

FORT ST. JOHN DOWNTOWN ACTION PLAN

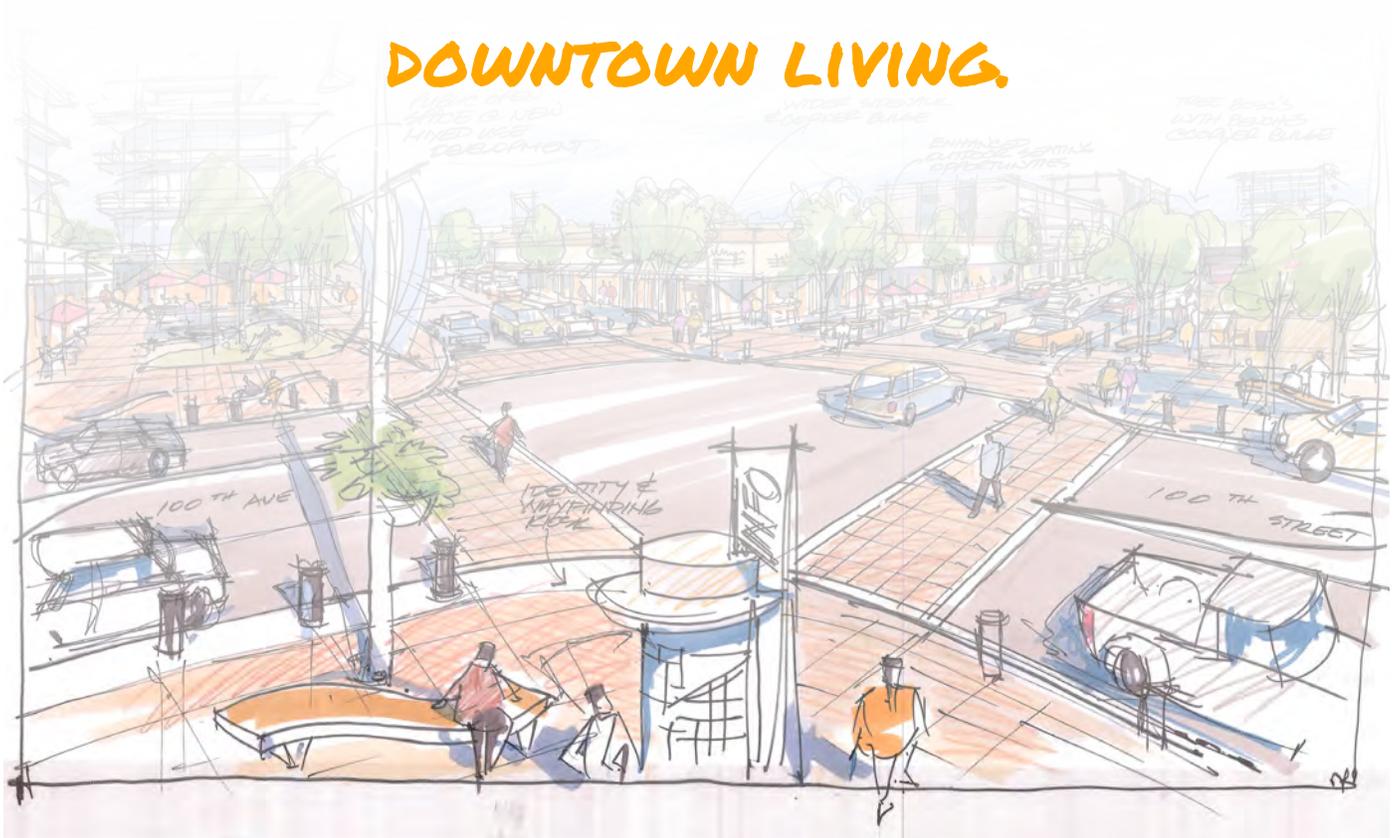


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BY 2040 FORT ST. JOHN WILL BE...

**A COMPACT, MIXED USE, PEDESTRIAN +
TRANSIT ORIENTED URBAN PLACE THAT
IS THE SOCIAL, ECONOMIC + CULTURAL
HEART OF THE COMMUNITY AND
WHERE THERE ARE OPPORTUNITIES FOR
DOWNTOWN LIVING.**



PART I: INTRODUCTION

Across North America, communities are rediscovering the importance and value of their downtowns. Over the last few decades, many Downtowns went into decline as the format of retail shifted to malls and big box stores and cities spread away from their central core. But recently, many cities have begun to feel that some things were missing – the sense of community, pride of place, somewhere to call the heart of the community, a bustling centre for activity and entertainment. As a society, we now realize that thriving downtowns add a tremendous amount of value to our communities, and that in our rush to embrace new forms of commercial development we had neglected one of our most important assets.

The downtown has always been the economic, social and cultural heart of Fort St. John and an important part of the community's overall identity. While downtown has seen some decline over the past few years, it is now poised to revitalize. Driving revitalization is the significant growth anticipated for the city, the number of development opportunities in

the Downtown, Council's prioritization of the Downtown for growth and investment, and, most importantly, the community's genuine passion and commitment to improving its downtown. This Plan is designed to help facilitate the transformation of Downtown from mediocrity to the thriving heart of the city.

DOWNTOWN IS A PRIORITY

The importance of downtown was reinforced by Council through the adoption of the 2011 OCP which positioned the Downtown as the centerpiece of the City's overall growth management strategy. Acting on OCP priorities, Council initiated a comprehensive three-phase process for Downtown Planning premised on enhancing the Downtown as the social, economic and cultural heart of the community. This plan reflects the sense of urgency to embrace the considerable economic opportunities and growth prospects Fort St. John is experiencing, and to create a healthy and economically vibrant downtown as the cornerstone of a sustainable and liveable community.

FORT ST. JOHN ON THE RISE

Fort St. John has been one of the fastest growing municipalities in the province and the City is expected to continue to grow at an even faster pace over the coming years. This is in large part due to the significant growth in the resource and energy sectors, including the Site C hydroelectric project approved by the Province on December 16, 2014. With this resource and energy activity comes jobs and people, many with young families wishing to find a great community to match great employment prospects.

A successful and vibrant downtown with a mix of opportunities to live, work, learn and play is a community's most important amenity, and is essential to attracting and maintaining Fort St. John residents, especially young families. It is also key to sustaining a vibrant and diverse economy over the long term, as the City becomes the economic heart of Northern BC.

THE DOWNTOWN HAS GOOD BONES

At present, downtown Fort St. John includes many aspects representative of the economic, social and cultural heart of the community, and it

has great potential to respond to the growing needs of existing and future residents. While the Downtown has had its fair share of challenges, there still exists a lively daytime atmosphere, in part, due to the number of existing well-

established offices, services and unique, locally-owned stores and cafés.

It will be important for the Downtown Action Plan to build on these existing business activities and successes in the Downtown, and to differentiate them from, as opposed to compete with, the more auto-oriented and 'big-box' retailers on the periphery. The downtown also houses some of the City's key civic institutions, namely City Hall and the North Peace Cultural Centre, which provide a solid civic presence and foundation of activity in the Downtown.

The existing grid street and laneway network and number of existing street-fronting and pedestrian-oriented buildings provide 'good bones' and a solid structural foundation for future growth and intensification in the Downtown. The large number of vacant sites, such as the one at 100th St and 100th Ave and the former hospital site, represent significant opportunities to demonstrate the Downtown vision through early wins. Together, all of these attributes provide significant opportunities for enhanced downtown vitalization and reinvestment.

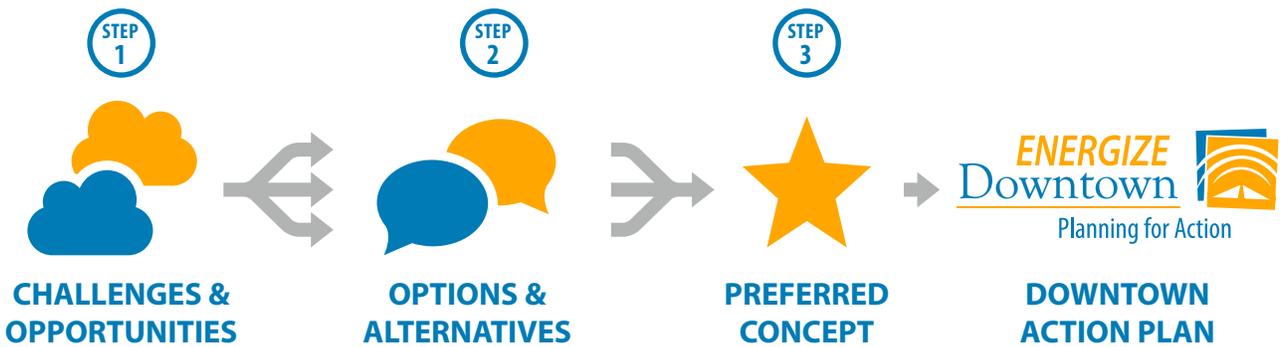
Fort St. John is at an important crossroad. The City is undergoing rapid growth and this is expected to continue into the foreseeable future. Downtown is the centerpiece of the City's overall growth management strategy, and now is the time to plan this growth to achieve short, medium and long-term community goals.



PLANNING PROCESS

This Plan is the result of a robust three-phase process that involved the community and stakeholders throughout. Phase 1 of downtown planning involved detailed technical baseline analysis of existing and future scenarios for transportation, land use and development, infrastructure, urban design, population and demand for commercial and residential uses. This analysis is presented in detail in the Phase 1 Inventory and Analysis Baseline Report.

Building on the vision and goals established in the 2011 OCP and the detailed technical work completed in Phase 1 of the process, Phase 2 (called 'Energize Downtown') identified a range of planning and design concepts for public and private realm development through extensive public engagement, described in greater detail in the Appendix. These concepts formed the basis for development of this Action Plan and By-law in Phase 3 – which includes the development policies, design guidelines, priority capital projects and implementation framework.



PLAN OVERVIEW

The Plan starts with the Five Fundamentals that need to be in place for a successful downtown:

1. **A multi-modal transportation system** that prioritizes pedestrian safety and comfort, supports transit and cycling and gracefully accommodates vehicles;
2. **A compact mix of land uses and activities** that can generate the strong customer base that downtown businesses need to thrive, while also supporting safety with more ‘eyes on the street’;
3. **A high quality public realm** designed for a winter city that provides the high quality pedestrian environment and visual interest that attracts and encourages people to spend time downtown;
4. **Community, Culture and Arts** that create a family-friendly downtown that is culturally diverse, exciting and welcoming for everyone; and,
5. **Creating economic conditions for successful development** so that downtown development becomes more attractive as a place to do business for developers.

Together, using the Five Fundamentals to guide planning, development, and infrastructure decisions will result in an energized Downtown. To support the Five Fundamentals, the Plan includes 10 Big Moves – these Big Moves are a set of catalyst projects, public investments and policies that together will transform the heart of Fort St. John into the Downtown that people said they want during the Energize Downtown process.



