** the types of destinations and locations of buildings within the study area and how they integrate with and are supported by the transportation network.
- **PUBLIC REALM + URBAN DESIGN:** the application of a design that creates a gateway condition and unifies the corridor, enhancing the quality of the street and nearby open spaces.

Corridor Priorities

The vision is supported by five corridor priorities that will guide the specific outcomes of Imagine Idylwyld. These priorities were created with the community and reflect the desired outcomes for the project.

Efficient + Predictable

Idylwyld Drive will be a street that provides the most efficient and predictable means of travel for all users.

Safe + Accessible

Idylwyld Drive will be a street that is safe and comfortable for users of all abilities 24 hours a day, 365 days a year.

Walkable + Human Scale

Idylwyld Drive will be a street that is comfortable to walk along and across in an interesting and engaging urban environment.

Connected + Cultural

Idylwyld Drive will be a street that not only connects people with their destinations but with our cultural, built and natural heritage.

Livable + Sustainable

Idylwyld Drive will be a street that enhances daily life by balancing environmental, social, cultural, and economic considerations.

PHASE 03: DEVELOPMENT OF ALTERNATIVES Concept Options

The process of developing alternatives began with the creation of an Initial Concept Layout based on the vision, issues and opportunities, and design parameters set out in earlier phases. With the Initial Concept Layout created, opportunities for alternative vehicle lane function were identified at three intersections: 20th Street, 22nd Street, and 24th Street. Two alternative bicycle accommodation schemes were also identified. These localized alternatives were combined to create two overall corridor alternatives. A and B.

Option A

Was optimized to minimise peak time delay with dedicated turn lanes, including southbound right-turn at 20th and dual northbound left-turn lanes at 22nd. Though improved from today, this limits room for pedestrians, and cyclists are directed off Idylwyld Drive between Auditorium Ave and 23rd St W to nearby streets.

Option B

Was designed for multi-modal balance with space for pedestrians maximized and a continuous cycling connection along Idylwyld Drive. Though traffic flow is improved from today, this limits space for dedicated turn lanes and delays at peak times are longer than Option A; though shorter than Option A at 22nd St at other times of day.

Assessment of Alternatives

The proposed alternatives were tested through an online survey, and at an engagement booth held at the Saskatoon Farmer's Market in early June 2017. The results from the survey indicated public support was generally in favour of Option A at the whole corridor scale; at the intersection level it was clear that minimizing delay to motorists was the highest priority for the public.

Recommendation for Preferred Alternative

The public provided a clear direction that Idylwyld Drive should be designed to flow as smoothly as possible for the most number of drivers. This goal is achievable at the same time as achieving the desire to support all modes of travel and enable redevelopment opportunities. The results of the survey support the development of a hybrid preferred alternative, including: a southbound right turn lane at 20th Street, a single northbound left turn lane at 22nd Street, no northbound left turn at 24th Street, and continuous bicycle paths separate from vehicles.



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CONCEPT DESIGN













Figure 3.1 Preferred Alternative

IDYLWYLD DRIVE WILL BE **EFFICIENT** AND **PREDICTABLE** FOR ALL MODES OF TRAVEL, **SAFE**, BARRIER FREE AND **COMFORTABLE** 24/7, 365 DAYS A YEAR, BE **WALKABLE**, **LIVABLE** AND SHOWCASE SUSTAINABLE DEVELOPMENT.

CONCEPT DESIGN

DESIGN PARAMETERS

An Initial Concept Layout based on the vision, issues and opportunities, was prepared using the parameters established during the previous project phases to create a basic design concept for the motor vehicle lanes and sidewalks.

The following is a general summary of the basic design features:

- Traffic signal timing has been coordinated so that cars moving along the corridor will make the least number of stops possible to keep traffic flowing.
- Main driving lanes are continuous from Senator Sid Buckwold Bridge through 25th Street to avoid forced lane changes.
- Driving lanes are lined up through intersections and lanes don't start or end unexpectedly. This improves driving in winter conditions when visibility of lane markings may be reduced due to snow.
- Pedestrian crossings are improved by removing right turn islands and slip lanes for improved safety and accessibility. Crosswalks are shorter, reducing crossing time and exposure to conflict. Wait times are reduced through the coordination of traffic signal timing and intersection improvements.
- Dedicated left-turn lanes are provided so that turning vehicles don't block thru lanes while waiting to turn at intersections. Opposing left turn lanes are aligned head-to-head, increasing safety and saving space.
- Standardized lane widths are provided, with a minimum 3.3m for curb lanes and 3m travel lanes.¹
- Sidewalks are widened to 1.8m accommodate everyone, including wheelchairs and strollers.
- Cyclists are accommodated off-road with dedicated, continuous raised cycle paths.

A limited number of additional design features were also added to the basic design, including:

- Medians are provided mid-block between left turn lanes and where otherwise required for traffic guidance. Medians may comprise a combination of concrete and paint depending on location; final design and materials will be identified at the detailed design stage.
- A southbound right turn lane at the 22nd Street intersection to handle the large turning volume.
- Removing the second westbound lane at 23rd Street, which ends just downstream of the intersection.
- Prohibiting northbound left turns from ldylwyld Drive to the private driveway at the 24th Street East intersection, because there was not sufficient space for a dedicated left turn lane.

Refer to "Figure 3.1 Preferred Alternative" on page 12.

CONCEPT DESIGN

The recommended layout, derived through the development of alternatives is a hybrid of tested options. The public provided a clear direction that ldylwyld Drive should be designed to flow as smoothly as possible for the most number of drivers. This goal is achievable at the same time as achieving the desire to support all modes of travel and enable redevelopment opportunities.

The preferred design minimises travel time for the most drivers. This results in less delay during non-peak hours, accounting for more than three quarters of driver movements. In addition to the benefits to most drivers, the concept design is compatible with the intended evolution of the land use along ldylwyld Drive and adjacent neighbourhoods, and enables safer connections for people riding bicycles or walking, including better access to the proposed BRT station near 22nd Street.

¹ Current lane widths range from 3.0 m to 4.0 m, varying from block to block. There is a half-lane for southbound left turns from ldylwyld Drive onto Auditorium Avenue, which is 2.0 m wide, or slightly narrower than a standard car.





Figure 3.2 Multi-Modal Circulation and Connections



CITY BUILDING

"Corridors are destinations, not just roads that get you efficiently from point A to B. They connect neighbours and neighbourhoods together. They're places for people – whether you're walking, riding, driving, or spending time with your family and friends."

- City of Saskatoon, Corridor Plan¹

The vision for Idylwyld Drive was established through extensive community input and does not exist in isolation, it is part of the larger City of Saskatoon Plan for Growth and has a role to play in fostering a city that is healthy, inclusive and with a unique, recognizable identity. Meaningful public and stakeholder engagement is an integral component of *Imagine Idylwyld* to ensure the outcomes for the project are informed by the community.

In the initial phase of this project we defined the **Standards** of **Care** for the project, these focus around **City Building**. For the *Imagine Idylwyld* project this means that the street is being designed with a wider view to how it contributes to the City of Saskatoon and how it functions as a gateway to the City Centre.