Photo: Picturebc.ca

HOW TO USE THIS PLAN

This plan includes information about *what* the City should and will do, *why*, and *how* (policies and actions).

Context, background information, and input used to inform the objectives, policies, and actions. This information explains the ‘why.’

O 1.1 Objectives describe the intended outcomes of policies and actions. In other words, objectives describe what this plan should achieve.

P 1.1.1 Policies direct City staff to guide long-range planning, evaluate new development proposals, and make infrastructure and investment decisions. Policies may also direct the City to advocate for or work with partners on areas outside of its jurisdiction.

A1. Actions include one-time regulatory updates, capital projects, and organizational actions needed to implement this plan.



When you see this icon, a related plan or section of this plan contains the specific policies and actions referenced.

PART II: FIVE FUNDAMENTALS

OF A GREAT DOWNTOWN

It's easy to recognize a successful downtown when you see one – a bustling mix of people, brimming with excitement, a variety of shops and attractions, a choice of cultural entertainment, and a feeling of safety surrounded by others. Downtown should provide a unique set of services and experiences that people can't get elsewhere.

Downtown Fort St. John already has some of the elements for a successful downtown, and this Plan is geared towards addressing the gaps. Improving economic conditions in the Downtown is fundamental to the future success of the Downtown and the City of Fort St. John as a whole. Vacant sites and storefronts,

unkempt properties, limited activity in some seasons, and decreased variety in shops all lead to a decline in sales – undermining the charm and potential of downtown Fort St. John.

Success for the Downtown comes down to one very simple thing – **lots of people on foot.**¹ A successful downtown is therefore geared to pedestrians and other human-powered modes of transport and what these people need and want. The following describes a fundamental set of related requirements for attracting those people in order to create a successful downtown in Fort St. John.

1 This can also include cyclists, wheelchairs, elder scooters, and skateboards.



1 A MIX OF HIGH DENSITY LAND USES

A successful downtown needs to attract plenty of people throughout the day and into the evening past usual business hours. This means that Downtown must include a variety of high density land uses. Not only does this large number of people support business success and create vitality on the street, but it also adds a measure of safety to the Downtown because there are more ‘eyes on the street.’

Ideally, the mix of people downtown is made up of employees, visitors, and residents. That way, the streets are busy throughout most of the day and night, never feeling unsafe and abandoned. We can distinguish between the needs of three types of people downtown:

1. **Visitors** are attracted to the Downtown, because it is different from other areas of the City. It has a variety of shopping, entertainment, and social activities. Some

people are attracted to the Downtown just to be surrounded by other people. This unique attraction of downtown spaces is created by the density of uses and activities that exist in a relatively compact area.

2. While some **employees** don’t have a choice of where they work, others in today’s creative economy can choose between several desirable locations. So, a downtown that is attractive for employees is also important for the employer who wants to attract the best talent. Qualities that attract employees include safe, walkable streets, high quality office space, good places to eat and drink, and interesting, comfortable places to sit and relax at lunchtime.
3. **Residents** are attracted to live in or near the Downtown because of the variety of services, proximity to employment, lifestyle considerations, and types of housing that are not available elsewhere. They must balance these advantages with considerations of safety, security, noise, and limited space.

This mix of land uses and activities in a compact area means that walking or cycling between destinations is easy, and it supports transit by supplying enough riders to make frequent transit trips feasible. Mixed land uses also means that infrastructure and resources are used more efficiently because there is less pipe, wire, and asphalt per person than elsewhere in the City.

So, the first of the Five Fundamentals is a downtown land use plan and supportive zoning that enables flexibility and supports innovative responses to implement a compact mix of commercial, civic, institutional, and housing development through gradual infill and intensification of the Downtown.

High density does not necessarily mean high rises, although some tall buildings may be appropriate in some locations to bring additional people and usable space in a relatively compact area. While stand alone commercial buildings support existing local businesses along key commercial streets in the Downtown, mixed use buildings with commercial on the ground floor and housing above are encouraged in appropriate locations as opportunities arise. One of the biggest development opportunities are the innovative forms of housing infill illustrated in the Land Use & Development Plan.



 See **Part IV: Designing the Energetic City** for the Downtown Land Use & Development Plan that describes and gives policy for a range of innovative infill typologies for the downtown.

 See the **Big Move 2: Downtown Living** for more direction on downtown housing.



2 A MULTI-MODAL TRANSPORTATION SYSTEM

Successful downtowns must be “people places.” That is, first and foremost, they must be comfortable and enjoyable for pedestrians.

Downtown Fort St. John is the heart of the community and a place for people to come together, gather, and enjoy a strong sense of community. As such, the Downtown must be a place for people first and vehicles second. The mobility system must balance and integrate the various (and sometimes competing) needs of pedestrians, cyclists, transit users, automobile users, and the movement of goods to ensure that mobility adds to, instead of detracts from, the quality and vitality of the Downtown.

Currently, Fort St. John has a crisis of people feeling unsafe as pedestrians in the Downtown area. This is partly due to after hours drinking activity and some lingering social problems. But lack of safety is mainly a result of the dominance of fast moving vehicles along

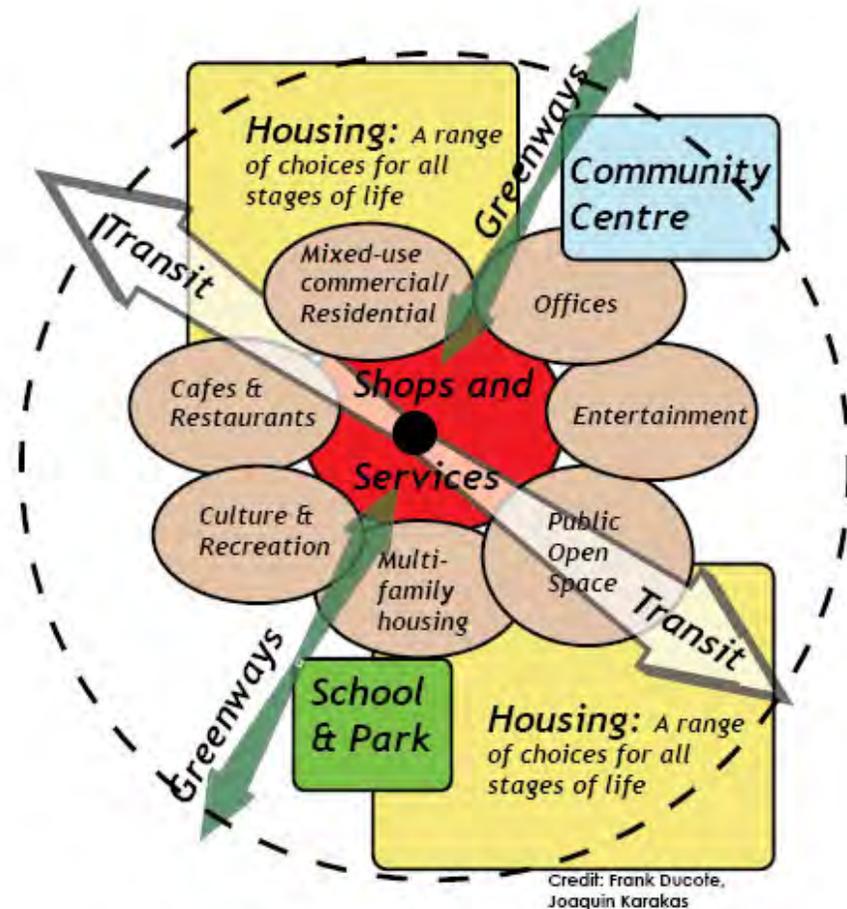
100th St and 100th Ave and a lack of adequate pedestrian and bicycle infrastructure in these areas. Transforming the transportation network so that all users feel safe and comfortable downtown is the most important part of this plan.

The vision for Downtown Fort St. John is premised on significant changes to the existing transportation infrastructure, most notably, reducing vehicle volumes and intensity along 100th St and 100th Ave, the City’s retail high streets, while creating alternative route options for traffic that would otherwise not pass through the Downtown.

Managing parking is also an important component of the plan. Large amounts of valuable real estate are currently dedicated to parking. Excess parking decreases the critical mass of people and buildings, making destinations more remote from each other and reinforcing the need to use a vehicle. Parking is of course necessary to support retail businesses, but it should not dominate the Downtown landscape. Hiding parking behind and under building, dividing large parking lots into smaller areas, landscaping them, and creating shared parking areas are some of the strategies that can be used to manage parking for a successful downtown.

 See the **Master Transportation Plan (2015)** for recommendations.

 See the **Big Move 1: Create Streets for People** for more direction on how downtown housing supports great streets.





3 HIGH QUALITY DESIGN FOR THE WINTER CITY

Public streets and open spaces are the living rooms of the community. The public realm encompasses streets, parks, plazas and other open spaces, which form an important relationship with the shops, restaurants, homes, offices, and other buildings. The public realm and its interface with adjacent development determines the identity and sense of place in a community, while playing a big role in supporting public safety and vitality. The quality and connectivity of the public realm also determines whether people feel safe and comfortable walking downtown. Without these pedestrians, there is little real activity downtown.

Creating a high quality public realm involves many ingredients. While there is no simple recipe, some key elements include:

- **Enclosure** – the framing of public spaces with buildings and street trees creates a sense of safety and security and a human scale connection with the city. Downtown buildings should be located close to the sidewalk and face the street.
- **Comfort and protection** – places to rest such as benches, and places to take refuge from the elements (snow, rain, wind, sun, cold, heat) are an important part of a comfortable downtown environment.
- **Beauty** - the design of buildings, as well as the texture and colour of materials in the public realm, attract us to want to spend time downtown.
- **Eyes on the street** – buildings with rooms and spaces that look onto public spaces and create an important form of surveillance that makes users feel safer.



A successful downtown in Fort St. John must reflect its northern climate. To be successful the Downtown needs to be an attractive place year-round. This requires careful attention to winter city design so that all modes (pedestrians, cyclists, transit users and drivers) feel safe and comfortable in winter conditions. This requires consideration of lighting, solar gain, wind, snow and ice management, pedestrian crossing distances, and sheltered spaces to keep warm.

Fort St. John's Winter City Design Guidelines, adopted in 2000, provide a good starting point for creating a vibrant downtown that is attractive and functional year-round.