It will be an:

Attractive, multi-modal, fully accessible urban street which supports large volumes of traffic.

The City Building approach incorporates common principles such as:

- Encouraging healthy communities, supporting active transportation (walking, cycling, etc) and increasing footfall along the street as a driver for investment.
- Improved connections to and between the adjacent neighbourhoods, and specifically improving the eastwest connection across Idylwyld Drive.
- 1 City of Saskatoon, https://www.saskatoon.ca/businessdevelopment/planning/plan-growth/corridor-planning

Figure 3.3 City Centre Vision Plan and Pedestrian Priority Streets

- Winter City design Climate-sensitive design is not to create year-round summer conditions but instead to celebrate the northern climate by adopting design strategies adapted to our northern environment making the winter experience of Idylwyld Drive safe, comfortable, and enjoyable.
- A street designed to suit the intended land uses of the long term vision rather than land use driven by the current design and use of the street.
- Using the most up-to-date engineering design standards, guidelines, and best practices.

Idylwyld Drive will be efficient and predictable, safe and comfortable and support daily life all year round.

From this framework, derived from both technical and public input, the alternatives were developed and tested to arrive at the preferred alternative and Concept Design presented herein.

SUMMARY

A City Building approach for Idylwyld Drive focuses on:

- Revitalizing Idylwyld Drive as an attractive place for people to live, where the public space encourages interaction and where sustainable development can support Saskatoon's growth
- Attracting key industries and accelerating investment in commercial development that helps boost growth and foster employment
- Developing sites around transit that encourage environmentally friendly means of transportation, create new connections and help the city sustain itself in the long term





Legend





THE RECOMMENDED LAYOUT FOR IDYLWYLD DRIVE IS DESIGNED TO FLOW AS SMOOTHLY AS POSSIBLE FOR THE MOST NUMBER OF DRIVERS, AT THE SAME TIME AS ACHIEVING THE DESIRE TO SUPPORT ALL MODES OF TRAVEL.

CONCEPT DESIGN

TYPICAL CROSS SECTION

The following are the key design features of the preferred concept design cross section:

Driving Lanes

- In all instances there are two continuous through lanes, lined up head-to-head across intersections.
- Where appropriate, dedicated turn lanes are provided to left and/or right turns.

Streetscape

- A buffer zone between vehicles and pedestrians / cyclists. This varies in widths depending on available space, from 750mm at the narrowest point, up-to 3m, and will incorporate planting where space allows.
- A 1.5m standard width uni-directional bike path, fully separated from vehicle traffic. The southbound path runs along the west side of the street, the northbound path runs along the east side. There are dedicated crossing points at 20th Street, Auditorium Avenue and at 23rd Street to connect to the wider cycling network.
- A 300mm tactile separation warning strip runs between the bike path and sidewalk to improve user safety.
- A standard 1.8m width sidewalk to the property line.

The proposed streetscape cross section is designed to allow for future redevelopment and built form outside of the ROW to be fully integrated as part of the public realm. Redevelopment provides the opportunity to create break-out spaces, sidewalk cafés, and/or semi-public plazas and parkettes to the property boundary, within the redevelopment areas, linked to the streetscape.



Figure 3.5 Typical Drive Lanes Cross Section



Figure 3.6 Typical Streetscape Cross Section



Figure 3.7 Idylwyld Drive @ 20th Street

Legend



20TH STREET @ IDYLWYLD LOS^{1 (AM)}: $B \rightarrow B | LOS^{2 (PM)}: C \rightarrow C$

| Average Wait Time* | AM PEAK⁺ | | PM PEAK [*] | |
|-----------------------|----------|----------|----------------------|----------|
| | CURRENT | PROPOSED | CURRENT | PROPOSED |
| Intersection overall | 17s | 16s | 28s | 21s |
| Northbound | 11s | 13s | 17s | 20s |
| Southbound | 11s | 12s | 25s | 10s |
| Eastbound | 46s | 36s | 45s | 38s |
| Westbound | 42s | 33s | 40s | 32s |
| Pedestrian / Cyclists | 125s | 100s | 130s | 115s |

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¹ LOS stated for Intersection overall - AM Peak * Average wait time to the nearest 5seconds ² LOS stated for Intersection overall - PM Peak * AM Peak time delay based on current traffic levels, 7:30 - 8:30 am ³ PM Peak time delay based on current traffic levels, 4:15 - 5:15 pm ⁴ Pedestrian / Cyclist times are maximum waits (not average)



Figure 3.8 Idylwyld Drive @ 21st Street West

LEGEND



AUDITORIUM AVE @ IDYLWYLD $LOS^{1}(AM)$: $A \rightarrow A \mid LOS^{2}(PM)$: $A \rightarrow A$

| Average Wait Time* | AM PEAK [*] | | PM PEAK* | |
|-----------------------|----------------------|----------|----------|----------|
| Average wait fille | CURRENT | PROPOSED | CURRENT | PROPOSED |
| Intersection overall | Зs | 10s | 6s | 2s |
| Northbound | 3s | 11s | 6s | 1s |
| Southbound | 2s | 8s | 6s | 1s |
| Eastbound | 4s | 17s | 8s | 1s |
| Westbound | 50s | 32s | 46s | 53s |
| Pedestrian / Cyclists | 125s | 100s | 130s | 115s |



¹ LOS stated for Intersection overall - AM Peak ² LOS stated for Intersection overall - PM Peak ³ AM Peak time delay based on current traffic levels, 7:30 - 8:30 am ⁴ PM Peak time delay based on current traffic levels, 4:15 - 5:15 pm * Pedestrian / Cyclist times are maximum waits (not average)

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Figure 3.9 Idylwyld Drive @ 22nd Street



22ND STREET @ IDYLWYLD LOS1(AM): $E \rightarrow C | LOS^{2}(PM): F \rightarrow F$

| Average Wait Time* | AM PEAK [*] | | PM PEAK [*] | |
|-----------------------|----------------------|----------|----------------------|----------|
| | CURRENT | PROPOSED | CURRENT | PROPOSED |
| Intersection overall | 68s | 32s | 72s | 49s |
| Northbound | 63s | 43s | 76s | 46s |
| Southbound | 114s | 26s | 94s | 59s |
| Eastbound | 44s | 26s | 57s | 35s |
| Westbound | 37s | 29s | 53s | 52s |
| Pedestrian / Cyclists | 125s | 100s | 130s | 115s |



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¹ LOS stated for Intersection overall - AM Peak * Average wait time to the nearest 5seconds ² LOS stated for Intersection overall - PM Peak * AM Peak time delay based on current traffic levels, 7:30 - 8:30 am ⁴ PM Peak time delay based on current traffic levels, 4:15 - 5:15 PM + Pedestrian / Cyclist times are maximum waits (not average)