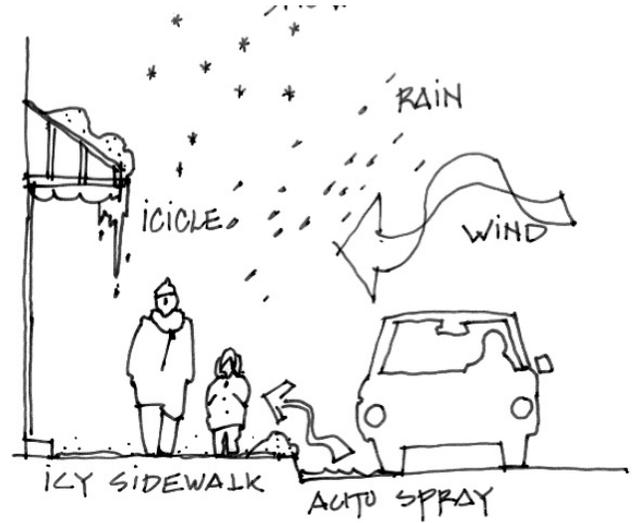
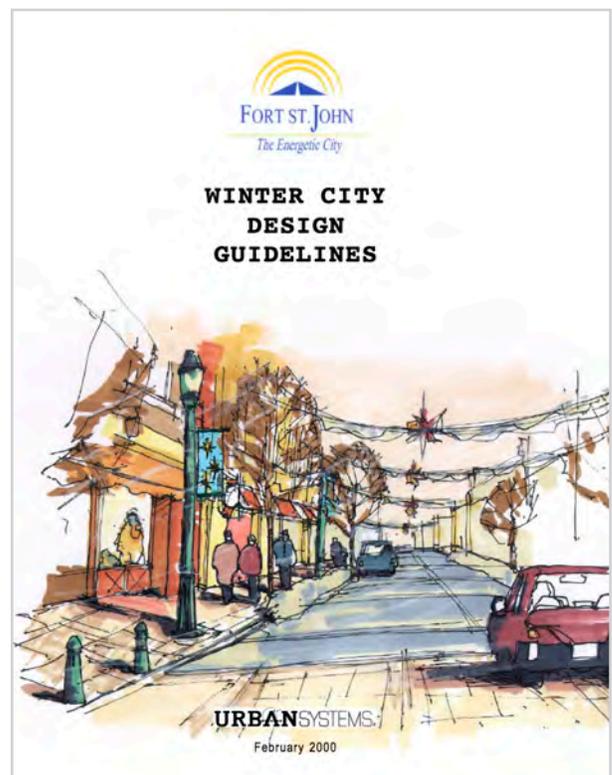


Image credits (above): Adapted from RAIC/AIA: Liveable Winter Cities, 1986 in Fort St. John Winter City Design Guidelines

(below): Fort St. John Winter City Design Guidelines (Urban Systems, 2000)

 See the **Winter City Design Guidelines (2000)** for guidelines to apply to all new development proposals.

 See the **Part IV: Designing the Energetic City** for the Downtown Streetscape & Public Realm Master Plan and the Downtown Development Permit Area Guidelines for Form & Character.





4 COMMUNITY, CULTURE & THE ARTS

To be successful, downtown must be the City's entertainment centre. Downtown must house a number of venues for artistic performance, culture, and the arts, able to host festivals, conferences, and other gatherings. The key is variety that will attract people of all ages and cultures to the Downtown on several days and nights each week throughout the year.

Public art and culture help to create a vibrant and interesting public realm. Dynamic and functional public art, such as sculptures, murals, dedicated graffiti walls, innovative street furniture, live performing arts, and buskers, all add to the sensory interest and cultural richness of downtown.

Another strategy for creating a quality public realm is to integrate programming, events, and festivals in public spaces. Some examples include:

- Multi-cultural festivals
- Multi-event/multi-venue festival
- Local Food Festival
- Urban Design Festival
- Downtown Revitalization Walk About
- ArtWalk
- Car Free Days/Block Parties to showcase and support downtown businesses
- Flash mobs/dance parties
- Health-related street events (i.e., yoga)

- Street buskers (with some City support)

Community Services and programming can also contribute to a culture of belonging and ownership. Example initiatives include:

- **Adopt-a-Block program:** groups of residents, businesses or other organizations adopt a block and take care of litter removal, graffiti, removal, adding public art and other minor streetscape improvements.
- **Jane's Walks:** a weekly/bi-weekly walking club that strolls through the Downtown (perhaps with a knowledgeable guide). The group ends up at different restaurants where they discuss elements of planning, heritage, and urban design and how the Downtown can be improved.

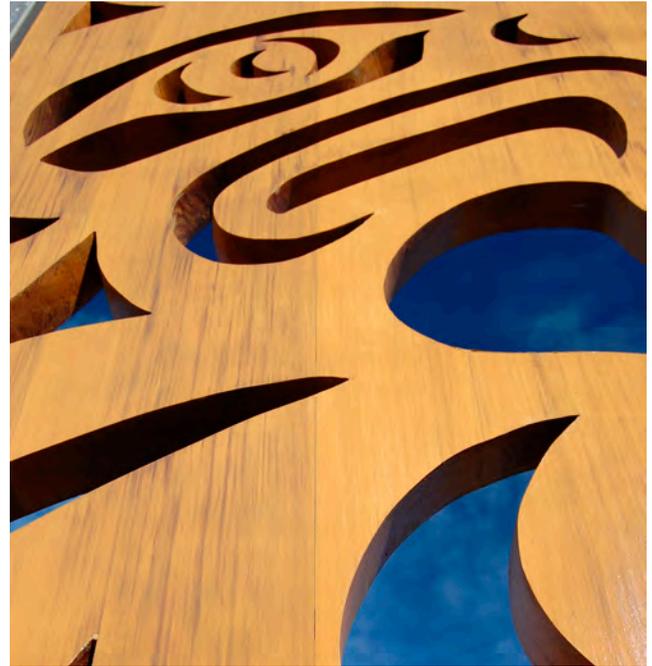
00.1 To encourage vibrant Community, Culture & the Arts.

P0.1.1 Maintain civic and community uses such as City Hall, the Library, the North Peace Cultural Centre in the downtown and enhance and potentially relocate these uses as opportunities arise.

P0.1.2 Encourage the installation of public art on or within public buildings and property in the Downtown, establish a public art program that includes requirements for public art or cash-in lieu as part of large new developments throughout the City, and support public art in the Downtown through a funding program and calls for proposals, with a process done in consultation with downtown businesses and residents.

P0.1.3 Support downtown events and festivals by accommodating road closures, such as along 100th Ave for the Moose FM Block Party, and traffic management to support on-street events.

P0.1.4 Prioritize the Downtown for investment in buildings and other infrastructure that support arts and culture.



5 ATTRACTING INVESTMENT & ECONOMIC DEVELOPMENT

Downtown Fort St. John already has some of the key ingredients for a successful downtown: A range of local serving, boutique shops and services including 2 grocery stores, civic, cultural and entertainment facilities, a decent number of office uses and jobs, and some medium density housing. However to realize its true potential, the Downtown will benefit from increasing the downtown residential population, implementing public realm and streetscape improvements included in this plan, and coordinating business retention and attraction as part of a city wide economic development strategy.

Developers often have numerous choices about where they can invest, and other commercial areas in Fort St. John and other cities compete with the Downtown. Therefore, the Downtown has to be attractive for developers and investors.

Policy changes and incentives, such as providing tax and development cost charge exemptions, and reducing or eliminating parking requirements for new development in Downtown, will encourage new development by making the economics of downtown development more attractive.

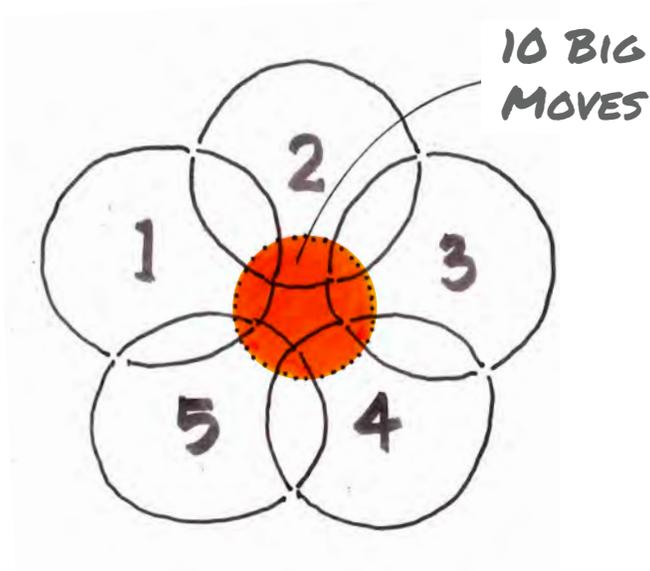
Further, prioritizing the downtown for new residential, and especially compatible commercial development, by for example giving priority to and fast-tracking downtown development proposals, and carefully managing new commercial and residential growth on the periphery of the City and through boundary expansions, will help attract private investment in the downtown.

A range of development tools and incentives to attract downtown investment are included in Part V: Implementation of this plan.



See the **Downtown Land Use & Development Plan** in **Part IV: Designing the Energetic City**





MAKING IT HAPPEN

Downtown vitalization will be a primarily market led process supported by strategic public investments and a clear and efficient regulatory and approvals process. The vision for the downtown will be implemented through a combination of private and public investments that will occur gradually over time, as guided by the policies and actions of this plan.

In this way, the Five Fundamentals work together in a mutually reinforcing manner, and are implemented by the policies and actions identified throughout this plan and prioritized, phased and funded as described in **Part V: Implementation Framework**.



See **Part V: Implementation Framework**

PART III: TEN BIG MOVES

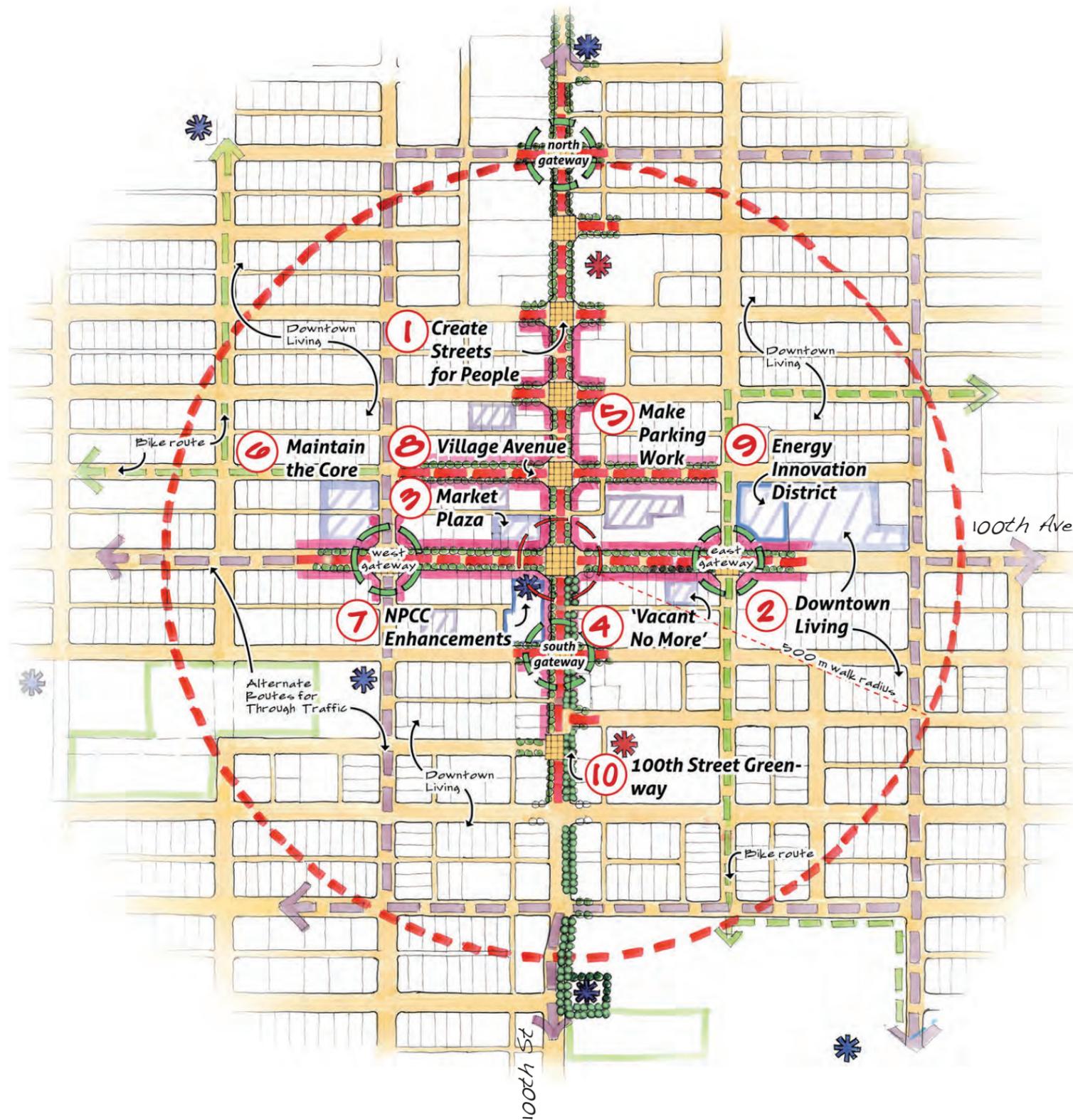
TO ENERGIZE DOWNTOWN

Community and stakeholder feedback shaped the '10 Big Moves' to Energize Downtown. Community and stakeholder engagement informing the 10 Big Moves is included in the Appendix. The 10 Big Moves support the Five Fundamentals with catalyst projects, public investments, and policies that together will transform the heart of Fort St. John.

The 10 Big Moves support choice in housing, mode of travel, location of work, and opportunities for public gathering and shopping.

The 10 Big Moves also transition Downtown from a vehicle thoroughfare into a pedestrian-oriented destination by slowing the pace of traffic in the Downtown core to create a more comfortable, safe, and attractive pedestrian environment with vibrant streetscapes and opportunities for community gathering.

10 BIG MOVES TO 'ENERGIZE' DOWNTOWN



- 1 CREATE STREETS FOR PEOPLE**
 - Provide comfortable, safe, and attractive streetscapes and public gathering spaces in the Downtown.
 - Slow the pace of traffic in the Downtown and create alternative routes for through traffic.
- 2 DOWNTOWN LIVING**
 - Create more opportunities for people to live in the Downtown to support local businesses/ services and encourage vitality and more activity on the street past usual business hours.
 - Encourage housing infill and redevelopment at higher densities including housing located on top of downtown businesses and services.
- 3 MARKET PLAZA**
 - Develop a mixed use urban plaza with programming and facilities for public events such as markets, festivals and concerts to be held year-round.
 - Locate the plaza in a prominent location as a gateway feature and activate with adjacent active retail and high density housing.
- 4 VACANT NO MORE**
 - Encourage development of vacant sites, including City owned, contaminated and other prominent sites.
 - Redevelop vacant sites with buildings and uses that showcase the future vision for downtown and implement interim uses/improvements until such time as they are redeveloped.
- 5 MAKE PARKING WORK**
 - Ensure convenient public and private parking to maximize accessibility to downtown businesses, services, jobs and housing.
 - Maximize on-street parking and access within each block.
 - Allow flexibility in the provision of private parking to be responsive to market needs.
- 6 MAINTAIN THE CORE**
 - Maintain lanes in the core area to provide access to off-street parking and consider active uses and events like "art in the lane."
 - Provide and maintain sidewalks on both sides of the street in the core area to ensure safe and convenient connections.
- 7 NPCC IMPROVEMENTS**
 - Incorporate a terraced plaza at the south entrance and increased glazing on the north east corner to enhance and better connect the North Peace Cultural Centre to adjacent streets and open spaces.
 - Consider more substantial renovations or even redevelopment of the NPCC in light of new uses and programming envisioned for the Centre.
- 8 VILLAGE AVENUE 'FESTIVAL STREET'**
 - Undertake streetscape improvements and prioritize pedestrian oriented mixed use development on 101 Ave between 102 and 98 Streets.
 - Incorporate design enhancements and programming to support 101 Ave as the City's 'festival street' and 'block party' venue.
- 9 ENERGY INNOVATION DISTRICT**
 - Encourage a mix of education and employment uses on part of the former hospital site to showcase local and regional energy and resource sectors.
 - This could include a university satellite campus, energy sector offices, a mix of housing (including student housing) along with street level shops and services.
- 10 100TH ST GREENWAY**
 - Create and maintain a direct, comfortable and safe pedestrian and bicycle 'greenway' connection between the Downtown core and Centennial Park, along the east side of 100th St.



1. CREATE STREETS FOR PEOPLE

Creating a walkable downtown with vibrant streets and open spaces is a top priority for Fort St. John, because community walkability helps attract investment and economic development. Creating a safe and comfortable walking environment means addressing pedestrian safety and convenience through public realm and infrastructure improvements such as:

- Slowing the speed and reducing the volume of traffic traveling through Downtown to improve safety and comfort for people on sidewalks.
- Adding more adequate sidewalks, pedestrian crossings, attractive plazas, and open spaces to provide pedestrian convenience and destinations.

To achieve 'streets for people,' this plan contains objectives and policies to slow downtown traffic, route traffic elsewhere, create an attractive streetscape, and catalyse improvements with a reconfiguration of Downtown's main

intersection at 100th St and 100th Ave. These are contained within the recently adopted Master Transportation Plan and the Downtown Streetscape & Public Realm Master Plan. These two plans include direction to:

- Incorporate additional pedestrian crossings with pedestrian activated signals.
- Incorporate additional signalized intersections in the Downtown.
- Increase crossing times for pedestrians at signalized intersections.
- Enhance pedestrian crossings with better markings and signage.
- Incorporate pedestrian lighting.
- Reduce travel lane widths while designing for winter conditions.
- Reduce traffic speeds in the Downtown core area.



O 1.1 To slow down(town) traffic to create a more comfortable and safe pedestrian environment in the Downtown area.

A1. Reconfigure 100th St and 100th Ave in the Downtown core area from a four lane condition to a three lane condition with alternating left turn lanes and median snow storage and other streetscape improvements as detailed and according to the phasing indicated within the Downtown Streetscape & Public Realm Master Plan.

P 1.1.1 Coordinate street improvements with necessary infrastructure improvements to maximize construction/cost efficiency and minimize disruptions

O 1.2 To create and maintain attractive, safe, and comfortable downtown streetscapes

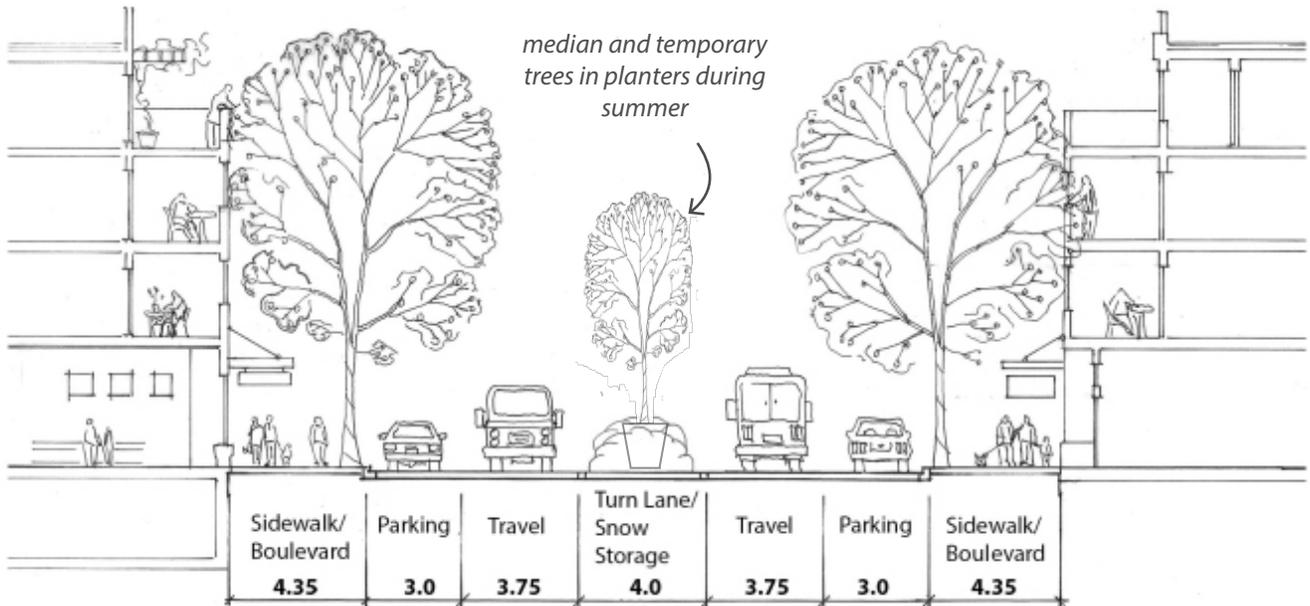
P 1.2.1 Undertake a downtown core maintenance program to keep sidewalks free of dirt and snow and provide snow removal from lanes in strategic/priority maintenance areas