Figure 3.10 Idylwyld Drive @ 23rd Street E, Jamieson Street

Legend



23RD STREET E @ IDYLWYLD LOS^{1 (AM)}: $B \rightarrow C \mid LOS^{2} (PM)$: $B \rightarrow B$

| Average Wait Time* | AM PEAK [*] | | PM PEAK [*] | |
|-----------------------|----------------------|----------|----------------------|----------|
| | CURRENT | PROPOSED | CURRENT | PROPOSED |
| Intersection overall | 15s | 22s | 18s | 17s |
| Northbound | 13s | 24s | 14s | 10s |
| Southbound | 6s | 18s | 10s | 9s |
| Eastbound | 50s | 32s | 46s | 41s |
| Westbound | 50s | 33s | 52s | 51s |
| Pedestrian / Cyclists | 125s | 100s | 130s | 115s |



¹ LOS stated for Intersection overall - AM Peak * Average wait time to the nearest 5seconds ² LOS stated for Intersection overall - PM Peak * AM Peak time delay based on current traffic levels, 7:30 - 8:30 am ⁴ PM Peak time delay based on current traffic levels, 4:15 - 5:15 pm ⁵ Pedestrian / Cyclist times are maximum waits (not average)



Figure 3.11 Idylwyld Drive @ 24th Street East

Legend



24TH STREET @ IDYLWYLD LOS^{1 (AM)}: $C \rightarrow B \mid LOS^{2} (PM)$: $B \rightarrow B$

| Average Wait Time* | AM PEAK [*] | | PM PEAK [*] | |
|-----------------------|----------------------|----------|----------------------|----------|
| Average wait fille | CURRENT | PROPOSED | CURRENT | PROPOSED |
| Intersection overall | 13s | 11s | 28s | 12s |
| Northbound | 14s | 12s | 24s | 8s |
| Southbound | 7s | 6s | 12s | 3s |
| Eastbound | 52s | 40s | 49s | 37s |
| Westbound | 47s | 39s | 83s | 48s |
| Pedestrian / Cyclists | 125s | 100s | 130s | 115s |



LOS stated for Intersection overall - AM Peak * Average wait time to the nearest 5seconds
 ZOS stated for Intersection overall - PM Peak * AM Peak time delay based on current traffic levels, 7:30 - 8:30 am
 PM Peak time delay based on current traffic levels, 4:15 - 5:15 p
 PM Peak time for a traffic levels, 7:30 - 8:30 am
 Pedestrian / Cyclist times are maximum waits (not average)



Figure 3.12 Auditorium Avenue

Legend

Study Area
Crosswalk
Sidewalk
Raised Bike Path
Shared Multi-Use Path (Pedestrian & Cyclists)
Landscape Buffer





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ACCESS & IMPLEMENTATION STRATEGY









Legend

-- Study Area

Short Term Access Strategy

- ••• Sidewalk
- ••• Raised Bike Path
- Existing Fire Station Access / Egress

Long Term Access Strategy

Laneway - Vehicles, Pedestrians & Cyclists

Alleyway - Pedestrians & Cyclists



Figure 4.1 Access Strategy



ACCESS STRATEGY

The long term access strategy focuses on the principles of City Building and seeking to increase footfall and attractiveness of Idylwyld Drive as an Urban Street.

In the short term as part of the functional improvements, key steps include the streetscape improvements to provide:

- Continuous routes for all modes of travel, this includes continuity of pedestrian sidewalks and bike paths across existing driveways.
- Improved pedestrian and bike crossings to make the street more comfortable and attractive to cross and travel along.
- Driveway access to existing businesses and properties along Idylwyld Drive will remain as part of the short term functional road improvements.

As part of the long term vision for *Imagine Idylwyld*, as redevelopment occurs City bylaws and guidelines relating to driveway access shall be implemented including:

- City of Saskatoon, Bylaw No. 4785 which regulates the installation of private crossing in the City of Saskatoon; and
- City of Saskatoon, Transportation & Utilities, Private Driveway Crossing Guidelines.

As properties are redeveloped the following access strategies shall be encouraged:

 Shared rear laneway access for servicing and deliveries, as well as access for resident, employee and customer parking etc. These laneways have the potential to become dynamic spaces within the redevelopment blocks, allowing for 'double-fronted' developments with their own streetscape treatment and potential for private and/or semi-public usable spaces.

- Restrict/limit construction of driveways with direct access onto /from ldylwyld Drive which cross sidewalks and bike routes. In addition to allowing for further streetscape improvements, removal of driveways will benefit traffic flow along the road itself.
- Where parking is required, encourage best and highest use of the land through structured parking within the redevelopment. Access to parking structures should be from the side streets and via the rear laneways to avoid disrupting traffic flow along ldylwyld Drive.
- Seek permeability of the development blocks by incorporating attractive, overlooked and safe pedestrian alleyways, increasing opportunities to connect beyond Idylwyld Drive.

SUMMARY

- Continuous routes for all modes of travel.
- Long term redevelopment to reduce number of driveways directly onto Idylwyld Drive.
- Long term creation of rear laneways for service, delivery and parking access to properties along ldylwyld Drive.
- Encourage shared structured parking to reduce the area of land used for surface parking.

Legend

Study Area



Existing Buildings

PHASED IMPLEMENTATION STRATEGY

> Short Term (0-5 years) Road & Streetscape Improvements within the ROW

Medium - Long Term (5 - 30 years) Redevelopment of the Idylwyld Corridor

Future Redevelopment



Figure 4.2 Implementation Strategy



PHASED IMPLEMENTATION STRATEGY

The *Imagine Idylwyld* Project has at its core a long term vision for the Idylwyld Drive corridor. While there are immediate functional issues with the street that must be addressed in the short term, the implementation of the concept is envisioned over a much longer time-line, working with local businesses, the community, developers and other stakeholders to transform the street. The Concept Design sets the vision and framework through which to evaluate future decisions.

As such, a series of implementation phases have been set out as a road-map to achieving the vision for *Imagine Idylwyld*.

SHORT TERM (0 - 5 YEARS)

Short term implementation which focus on the functional improvements to address the current condition of the road, as well as start to make the corridor more attractive for users, setting up the conditions for redevelopment. These measures seek to improve the functional aspects of the corridor for all users, while enhancing the attractiveness, comfort and safety of Idylwyld Drive as a gateway to the city:

- Implementation of the proposed road improvements
- Provide generous sidewalks, cycle lanes and space for vulnerable users: pushchairs, scooters, etc
- Strategic clustering of streetscape furnishings, specific to intended users, at key nodes
- Low impact development (LID) stormwater management - bioswales with plantings of native prairie grasses
- Public artwork and creation of 'gateways' at 20th, 22nd and 23rd Streets
- Wayfinding and Interpretive material to celebrate place, people, local stories and events
- Temporary installations to transform unoccupied sites into pop-up parks, etc prior to redevelopment
- Participate in 'Park(ing) Day', etc

MEDIUM TERM (5 - 15 YEARS)

Mid term implementation goals will look at the control for redevelopment and begin to add amenity spaces to attract investment. These measures include facilities to support and increase daily use of the Idylwyld Drive corridor:

- Tree cover at strategic nodes for comfortable social environments that showcase local biome/ microbiomes, food and sustainable energy production
- With redevelopment over time reduce the number of driveways, encouraging rear laneway access for servicing, deliveries and parking
- Encourage land uses which compliment surrounding neighbourhoods and increase footfall
- Establish bylaws relating to built form (building heights, setbacks, etc) to achieve a coherent, urban street character and increase publicly accessible (semi-public) open space adjacent the right of way
- SMART City innovations for transportation, sharing information and way-finding

LONG TERM (15 - 30+ YEARS)

Long Term implementation goals address the evolution of the corridor into the thriving urban street and gateway to Saskatoon, as both a desirable address, as well as connective corridor that encourages enjoyment of the wider city

- Urban redevelopment to comprise:
 - A consistent urban character and identity for new buildings along the corridor
 - Transit-supportive community with compact, walkable urban blocks
 - Animate the street with higher footfall along Idylwyld Drive through active ground floor uses
 - Mixed-use, mid-rise buildings framing public open spaces to extended the active hours of the street throughout the day and evening
 - Create a comfortable, human-scale environment



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TRAFFIC ACCOMMODATION STRATEGY









Legend



Study Area

Existing Buildings not proposed for redevelopment

TRAFFIC ACCOMMODATION DESIGN COMPONENTS

••• Potential Detour (Through Traffic)

Local Traffic Only

Temporary Traffic Signal Re-Timing

Potential Temporary Dual Left Turn & Traffic Signal Changes



Figure 5.1 Traffic Accommodation Strategy

IMPLEMENTATION OF THE RECOMMENDED ALTERNATIVE WILL INVOLVE NEAR-COMPLETE REMOVAL AND RECONSTRUCTION OF THE ROADWAY AND SIDEWALKS WITHIN THE RIGHT OF WAY. AS SUCH, TRAFFIC WILL BE SIGNIFICANTLY IMPACTED.

TRAFFIC ACCOMMODATION

SEASONAL CONSTRUCTION STAGING

Staging the roadway-related improvements over several construction seasons, for example constructing one block at a time, would be difficult. The existing centreline and travel lanes do not align with the proposed centreline and travel lanes. While vertical elements of the design remain to be completed in the subsequent detailed design phase, it is also unlikely that the existing and proposed profiles will align. There may be an opportunity to stage construction over two seasons, with a break near 23rd Street West. In this location the existing median is approximately aligned with the proposed median and the proposed roadway footprint is entirely within the existing roadway footprint. It is likely, given these factors, that a suitable transition could be created with temporary traffic accommodation devices. This would need to be confirmed following the detailed design phase.

If construction is staged with a seasonal break at 23rd Street West, the portion south of that would be best suited as the first stage. The general improvements to traffic flow arising from the recommended plan are governed by the geometric improvements at the 22nd Street intersection and the related ability to re-time the traffic signals to eliminate split phasing. Thus the maximum benefit is achieved in the first season if construction includes the 22nd Street intersection. Phasing the roadway construction from south to north would also enable the aesthetic improvements to the entrance to Downtown Saskatoon and Riversdale at the 20th Street gateway as part of or immediately following the first phase. A gateway feature and landscaping has already been constructed at the north project gateway.

Landscaping and other urban design elements would follow the roadway construction and could be phased to take place in subsequent construction seasons.

TRAFFIC ACCOMMODATION DURING CONSTRUCTION

In general during construction, work could take place on one side of the road while the other side is closed. One lane of traffic per direction and one sidewalk could stay open most of the time. This significant capacity constraint will affect Idylwyld Drive well upstream of the construction area. Traffic accommodation plans should include a robust promotional campaign on traditional and social media, as well as signage well in advance including the entrances to the city on Highways 11 and 16, recognizing that some highway drivers continue to use Idylwyld Drive as a through route. Full closures of the street and intersections will likely be required from time to time. Since there are few residential dwellings nearby, 24-hour construction should be considered, with full closures limited to overnight.

First Avenue is a suitable detour route and should be promoted in the publicity campaigns and with on-site signage. It may also be beneficial to alter the signal timing along First Avenue for the duration of construction along Idylwyld Drive.

Alternatively, full closure of Idylwyld Drive except to local traffic could be considered from it's junction with First Avenue to 23rd Street East. This approach may shorten the duration of construction and could result in lower construction costs, but may not be desirable for the adjacent business owners, nor for those on First Avenue. During the detailed design phase, this option could be discussed with stakeholders if desired.

In either scenario, First Avenue will be significantly impacted. Temporary traffic control changes, such as temporary dual left turns, turning restrictions, or parking restrictions, should be considered during detailed design.

PROPERTY ACCESS

It is assumed that all existing property accesses must remain open for the duration of construction. The details of accomplishing this and the engagement with stakeholders required to develop a suitable plan will be an important component of the work to be completed in the detailed design phase.



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Figure 6.1 Streetscape Character

THE DESIGN VISION FOR THE PUBLIC REALM INTERTWINES THREE CORE PRINCIPLES OF IDYLWYLD AS A 'LIVING' BIODIVERSE CORRIDOR, A 'CELEBRATION' OF PEOPLE AND PLACE AND AS 'CONNECTION' BETWEEN ASPECTS OF SASKATOON LIFE.

STREETSCAPE DESIGN

STREETSCAPE CHARACTER

The streetscape for *Imagine Idylwyld* will contribute to making Idylwyld Drive an attractive, thriving gateway into the city. The first online survey (November 2016) corroborated a clear and unified vision for the character and use of the corridor:

- **Main Street Condition** 80% of respondents wished to see a Main Street with wide, spacious sidewalks.
- Modern-Natural Streetscape Design 75% preferred a modern streetscape design. Of that 75%, 64% wanted a naturalized modern character with dense tree plantings and vegetation.
- **Mixed Use Development** 79% of respondents envision Idylwyld Drive as a mixed use corridor. Suitable uses were identified as retail, commercial office, hospitality and some residential.
- **Mid-Rise Urban Built Form** 53% of respondents envisioned a mid-rise urban condition with buildings between 6-8 storeys. 40% of respondents preferred a low-rise urban condition of 3-4 storeys.

These overarching characteristics are supported by three core characteristics which will define the unique identify for ldylwyld Drive:

A Biodiverse Modern Streetscape

Streetscape character will be reflective of the prairie landscape with connection to the South Saskatchewan River. The public realm contributes to a healthy urban ecology through living blue-green infrastructure that mimics natural systems to respond to urban and climatic challenges, such as stormwater management. These natural systems modify and improve the comfort level within the streetscape, while reducing environmental impacts of urban development.

The long term goal is to achieve clean water and healthy soils, climate adaptation, less heat stress, better air quality and more biodiversity as well as anthropocentric functions such as increased quality of life through connection to nature, space for social interaction, and providing shade and shelter for the comfort of users all year round.

Celebration of People & Place; Natural & Built Heritage; Art and Culture; Past, Present and Future

Celebration of the story of Saskatoon through multi-media storytelling, using the built environment, landscape and art installations to create a processional gateway into the heart of Saskatoon. Though each 'moment' may be unique, combined they will tell a story and may be woven together to celebrate the culture of the city and region.

The long term goal is to create a unique, dynamic and vibrant identity for Idylwyld, acting as the 'missing link' between the City Centre and surrounding neighbourhoods. Installations may include land form (land art), planting and environmental art, written storytelling, sculptural art installations, murals, graffiti walls and post-boards, lighting, digital media and interactive features, as well as experiential environments that are changed by wind, the seasons, day and night, etc. as well as flexible multi-use space.

Connection between People & Place, Neighbourhood & City

Responding to the success of urban regeneration areas within Saskatoon's City Centre, this model establishes a framework which creates a series of 'hot spots' or 'gateways' – places for social interaction, each with a unique identity relating to the surrounding land uses/neighbourhoods. These would be sited at key nodes where existing and future communities interface and at key connection points. This encourages urban regeneration and (re)imagining of Saskatoon as a diverse, interconnected series of neighbourhoods, each with a unique offering and draw for local and wider communities to explore. Idylwyld forms the structuring point that acts to connect the neighbourhoods and define the people as a city.

The main components of this approach include a series of 'rooms' or clusters along improved multi-modal corridors, space for recreation and social interaction, wayfinding and highlighting local attractions/destinations.

Legend Streetscape Strategy

– — Study Area

Streetscape Design Components



Gateway Opportunity

Potential public / semi-public 'breakout' space: plaza or parkette

To include:

- Sheltered seating
- Cycling Parking
- Tree groupings
- Soft landscaping
- Interpretive Materials

Key Wayfinding (Pedestrian & Cyclists) To incorporate signage for locations throughout the city

Potential Landscape Boulevards / Bioswales



Figure 6.2 Preliminary Streetscape Strategy



DESIGN RATIONALE

The streetscape design addresses the public realm of Idylwyld Drive as a space to be inhabited as well as observed, and considers the experience of all users, from the perspective of those travelling in vehicles to those walking or cycling along Idylwyld Drive. The concept design enhances the experience of the pedestrian and cyclist by improving accessibility, comfort and attractiveness, while providing separation from the road to reduce the impacts of being in proximity to the arterial street. The streetscape design is intended help realise the long term goals for redevelopment of the corridor. This will start with functional improvements within the right of way, while establishing conditions that will enable seamless transition into, and integration of, new semipublic spaces within future redevelopments.

GUIDING PRINCIPLES

Underlying all aspects of the streetscape design is the requirement to achieve places that are safe, comfortable and attractive for all modes of active transportation through all seasons, day into night. Complimenting this baseline requirement are a series of guiding principles to achieve the envisioned streetscape character (refer to "Streetscape Character" on page 37).

Clusters

Cluster amenity space at intersections, with enhanced paving treatment, incorporation of gateway artwork, site furniture, etc. These areas have the most space to accommodate these features, and are least impacted by driveways, and changes during redevelopment.

Materiality

Provide consistent, durable surface treatment, lighting and convenient seating, with protection from traffic noise, spray from vehicles, etc between the intersections to make the corridor a more comfortable place to be – both for nonvehicular travel through the corridor, as well as a thriving urban street in its own right.

Wayfinding & Views

The plan has considered and relies upon a variety of dramatic views to orchestrate experience and movement. Wayfinding is proposed at key points throughout the corridor, highlighting city wide connections and links to the surrounding neighbourhoods. Wayfinding will incorporate interpretive information, and consider opportunities for SMART technologies (such as digital media) as well as places to advertise events, etc held throughout the city. Wayfinding may also incorporate branding opportunities, and be fully integrated with the street furniture, such as in banners attached to light poles advertising seasonal events.

Gateways

Gateway features will compliment the wayfinding strategy. These prominent features will be visually linked along the corridor with views from one to the next, while creating landmarks that both animate the streetscape as well as celebrate the surrounding neighbourhoods.

Edge/Interface - Public / Semi-Public

The proposed streetscape cross section is designed to allow for future redevelopment and built form outside of the ROW to be fully integrated as part of the public realm as usable accessible space. Redevelopment provides the opportunity to create break-out spaces, sidewalk cafés, and/or semipublic plazas and parkettes to the property boundary, within the redevelopment areas, linked to the streetscape. These semi-public spaces support extended use of the streetscape contributing to increased levels of activity and footfall.

Low Impact Development

Low-impact development (LID) is a term used to describe a green infrastructure approach to stormwater management. For *Imagine Idy/wyld*, this will involve the integration of bioswales, continuous landscaped channels designed to attenuate and remove pollutants from rainwater runoff from the road and streetscape. These will serve the dual purpose of providing an attractive separation between vehicles and pedestrians/cyclists, protecting and improving user comfort.





Figure 6.3 Urban Morphology



DESIGN FRAMEWORK

The following outlines the design framework which has guided the concept streetscape design. The framework embodies the principles of **City Building** (refer to "*City Building*" on page 15) and the project specific guiding principles (refer to "*Guiding Principles*" on page 39) to achieve the long term aspirations for the project.

Long term redevelopment will seek to regularize block geometry for improved development efficiency, connectivity and cohesiveness of character between the east and west sides, as well as north to south throughout the extent of the study area. Consistency in building heights, setback, orientation and coverage will ensure a cohesive overall character with a well defined street wall and urban edge. While complementary land uses will unite east and west sides of Idylwyld Drive, there will be a transition of land uses north to south to reflect the neighbouring uses in Riversdale, Caswell Hill, Downtown and Central Industrial.

North of 22nd Street is envisioned as a transitional zone between the residential, commercial and industrial areas of Downtown, Caswell Hill and Central Industrial neighbourhoods. While the street wall, built form and streetscape will be continuous to that in the south, maintaining a compact and walkable form, the development should be in keeping with the scale and rhythm of the surrounding neighbourhoods, and presence of heritage buildings, such as the Old CPR Station and Fairbanks Morse Warehouse. Larger building massing can be accommodated to create a vibrant mixed use community with a range of retail and complementary uses that showcase local people, business and skills.

The southern extent of the study area is envisioned as a downtown street, with a compact, human scale urban structure to create an interesting and walkable pedestrian environment with active uses at grade – a key factor for all development will be creation of active laneways and alleyways which will provide permeability through the new development and connect to the surrounding neighbourhoods. All redevelopment should have front doors onto Idylwyld to animate the street, including those contained within a larger complex. Consistency should be maintained through the rhythm and character of the building form.

Urban Morphology

Redevelopment should regularize block geometry. This will improve development efficiency, support cohesiveness of character and establishment of a strong street wall (refer to "Street Wall" on page 45). Consistency in building heights, setback, orientation and coverage will ensure a cohesive overall character with a well defined street wall. The urban structure is defined in four primary zones:

- Zone A North of 22nd Street is envisioned as a transitional zone into the urban environment of Idylwyld Drive and the Downtown. While compact and walkable, development should be in keeping with the scale and rhythm of the neighbouring built form.
- Zone B West Side, South of 22nd Street is envisioned as a downtown street, with a compact, human scale urban structure. Comprising a mix of uses with street access to draw higher levels of footfall along Idylwyld Drive, this zone should comprise more compact footprints.
- Zone C East Side, South of 22nd Street is envisioned as an extension of the Midtown Plaza shopping centre and TCU Place and may accommodate larger building footprints. All development should have street front building entrances, including those properties/shops contained within a larger complex, to maintain the rhythm and character of Zone B.
- Zone D East Side, South of 20th Street potential site for future redevelopment.