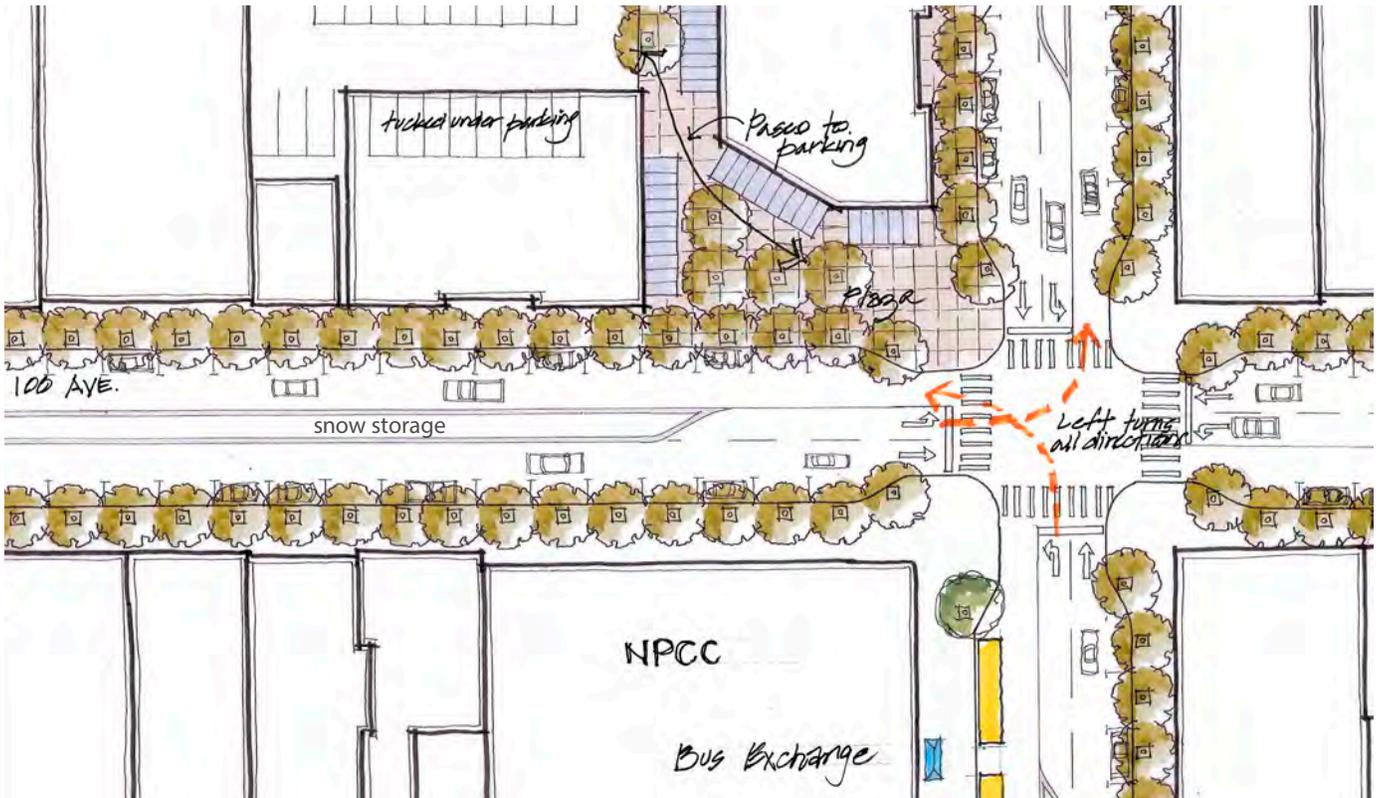
O 1.3 To provide comfortable, benches, pedestrian lighting, and other furnishings.

O 1.4 To maintain and enhance the street tree canopy downtown.

O 1.5 To reduce driveway access and encourage/utilize lane access for vehicles

A2. Implement a maintenance program for core lanes in the downtown that provide parking access and servicing to downtown development.





Plan and perspective views of 3-lane configuration at 100th St and 100th Ave intersection. This configuration would maintain significant through capacity and access while enhancing the pedestrian experience in the Downtown core area.

A3. Update the Zoning Bylaw to require rear lane access.

O 1.6 To create alternate routes for through traffic:

- » To ensure convenient, efficient, and safe travel by motorists and commercial truck traffic to, from, through, and within the City;
- » To support the Downtown as a pedestrian oriented urban place with vibrant streetscapes and community gathering places;
- » To support downtown businesses and services, arts and culture uses, and downtown living; and
- » To support alternate travel modes including walking, transit, and cycling.



P 1.6.1 Implement streetscape and network reconfiguration recommendations in and impacting the downtown contained in the Master Transportation Plan (Urban Systems, 2015).



 See the **Master Transportation Plan (2015)** for detailed recommendations.

O 1.7 To encourage active, pedestrian oriented uses and activities fronting on to 100th St and 100th Ave in the Downtown area

P 1.7.1 Implement the Downtown Development Permit Area Guidelines for Form & Character.



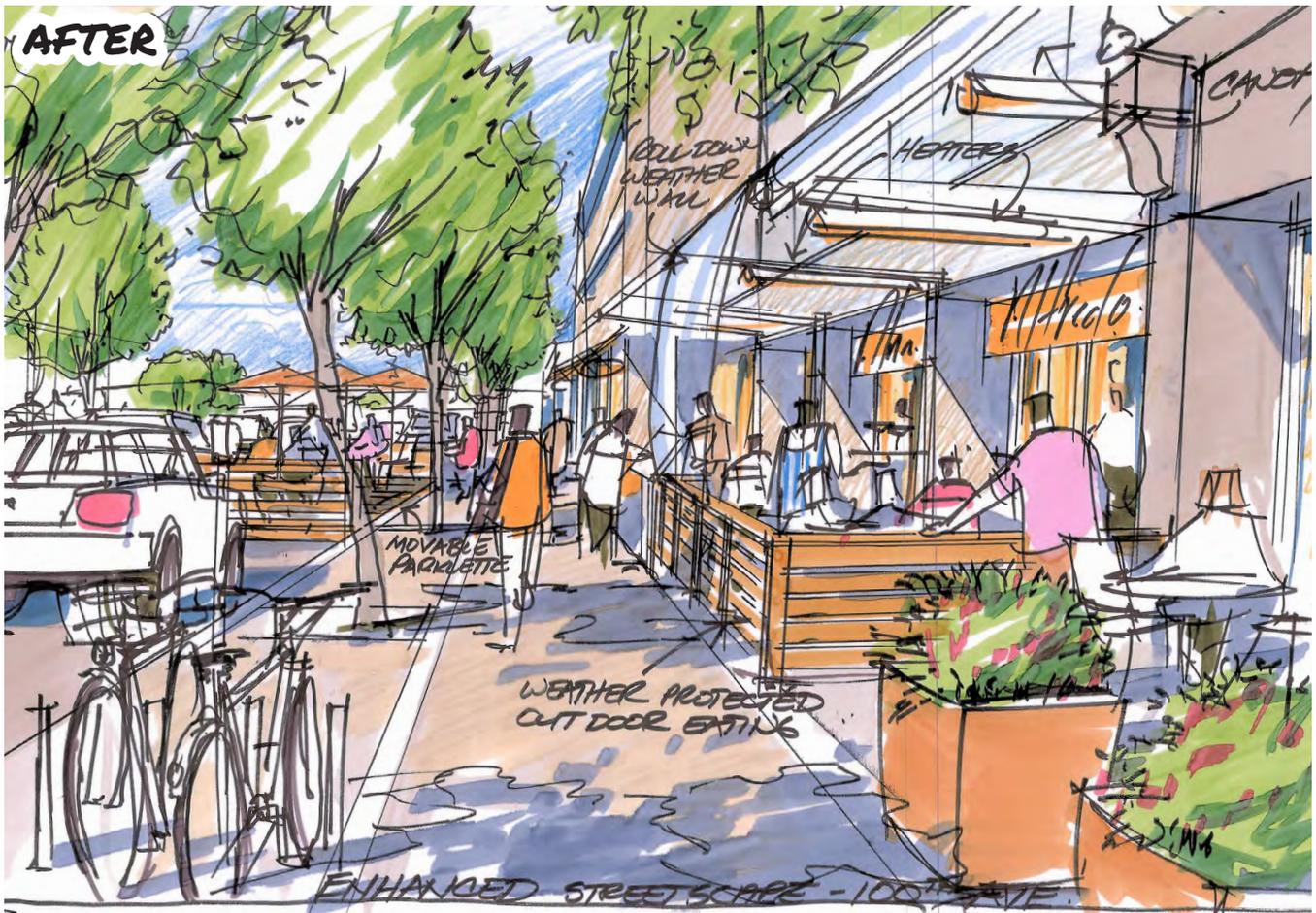
Photo Credit: Picture BC

O1.8 To encourage development of 'Restaurant Row' along 100th Ave as part of an arts, culture, and entertainment district.

P1.8.1 Encourage street fronting businesses including sidewalk patios, cafés, and displays through new and renovation of existing development.



See the **Part IV: Designing the Energetic City** for the Downtown Development Permit Area Design Guidelines for Form & Character and see policies and actions in **Part IV: Designing the Energetic City** Downtown Land Use & Development Plan.





2. DOWNTOWN LIVING



Creating and encouraging a range of opportunities for downtown living will help generate a critical mass of energy or ‘body heat’ in the Downtown past usual business hours. This will contribute to street vitality throughout the day, safety in the evening, and will support local businesses and services including local arts, culture, and entertainment.

Opportunities for downtown living include:

1. Housing on top of street grade commercial uses in mixed-use developments, and
2. Compact ‘street-fronting’ townhouses and apartments on ‘infill’ and vacant redevelopment sites within the Downtown.

The Market Demand Study completed in 2012 as part of the *Phase 1 Downtown Planning Baseline Inventory and Analysis Report* forecasted a significant amount of residential growth for the city as a whole.



See the **Downtown Planning Baseline Inventory & Analysis Report (2013)** for more details.

The study forecasted the City's population to increase from 20,340 in 2011 to 31,100 by 2031 and roughly 35,000 by 2036.

Housing demand associated with these population forecasts were as follows:

- **Single Detached:** 3,516 units or an average of 146 units/year.
- **Townhouses, Duplexes, Row-houses:** 1,200 units or an average of 50 units/year.
- **Apartments:** 1,151 units or an average of 48 units/year.

Development data from 2014 indicates that these housing demand forecasts are currently being exceeded.

O 2.1 To meet growing housing demand.

O 2.2 To support residential infill development in single-family detached residential neighbourhoods surrounding the Downtown core.

O 2.3 To support residential development on underutilized and vacant sites downtown.

O 2.4 To support the redevelopment of single detached homes into higher density residential forms as housing demand continues to grow.

O 2.5 To encourage stand alone residential uses on vacant sites, except on key retail streets as identified in the Land Use & Development Plan.

O 2.6 To support financially-viable and more affordable housing choices.



Compact mixed use buildings with shops and services below and housing above creates greater housing choices in the community and more 'body heat' in downtown.



O2.7 To encourage innovative and practical/affordable approaches to parking, such as tuck under, under building structured parking, shared parking where appropriate, and where possible, underground or partially underground structured parking.



O2.8 To encourage a range of innovative, affordable, attractive, family-oriented, and ground-oriented forms of housing in the Downtown through infill and redevelopment.