Refer to "Figure 6.4 Built Form" on page 42.

Legend Proposed Plot Sizes

🗕 🗕 Study Area

Proposed Long Term Infill and/ or Redevelopment

All developments are proposed as mixed use, including residential development. All development should be urban in character with active frontages at grade.

Where parking is required, structured parking should be incorporated into redevelopment.

The below suggested land uses are indicatives of the types of businesses, services, etc which alongside residential, are complementary to the long term *Imagine Idylwyld* Vision and surrounding neighbourhoods:

> Retail, Cafés, Offices, Showrooms & Workshops, District Health Services

Retail, Restaurants, Cafés, Bars, Galleries, Sports & Fitness, Libraries, Neighbourhood Health Services, Veterinary

Retail / Shopping Centres, Offices, Restaurants. Hotels Conference and Convention Centres

Potential site for future redevelopment

Fire Hall - Out of the scope of Imagine Idylwyld



Figure 6.4 Built Form



LAND USE PLANNING

The *Imagine Idylwyld* study area is predominantly commercial in use and character. Existing land use policies in The City of Saskatoon Official Community Plan (OCP) reinforce the perception of Idylwyld Drive as a dividing line between east and west; with a clear distinction between uses on either side. Land use recommendations from Local Area Plans for surrounding neighbourhoods and districts are naturally inwardly-focused, and have resulted in some fragmentation of land uses and character along this corridor. Two successful land use areas may provide an example for *Imagine Idylwyld* to build upon. Although small and isolated, the mixed use block along Avenue A is a vibrant urban environment. The City's recent implementation of Direct Control Districts provides an example of how to bridge across Idylwyld Drive with a more contiguous land use strategy.

The proposed land use strategy for *Imagine Idylwyld* seeks to:

- Ensure a consistent mixed-use, mid-rise, main street character and identity for the corridor (refer to "Streetscape Character" on page 37)
- Create higher levels of density and activity at nodes and gateways
- Offer more housing options, including affordable housing, to encourage neighbourhood diversity
- Create an interesting and walkable pedestrian environment with active uses at grade
- Establish a sense of place and identity through diversity in new built form and architecture and distinct and coordinated streetscape improvements
- Transition land uses north to south between commercial and residential uses in Riversdale, Caswell Hill, Downtown and Central Industrial
- Support complementary land uses to unite east and west sides of Idylwyld Drive
- Integrate with City efforts to update the OCP to address the inconsistent land use policy area north of 25th Street East

Land Use Zones:

While all development opportunities for Idylwyld Drive are envisioned as mixed-use, with active ground floors, subzoning the study area enables grouping similar uses. By doing so, individual businesses benefit from clustering effects as a go-to destination for their type of service or goods.

- Zone A is envisioned as a vibrant mixed use community with a range of retail and complementary uses that showcase local people and skills. Such businesses may include clothing designers, jewelry makers and artisan skilled trades offering bespoke products or services, as well as cafés, etc. These uses may require a larger building footprint and have a greater reliance on vehicular access for service and delivery. This area may accommodate garages and domestic repairs.
- Zone B is envisioned as a shopping and entertainment destination to draw higher levels of footfall along Idylwyld Drive, connecting Downtown with Riversdale, and should comprise a mix of complementary uses. A focus on local goods and/or independently owned shops, boutiques, galleries and restaurants, etc will augment the franchise outlets located in Midtown Plaza. Eating and entertainment venues will extend the liveliness of the area through the evening hours.
- Zone C is envisioned as mixed-use commercial and business land uses. Suitable uses include expansion of the Midtown shopping centre and TCU facilities, entertainment and eating venues, as well as uses which extend the active period, such as night life venues, and event venues. All development should have street front building entrances, including those properties/shops contained within a larger complex.
- Zone D potential site for future redevelopment.





Figure 6.5 Proposed Building Heights



STREET WALL

A consistent Street Wall, the physical characteristics defined by the built form of development, is a key factor to achieving a vibrant, comfortable, human scale urban character and compact built form.

The goal is to achieve a more urban character, sense of arrival to the downtown, and ensure a human scale to provide a better balance to the road and make the corridor more comfortable for all users. There are various factors that must be considered:

Building Heights

The built form will be used to frame the corridor, impart a sense of entering an urban area, and ensure a cohesive street identity. Building height is a key factor in achieving a human scale to the development – to balance the width of the road all buildings are proposed as mid-rise with a minimum building height of 3 – 4 storeys, with an increased height of 6 – 8 storeys to reinforce the streetscape nodes at intersections. Ground floor colonnades and increased building setbacks to upper floors (above 10m) avoids pedestrians feeling overwhelmed by the scale of development. Building heights may step down to a minimum of 2 - 3 storeys where they do not have frontage directly onto Idylwyld Drive to tie in with surrounding neighbourhoods.

Refer to "Figure 6.5 Proposed Building Heights" on page 44.

Setbacks

By setting development guidelines for setbacks we can bring the development closer to the road, and give the area a more comfortable, consistent human scale to streetscape – this also allows the opportunity to use the built form to create an expanded streetscape, and potential to use the building form itself, through the creation of colonnades to provide further weather protection – from snow, rain, wind and shade in the summer. To achieve the vibrant, main street character for the corridor the primary frontage onto Idylwyld Drive is proposed at a minimum of one metre from the front property line. To provide 'break out' areas in the form of semi-public open spaces along the corridor, redevelopment may comprise localized setbacks at five metres or less from the front property line. Setback controls will also be used to ensure additional space is protected at intersections for the creation of gateway public spaces.

Refer to "Figure 6.6 Proposed Setbacks - Typical Sections" on page 46.

Building Frontage & Orientation

Primary frontage should occupy 75% or more of the primary street frontage with a preference for continuous blocks to provide a strong street wall, with alleyways at approximately 75 m (50-100 m) to allow access to rear laneways.

New development should be designed to face the street with the primary pedestrian access onto ldylwyld Drive (or adjacent street as appropriate). Design controls should be developed to ensure cohesiveness in terms of architectural style, including fenestration, materials and signage, with glazed ground floors to activate the street, while allowing for individuality, particularly for gateway developments.

Laneways & Alleyways

As redevelopment occurs vehicular access, servicing and parking will be planned via rear laneways to reduce the driveways and other vehicular access points onto Idylwyld Drive. Removal of driveways allows for a more walkable streetscape environment that buffers pedestrians from vehicular traffic. These laneways and alleyways should be designed to allow multi-modal movement to improve eastwest permeability and connection between Idylwyld Drive and the surrounding neighbourhoods.