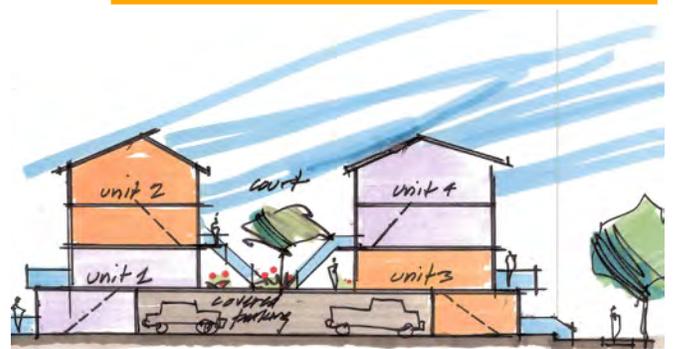
O2.9 To use tax exemptions, DCC holidays, parking relaxations, and other development incentives to encourage housing development.

O2.10 To support a safe and attractive streetscape by encouraging housing infill that presents a friendly face to the street and locates parking behind or underneath buildings (and never front) with lane access.

 See the **Part IV: Designing the Energetic City** for the Downtown Development Permit Area Guidelines for Form & Character.



Apartments and townhouses should create a “friendly face to the street” and locate parking and other “back of house” uses behind or even underneath the building.



stacked townhouses w/ covered parking



3. MARKET PLAZA

An outdoor market plaza in Downtown will provide a flexible, year-round community gathering place to support events, celebrations, markets, festivals, and concerts.

The plaza could incorporate a large but simple structure for markets and other events in the spring, summer, and fall. In the winter a sheet of ice could be thrown down for skating and hockey, which could include a downtown venue for the celebrated High On Ice festival.

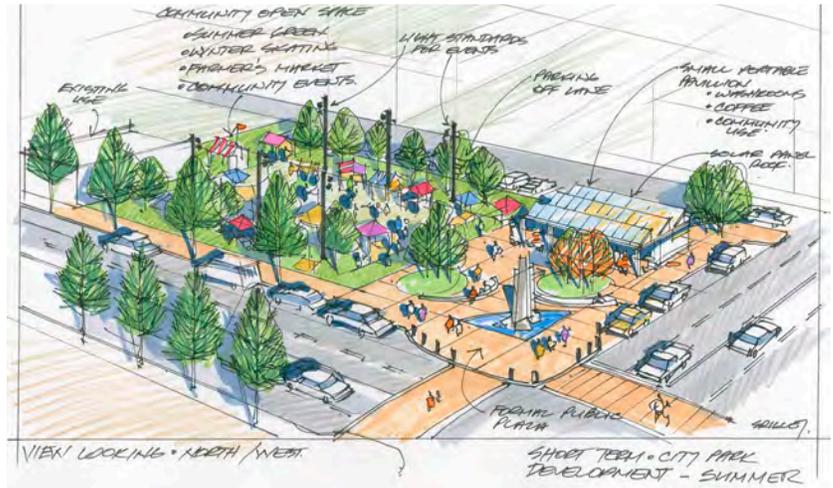
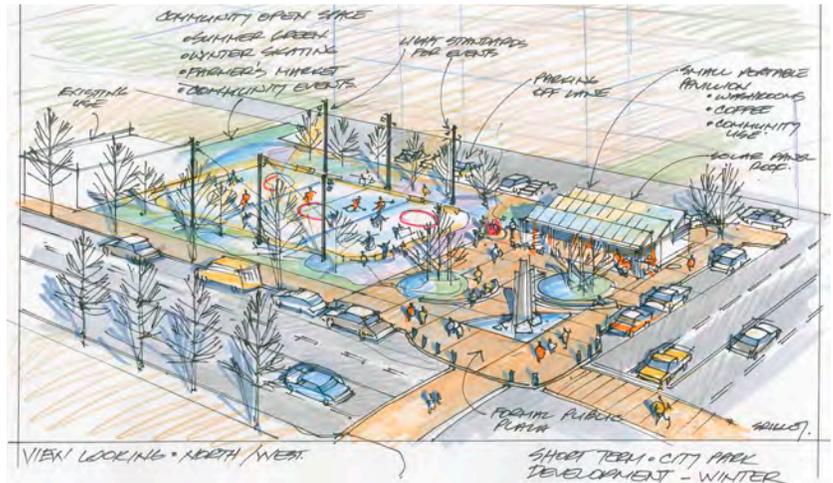
03.1 To provide a flexible community gathering place in Downtown.

03.2 To locate a market plaza in a prominent location as a gateway feature and as a unique identifier for the Downtown and the City as a whole.

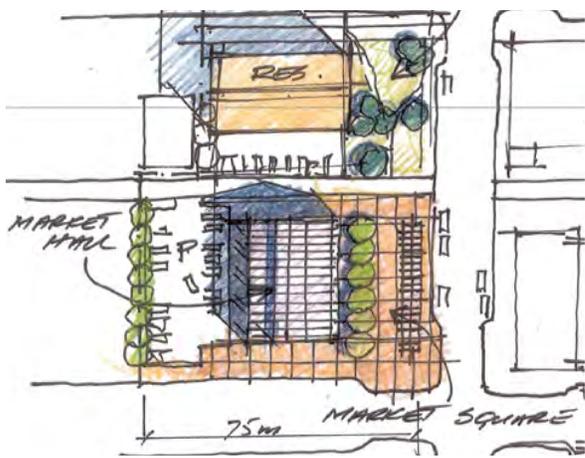
03.3 To incorporate active uses such as housing, a restaurant, and/or pub within or adjacent to the plaza would enhance and help activate the space.

P3.3.1 Consider and design the market/festival plaza as an interim use on strategic downtown sites, namely the vacant City-owned sites at old Fort Hotel site, the old Frontier site, and the former hospital site, and the former Visitors Information Centre, until such time as these sites are redeveloped, and move the market plaza to one of the other identified sites at that time.

A4. Implement the Market Plaza Conceptual Design on the Old Fort Hotel Site at 100th St and 100th Ave. as detailed in the Downtown Streetscape & Public Realm Master Plan.



The market plaza design concepts illustrated here explore the old Frontier site.



Market plaza concept developed at the downtown design charrette showing integration with adjacent apartment housing.



4. VACANT NO MORE

The Downtown has a significant number of vacant sites in prominent locations, such as the former hospital site, the old Fort Hotel site, and the old Frontier site. These, combined with a number of vacant buildings, detract from the vitality, character, and confidence of the Downtown.

Vacant sites and buildings occur for many, complex reasons, but market conditions and dynamics are a key driver. Perpetual vacancy along a street can lead to an increase in litter, blight, and crime. Surrounding properties are then plagued with lowered property values and the cycle continues. When properly cared for, vacant sites have the potential to become attractive parks, plazas, gardens, stormwater management features, and cherished community spaces.

Whether vacant and contaminated sites are developed as public, private, or public/private partnerships, and whether they are publicly or privately owned, the City has a role to play in developing and supporting implementation of short, medium, and long term strategies for these sites.

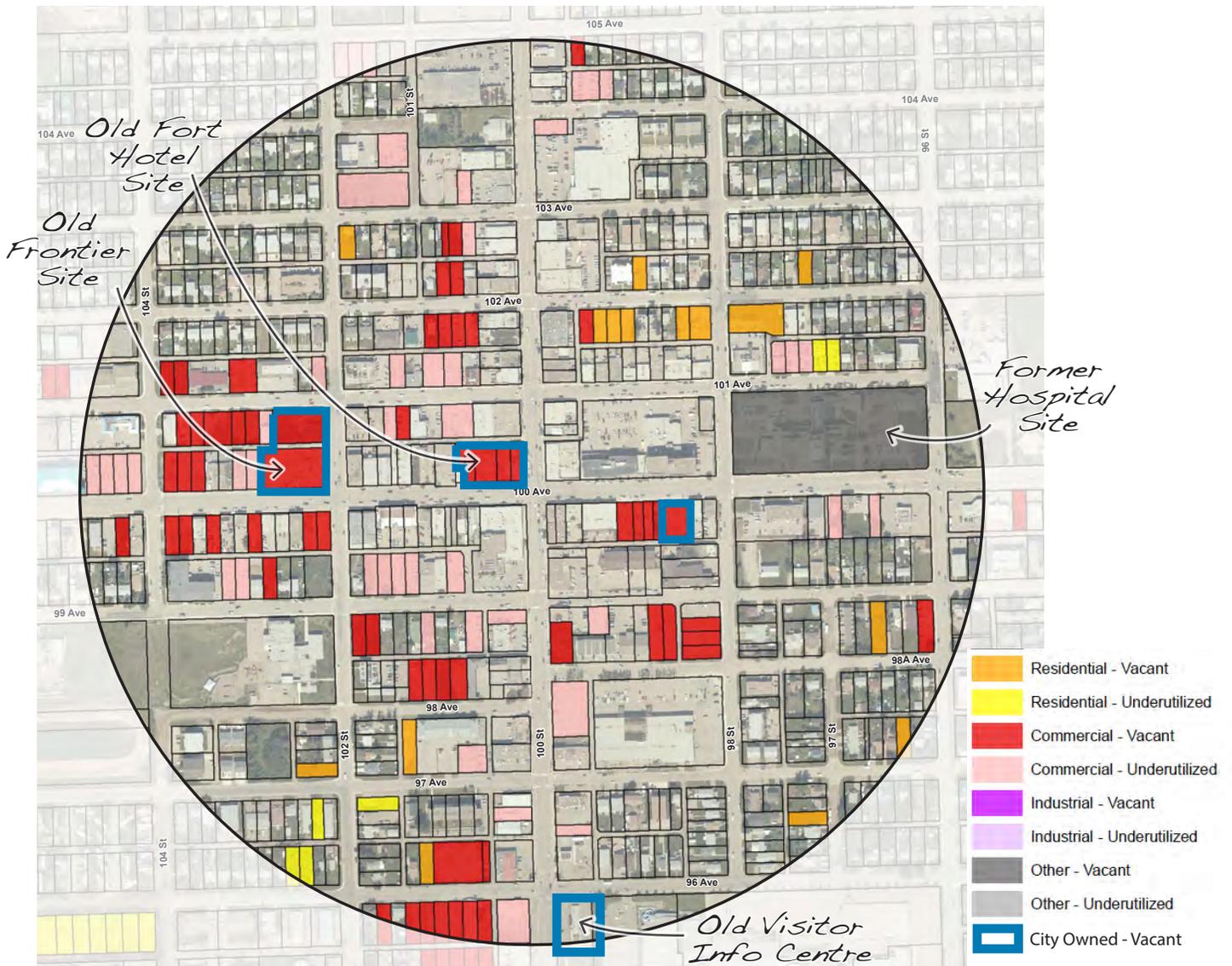
Until infill development becomes viable and downtown development becomes more desirable, there are a range of interim uses for vacant buildings and properties that could be implemented. Vacant buildings can be programmed with interim uses, such as community art displays in shop fronts. Vacant lots, including contaminated sites, can be used for parking, public gathering, and community events, such as the Market Plaza (described in Big Move 3), community gardens, art displays, and other temporary uses.