Figure 6.6 Proposed Setbacks - Typical Sections

URBAN MORPHOLOGY

Idylwyld Drive today is generally defined by irregular blocks. Building footprints are generally inconsistent in size, setback, orientation and coverage, providing no defined street wall or urban edge (with some exception along 20th Street W). The long term vision for redevelopment will seek to define regular development block sizes with a more urban character, similar to that of Downtown with a natural transition to the adjacent neighbourhoods of Riversdale and Caswell Hill.



Proposed Built Form (Indicative) - Elevation B-B'

Figure 6.8 Urban Morphology - Building Elevation



Existing Built Form Figure 6.7 Urban Morphology - Figure Ground Analysis





Figure 6.9 Landscape Boulevard (Bioswale)



LOW IMPACT DEVELOPMENT

Low impact development (LID) shall be incorporated into the *Imagine Idylwyld* streetscape in the form of bioswales to reduce reliance on traditional 'grey infrastructure' storm sewer systems. A bioswale differs from a simple landscape channel/ditch in that it is constructed of soil layers to enhance infiltration and storage beyond what the compacted native soil can absorb. Due to the available space within the ROW, the Idylwyld bioswales will comprise a mix of vegetated swales where space is sufficient for planting to establish (wider than 1.25m), and rock swales for continuity through narrow areas.

For Idylwyld Drive, desired outcome of the bioswales will seek to balance reduction in peak flows of runoff into the sewer system, with improved water quality and ground recharge. In Saskatoon, consideration of the cold winter conditions is very important to any LID design.

DESIGN CONSIDERATIONS

Each LID project requires a site specific design that responds to local conditions. Factors such as soil properties, frost depth, precipitation amounts and types, winter site maintenance (salt, sand or gravel application), desired maintenance effort, etc., can all impact the successful incorporation of LID.

Saskatoon Local Conditions

Saskatoon is in a Prairie ecozone and a Moist Mixed Grassland ecoregion (Saskatchewan's Ecoregions, 2017). This ecoregion has semi-arid moisture conditions and soils found in Saskatoon vary from sandy to heavy clay, which can result in low infiltration rates. Cold Climate considerations for *Imagine Idylwyld* include cold temperatures and deep frost depths, reducing biological activity, soil infiltration and potential damage to system components (i.e. frozen or broken pipes due to frost heave), potentially significant snowfall and associated snow storage causing soil compaction, snow removal causing damage to planting/gravel beds, etc, as well as road salt and high pollutant load in spring melt.

Vegetation Selection and Planting

Vegetation provides several functions in LID bioswales, including using water through evapo-transpiration, stabilizing soils through root development, slowing water flow in channels, and improving aesthetics in green urban spaces. The selection and survival of the plants installed is very important to ensure the LID design facility well.

Native vegetation is preferred for Idylwyld Drive, with a focus on the native prairie grasses, groundcovers and perennials. Non-invasive species must be selected. The soil types and expected water conditions (i.e. well-drained soil that is periodically inundated, vs. poorly-drained soil which is moist to wet for most of the growing season) must be considered in selecting plants that will thrive in the roadside condition. It is important to choose plants that will be attractive all year round (i.e. plants that dry-back rather than dye-back in the winter to maintain an interesting planting structure) and avoid negative perceptions of being "weedy" or unmaintained.

Factors that should be considered when selecting vegetation include:

- Plants that will thrive in the specific site conditions (climate, soil, water availability) and that grow well together with minimal life cycle cost
- Base selections on mature plant size to ensure adequate spacing.
- Maintenance requirements (mowing, pruning)
- No irrigation and minimal fertilizer needs after establishment
- Pest resistance
- Tolerance to salt and hydrocarbons from road runoff, depending on facility location
- Pollutant uptake capacity: nitrogen dioxide, sulfer dioxide, and ozone

Refer to the City of Saskatoon *Low Impact Development: Design Guide for Saskatoon*, November 2016.



A - A' Typical Vegetated Bioswale (landscape buffer ≥ 1.25m)





Figure 6.10 Typical Landscape Boulevard (Bioswale) Cross Sections

Continues on next page ►►













 ${\it Cross\,Section\,A-A':\,Between\,23rd\,Street\,West\,and\,23rd\,Street\,East}$



Cross Section B-B': Between 22nd Street and 23rd Street West

Figure 6.11 Cross Sections: North Study Area





 ${\it Cross\,Section\,C-C':Between\,Auditorium\,Avenue\,and\,22nd\,Street}$



 $Cross\,Section\,D\text{-}D^{\prime}\text{:}\,Between\,20th\,Street\,and\,Auditorium\,Avenue$

Figure 6.12 Cross Sections: South Study Area



20TH ST INTERSECTION LOOKING NORTH

Conceptual Rendering, final design and materials will be identified at the detailed design stage



Figure 6.13 Streetscape Perspective: 20th Street Intersection

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@ AUDITORIUM AVENUE LOOKING NORTH

Conceptual Rendering, final design and materials will be identified at the detailed design stage



Figure 6.14 Streetscape Perspective: Auditorium Avenue

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22ND ST INTERSECTION LOOKING SOUTH

Conceptual Rendering, final design and materials will be identified at the detailed design stage



Figure 6.15 Streetscape Perspective: 22nd Street Intersection



23RD ST INTERSECTION LOOKING SOUTH

Conceptual Rendering, final design and materials will be identified at the detailed design stage



Figure 6.16 Streetscape Perspective: 23rd Street Intersection

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GATEWAY FEATURE

- 1. Beacon lighting
- 2. Coloured metal panel sides (colours shown not representational) - may incorporate artwork / writing
- 3. Stone base
- 4. Integrated seating
- 5. Decorative paving band continuous through streetscape, may incorporate writing / storytelling





Figure 6.17 Gateway Concept



GATEWAY CONCEPT DESIGN

Underlying all aspects of the streetscape design is the goal to achieve places that are safe, comfortable and attractive for all users through all seasons, day into night. The intersections at 20th, 22nd and 23rd will feature distinct gateway conditions that engage users and enliven the spaces while celebrating the life and culture of Saskatoon. These are opportunities to create statement moments that both unite the ldylwyld streetscape corridor as well as create gateway conditions to the adjacent neighbourhoods. While each gateway shall have its own unique expression, there is a desire to have them be of a similar family and coherent with the wayfinding and street furniture and materials throughout the corridor.

The concept idea being developed addresses the need to achieve verticality for landmarking and visibility along the street corridor (such as views from Downtown along 20th to the Riversdale gateway), while being accommodated within a limited footprint. The features must be scaled for impact considering the experience of drivers traveling through the area, while responding to the human scale and more intimate experience of pedestrians. The initial concept incorporates verticality, through tall, slender columns that may include beacon lighting, use different materials in their construction to represent the different conditions at each intersection, may include storytelling through inclusion of written language, and are seen to emerge from the streetscape itself, becoming as a ribbon in the paving and in the form of seating. Colour will be used to signify connection of the South Saskatchewan River, the city and the wider prairie landscape. Integrated light provides nighttime and year round interest.