A5. Implement the Market Plaza concept as described in the Downtown Streetscape & Public Realm Master

P 4.2.4 The City will acquire strategic vacant sites in the downtown to facilitate their redevelopment in a manner consistent with the downtown Vision established by this plan.

P 4.2.3 The City will develop a Request for Expressions of Interest for the purchase of strategic City owned sites conditional to meeting City objectives as established for the downtown by this plan.

The City owns a number of vacant sites in the Downtown, shown in the figure below.



O4.3 To redevelop contaminated sites.

- P4.3.1 City Council and senior management will lobby owners of contaminated sites to remediate and redevelop their sites.**
- P4.3.2 Develop a contaminated sites strategy and information package to make landowners aware of programs and incentives that are available to support site remediation.**
- P4.3.3 Work with land owners (and the public) to identify temporary uses for the site that benefit the community until the site can be cleaned up and redeveloped, such as raised-bed community gardens, small parks or plazas, public art displays, or surface parking lots.**



O4.4 To encourage use of vacant storefronts.

- P4.4.1 Encourage interim uses, such as public art displays, to bring life and interest back to the space while it is not being used for commercial purposes.**





5. MAKE PARKING WORK

Providing adequate parking in the Downtown is a top priority to ensure convenient access to downtown businesses. Innovative approaches to off-street parking can also improve the economic feasibility of development and use the limited downtown land base more efficiently.

On-street parking located at the curb supports downtown businesses while promoting a safer pedestrian environment by creating a physical barrier between pedestrians and moving traffic. A combination of both on-street and off-street parking supports the economic viability of development projects.

O5.1 To maximize and maintain on-street parking to provide convenient access and support traditional street-fronting businesses downtown.

P5.1.1 Meter and monitor parking to ensure parking availability in key areas.



On-street parking provides convenient access to businesses and provides a barrier between moving vehicles and pedestrians.

P5.1.2 Price parking ensure an occupancy rate of roughly 80% on any one block face.

P5.1.3 Introduce centralized parking meters in the Downtown to manage public parking more efficiently and to minimize disruptions to snow removal and sidewalk maintenance.

O5.2 To enable the flexible provision of off-street parking to help support the economic viability of downtown infill and intensification developments.

P5.2.1 Encourage owners of private parking lots to share parking with neighbouring lots who need parking different times of day or week to reduce the overall amount needed.

P5.2.2 Use vacant sites for public parking as an interim use until development occurs.

P5.2.3 Consider providing public parking facilities adjacent to new public developments.

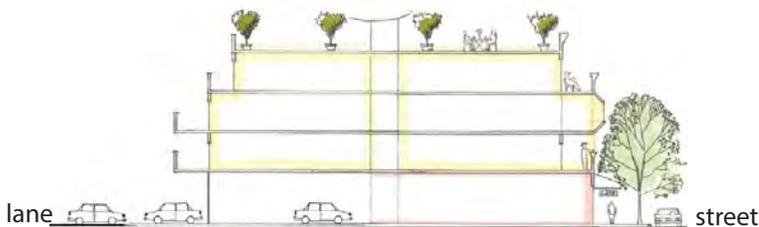
P5.2.4 Use City owned sites for paid public parking, perhaps through a public/private partnership.

P5.2.5 Consider reducing or eliminating parking requirements for residential developments and allow parking to be determined by demand.

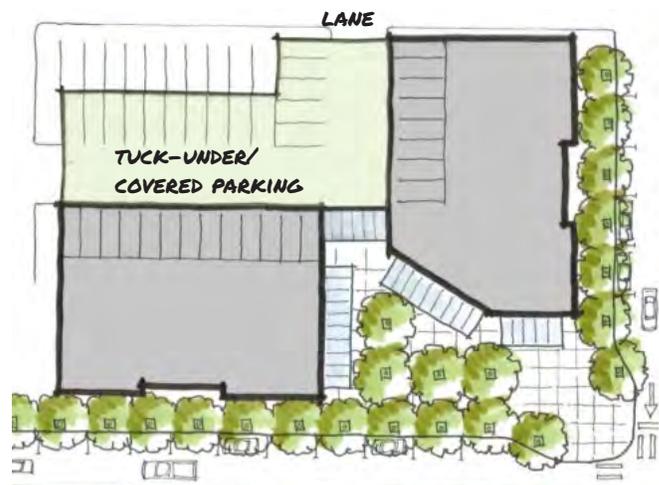
P5.2.6 Allow/require lane access for off-street surface parking to minimize impacts to sidewalks/pedestrians and enable more efficient parking layout.

P5.2.7 Ensure the incorporation of pedestrian passage-ways (paseos) from the sidewalk through to parking behind buildings when considering development proposals.

P5.2.8 Encourage the incorporation of tuck-under parking located behind buildings and accessed from the lane to maximize development potential and screen surface parking from public view when considering development proposals.



Tuck-under parking wrapped with active uses and accessed from the lane





6. MAINTAIN THE CORE

Downtown has good bones, and the existing block layout and lanes provides rear access to utilities, services, parking, and loading, while keeping the fronts of buildings attractive and accessible for people.

O6.1 To provide lane access to new and existing downtown developments, while minimizing impacts on pedestrians and maximizing building frontage and development efficiency.

P6.1.1 Maintain core lanes year-round.

P6.1.2 Consider using core lanes for active uses and events, like “art in the lane.”

O6.2 To provide safe and convenient sidewalks for pedestrians.

P6.2.1 Provide public pathways/ sidewalks on both sides of the street in the Downtown core.

P6.2.2 Use sidewalks to provide access to downtown spaces and to connect to adjacent neighbourhoods.

P6.2.3 Maintain pathways and sidewalks through street cleaning year-round, and snow and ice removal in winter.

A6. Initiate and coordinate an “Adopt-a-Block” program so adjacent business owners or tenants take ownership of cleanliness and maintenance of sidewalks.



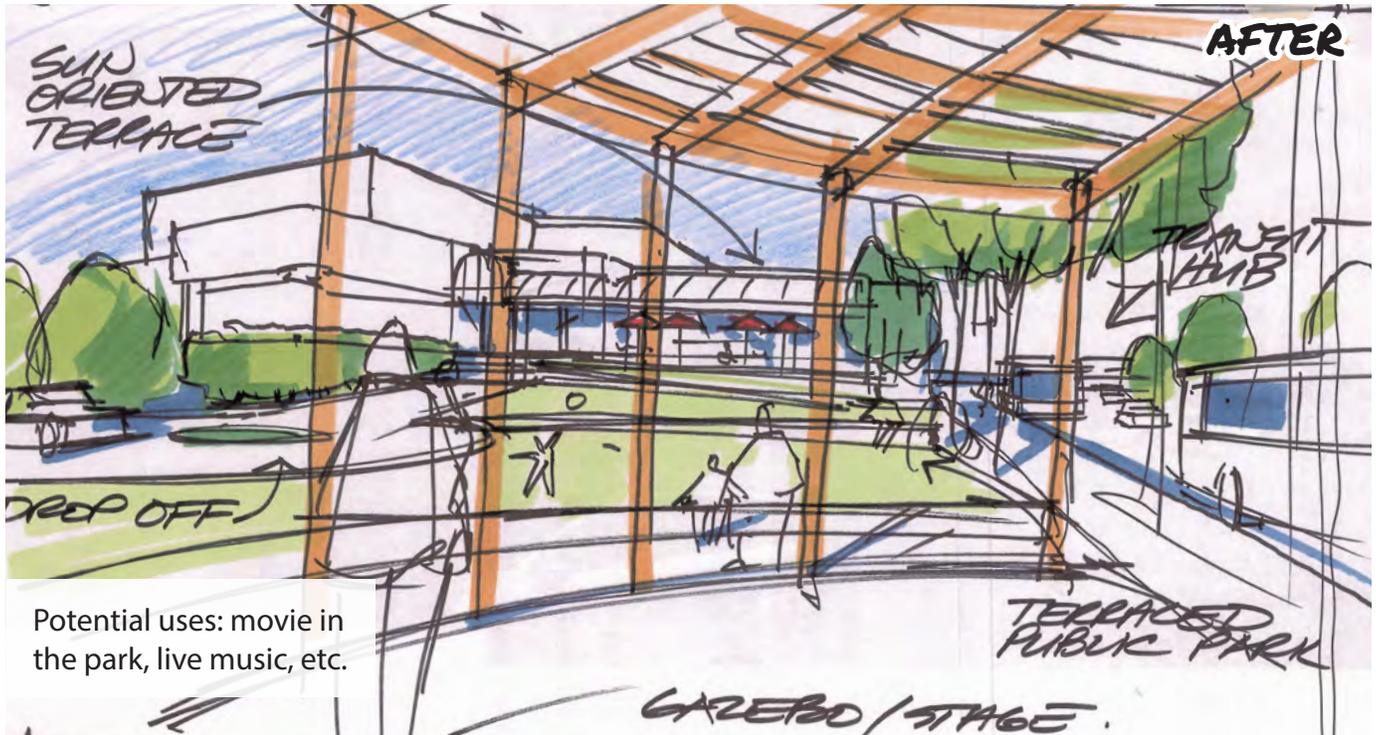


7. NPCC ENHANCEMENTS

The North Peace Cultural Centre is an important community asset located right in the heart of downtown. Practical and inexpensive retrofits could improve the Centre and support a more lively and attractive Downtown.

- 07.1 To enhance the NPCC and better connect it to the adjacent bus exchange, streetscape, and larger downtown environment.**

- 07.2 To create an attractive, south facing pocket plaza incorporated with an enhanced bus exchange.**



- A7.** Implement the NPCC Plaza as detailed in the Downtown Streetscape & Public Realm Master Plan.
- A8.** Implement facade improvements to the NPCC building along the north and east sides to incorporate more glazing and weather protection, as illustrated conceptually below, to open up the building to the street and make it more welcoming, creating visual interest and more

P7.2.1 Consider more substantial renovations, or even redevelopment of the NPCC site, for the long term.