IDYLWYLD DRIVE @ 20TH STREET

The intersection of Idylwyld Drive and 20th Street is a key gateway opportunity, both for the *Imagine Idylwyld* study area as well as Saskatoon's Downtown and Riversdale Neighbourhoods. Redevelopment on the adjacent lots offers opportunity to create iconic architectural statements, to be complemented by standalone gateway features in the public realm. To the north-west corner, which is the focal point of drivers exiting Senator Sid Buckwold Bridge, it is proposed to create a vertical landmark feature, one that is visible from Downtown along 20th Street E. Use of light will be key to make this a prominent landmark day and night, as if a beacon welcoming all to the city. At an intimate scale, the materiality of the features, incorporation of text, etc will cement the art as a gateway to Idylwyld, Riversdale and Saskatoon. Similar, smaller features would be sited to all four corners of the intersection. Refer to "*Figure 6.18 20th Street Gateway Concept*" on page 66.

IDYLWYLD DRIVE @ 22ND STREET

At the centre of the study area is highly urban intersection of ldylwyld Drive and 22nd Street. As a meeting and connecting point between Saskatoon's Downtown, Riversdale and Caswell Hill neighbourhoods, this location offers a fantastic location to celebrate the culture and daily life of Saskatoon. Responding to the ever changing nature of daily life, as seasons change, as the city grows, as the role of ldylwyld Drive evolves over time, this is an opportunity to integrate dynamic, interactive elements into the artwork, such as lights that change based on presence and movement of people, wind, temperature, etc. Such installations can bring a dynamic, vibrant quality to the streetscape, and an ongoing draw for both new and repeat visitors to spend longer to engage with the art. Refer to "*Figure 6.19 22nd Street Gateway Concept*" *on page 68.*

IDYLWYLD DRIVE @ 23RD STREET

Tying into the successful artwork and landscaping at the intersection of Idylwyld and 25th Street, there is opportunity to both continue the celebration of Saskatoon's built and natural heritage through public art that functions as part of the streetscape in fun and innovative ways, as well as mark the northern gateway of *Imagine Idylwyld*. This may take the form of landscape elements characteristic of the surrounding prairies interpreted through modern materials and technologies to celebrate the future and growth of the city.

20TH STREET GATEWAY LOOKING WEST

Conceptual Rendering, final design and materials will be identified at the detailed design stage



Figure 6.18 20th Street Gateway Concept

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22ND STREET GATEWAY LOOKING WEST

Conceptual Rendering, final design and materials will be identified at the detailed design stage



Figure 6.19 22nd Street Gateway Concept

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STREETSCAPE DESIGN

STREETSCAPE MATERIALS STREET FURNITURE & FURNISHINGS



WARM 'PRAIRIE' TONES & MATERIALS

Furnishings include a wide range of exterior features from seating and pole fixtures to bollards and litter bins. These should be custom designed and built for the site. The design aesthetic should be of a contemporary nature that may include interpretations of local prairie culture.

Furnishings may be made of:

- Natural Stone
- Stainless Steel
- Regular Steel / Milled Aluminum
- Thermally Treated timber
- Approved Synthetic Material
- Metal (treatments of surfaces and type of material should respond to the climatic demands for resistance).

















STREETSCAPE DESIGN

STREETSCAPE MATERIALS WAYFINDING & SIGNAGE



COMPREHENSIVE SIGNAGE FAMILY

Signage incorporates a strategic, modular wayfinding system that contributes to a positive user experience, comfort and safety. Further analysis as part of the detailed design should be undertaken to determine where information is needed to maximize legibility of the wayfinding system, as well as potential integration of digital and SMART systems.

There are three important type of signs to be provided within the streetscape (these do not include road signage):

- Identification signs where information about individual locations is displayed such as buildings, locations and public facilities, as well as promotion of local / city-wide events, etc.
- **Directional signs** where information is displayed to find destinations with arrows pointing in the direction of travel. These may include a hierarchy of sign types, including text, maps, etc.
- **Interpretive signs** to provide a greater level of detail information about a place, the people, etc to impart an appreciation and greater depth of experience.





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STREETSCAPE MATERIALS HARD SURFACE MATERIALS



WARM 'PRAIRIE' TONES & MATERIALS

The hardscape paving selection is to consist of a relatively uniform high quality mix of materials of varying sizes. The surface should be smooth but slip resistant and feature textured banding at key crossings or decision making points. Gateways and key gathering areas will have feature paving treatment and pattern to create a unique sense of place and arrival. Large slab paving is preferable to reduce joints which may cause issues for users of mobility aids.

Standard sidewalk treatments will extend between intersections, with colour differentiated asphalt surface to off-road bike paths. Tactile separation should be provided between sidewalks and bike paths.

Paving may be comprised of:

- Dimensioned stone pavers
- Granite and non-flaking stone
- Clay pavers











Inlets to road / Curb cut to sidewalks

STREETSCAPE DESIGN

STREETSCAPE MATERIALS PLANTING PALLET



NATIVE GRASSES, GROUNDCOVERS & WILDFLOWERS

Streetscape boulevards are designed to:

- Act as bioswales to help manage storm water
- Improve year round user comfort, and enhance the attractiveness of the street
- Offer space for basic natural functions (habitat, growth, decay, phenology)
- Celebrate and showcase the natural landscapes of Saskatchewan and Saskatoon

Urban boulevards typically offer cramped, challenging environments for growth. Careful plant selection must ensure each species is durable enough to tolerate urban conditionsheat, drought, road-salt stress, and snow piles.

To promote diversity, boulevards are to be planted with a wide variety of species. Diverse planting structure provides habitats for beneficial insects, reduces damage from periodic diseases and preserves genetic diversity.













Establishing robust native plant communities is a long term strategy for financial, social and environmental sustainability.







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NEXT STEPS









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COMMITTEE OF COUNCIL & CITY COUNCIL: PRESENTATIONS

The final design and report will be presented to the Committee of Council and City Council in June 2018. This will be the final task for the current *Imagine Idylwyld* project.

FUTURE TASKS

The following outlines next steps beyond the scope of this project:

Detailed Roadway & Streetscape Design

- Undertake a detailed assessment of utilities in the right of way, including their need for rehabilitation or replacement, and whether this should occur at the same time as reconstruction of ldylwyld Drive.
- Coordination with all relevant stakeholders responsible for the operations and maintenance of the streetscape, including (but not limited to):
 - Snow storage and clearance
 - Street cleaning
 - Road, streetscape and feature lighting
 - Waste & Recycling collection
 - Road Signage
 - Wayfinding Signage
 - Branding
 - Irrigation and maintenance of soft landscape
- Detailed Traffic Accommodation Plan, including individual conversations with each landowner and business owner with direct access to ldylwyld Drive to determine which driveways can be closed in the short term along with reconstruction of the street.
- Survey to confirm property lines and elevations.
- Detailed roadway design.
- Detailed streetscape design.
- Gateway (Artwork) design.

Approvals, Policy & Funding

 In late 2018 or early 2019, the Major Transportation Funding Plan, including a list of prioritized projects will be provided to City Council for discussion. The implementation timing of the improvements to the Idylwyld corridor will be included in this future report.