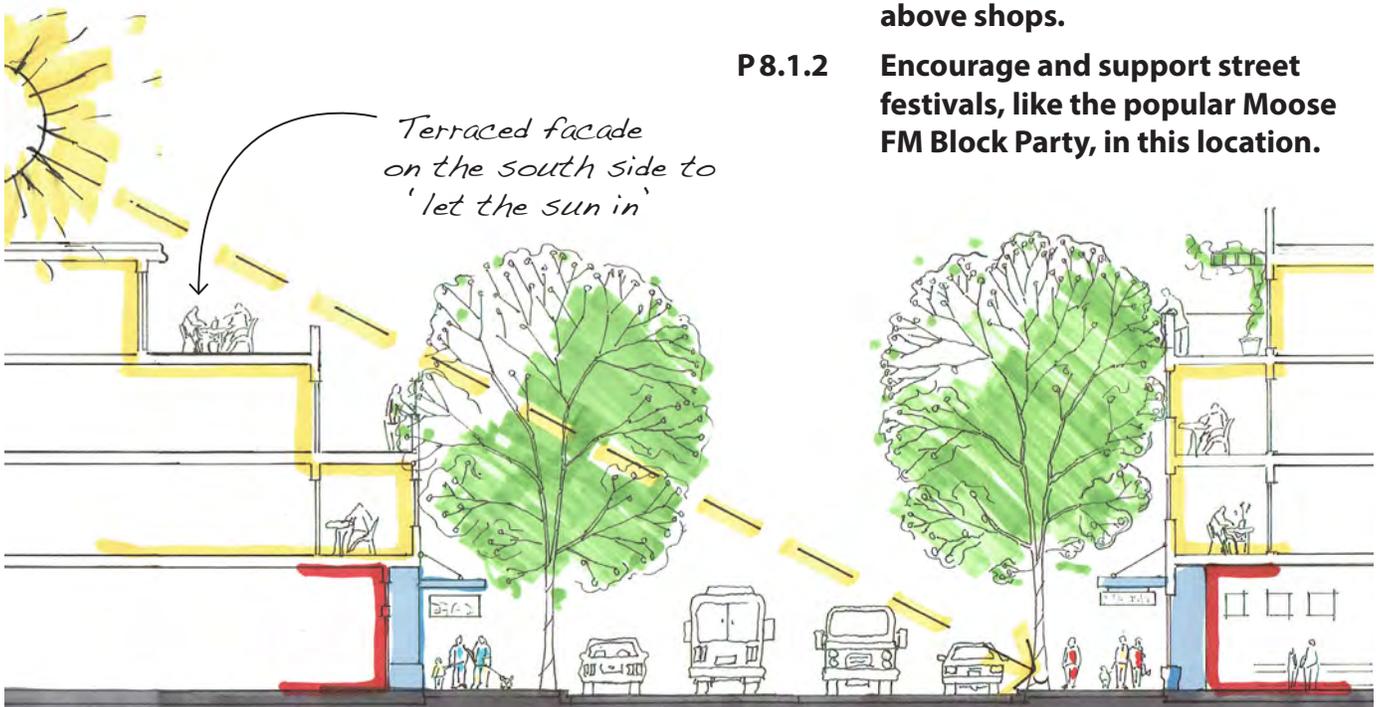
8. 'VILLAGE (101ST) AVENUE'

In contrast to the busy arterials of 100th St and 100th Ave, 101st Ave has low traffic volumes and speeds and a mixture of small shops and vacant sites. This makes 101st Ave a great site for a pedestrian-oriented village area.

O8.1 To create a more quaint and pedestrian oriented village high street for two blocks between 98th St and 102nd St on 101st Ave.

P8.1.1 Encourage and support street level pedestrian activity and small scale mixed use projects with housing above shops.

P8.1.2 Encourage and support street festivals, like the popular Moose FM Block Party, in this location.





9. ENERGY INNOVATION DISTRICT

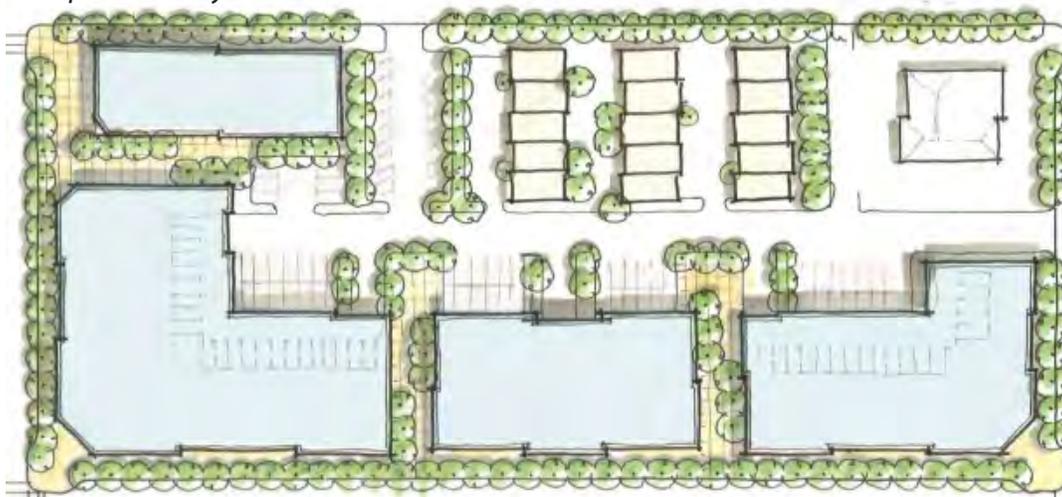
Establishing an energy innovation district, specifically on the former hospital site, can attract investment and economic development to Downtown, while creating an attractive public realm and adding housing choices.

O9.1 To establish a district that fosters partnerships between the City, energy and resource sectors, and educational institutions to showcase and advance innovations in these key economic drivers for the City and region.

O9.2 To encourage downtown living through the provision of high density residential and mixed use commercial development.

P9.2.1 Work with education and energy and resource industry leaders to the potential of and implement a university satellite campus, energy sector offices, a mix of housing (including student housing), and street level shops and services fronting onto an urban plaza for the former hospital site.

Conceptual site plan and layout



Conceptual rendering of the Energy Innovation District.

A mix of institutional, office, and retail uses on the former hospital site would be a huge activity generator in downtown and create a sense of identity and pride for the community

A satellite campus focused on energy innovation



A mix of housing including housing for students

Offices including energy sector tenants

Urban plaza with shops fronting onto it to enhance the east gateway into downtown



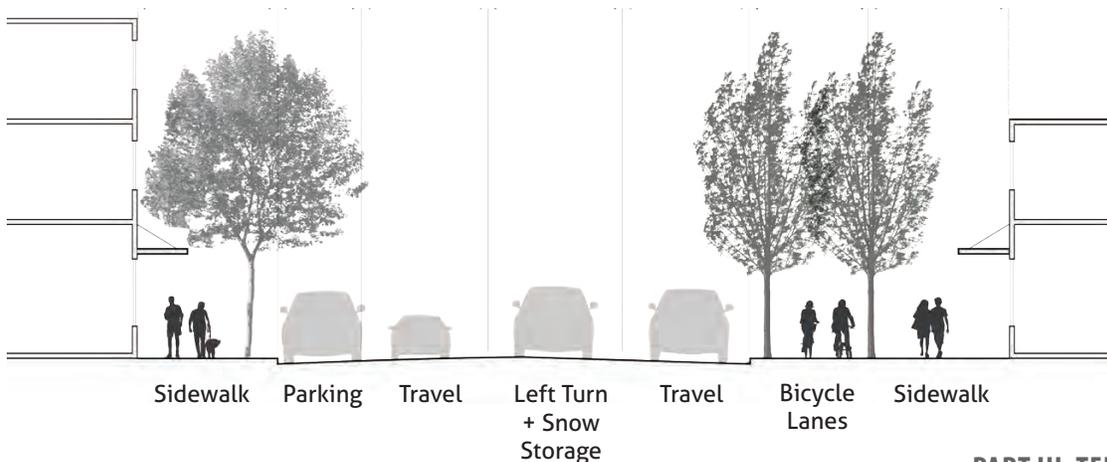
10. 100TH ST GREENWAY

Centennial Park is a major community activity node located just outside of the Downtown area. A better connection from Centennial Park to the Downtown could be created by incorporating a bicycle/pedestrian greenway along 100th St, located on the east side's underutilized on-street parking lane.

O 10.1 To provide convenient and attractive bicycle and pedestrian connections to the Downtown core from the activities associated with ample, free public parking at Centennial Park.

P 10.1.1 Include a bicycle/pedestrian greenway along 100th St in scheduled infrastructure upgrades of the street.

A9. Implement the 100th Street Greenway Concept as part of downtown Streetscape Improvements as detailed in the Downtown Streetscape & Public Realm Master Plan.



PART IV: DOWNTOWN LAND USE & DEVELOPMENT PLAN



PART IV: DOWNTOWN LAND USE & DEVELOPMENT PLAN

Land use and built form (the location, type, use and shape of buildings) are key factors in achieving a downtown that is vibrant, economically viable, pedestrian friendly, and – overall – acts as the true heart of the City.

Reinforcing the downtown as the commercial, cultural, and employment centre of the City, while attracting more people to live in the Downtown, will help create the required ‘body heat’ to support local businesses and employment, create more vitality and safety, use land and infrastructure more efficiently, and to encourage walking, cycling, and transit use.

Downtown vitalization is principally a **market process supported by strategic public investments** and leadership from the City. Demand for new residential and commercial space will need to be cultivated by making the downtown a more attractive place to live and invest, and be driven by the affordability, choice, convenience, and amenity that the Downtown will increasingly offer.

Downtown intensification will largely be created through incremental infill and redevelopment including redevelopment of underutilized sites, vacant and City-owned sites, to higher densities.

A FLEXIBLE AND INCENTIVES BASED APPROACH

Given the inherent challenges of redeveloping existing built areas, it will be important to provide flexibility to enable a creative response to both market and site conditions, as well as incentives to catalyse private investment in the Downtown. Ensuring high quality design will also be critical to enhance the amenity and investment climate of the downtown.

Downtown land use and development policies are intended to provide both strong guidance and reasonable flexibility to the development community. This can help to capitalize on opportunities for residential and commercial infill and intensification to implement two key objectives of this plan: **to encourage downtown living while maintaining and attracting new businesses in the downtown.**

To this end, land use and development objectives as illustrated in Figure A: Land Use Map, are premised on getting the fundamentals right, namely:

- A focused commercial/retail core along 100th Street and 100th Avenue;
- Encouraging a mix of retail-supportive/complementary uses and services;
- Supporting unique but interrelated downtown districts that are differentiated by a unique land use and activity focus;
- Requiring active, attractive and pedestrian-oriented ground floors, and;
- Incorporating of a wide range of infill housing types that fit within the existing parcel and development pattern.

Once these fundamentals are in place, this approach then allows the market to determine what type of development makes sense from an economic standpoint.

A FORM BASED APPROACH

To enable some flexibility while ensuring a consistent standard of design quality, the land use plan takes a form-based approach to regulating land use and development. This is achieved by letting the market determine the most appropriate form, density and use of development while ensuring adherence to the land use framework illustrated in Figure A: Land Use Map, namely:

- Requiring a continuous ground floor commercial/retail use along 100th Street and 100th Avenue to the extent shown;
- The nature of different uses intended for each 'downtown district'; and ,
- Implementation of the range of development typologies for commercial/mix-use and residential land use designations, and including direction for development orientation, setbacks and height, parking, access and circulation, and building height and scale.

DOWNTOWN INFRASTRUCTURE

A detailed assessment of downtown infrastructure, specifically water, sanitary sewer and storm water infrastructure, was undertaken as part of Phase 1 of Downtown Planning. Overall it found that while the infrastructure in the City Core is generally performing well currently ageing water and sanitary infrastructure will likely be required to be

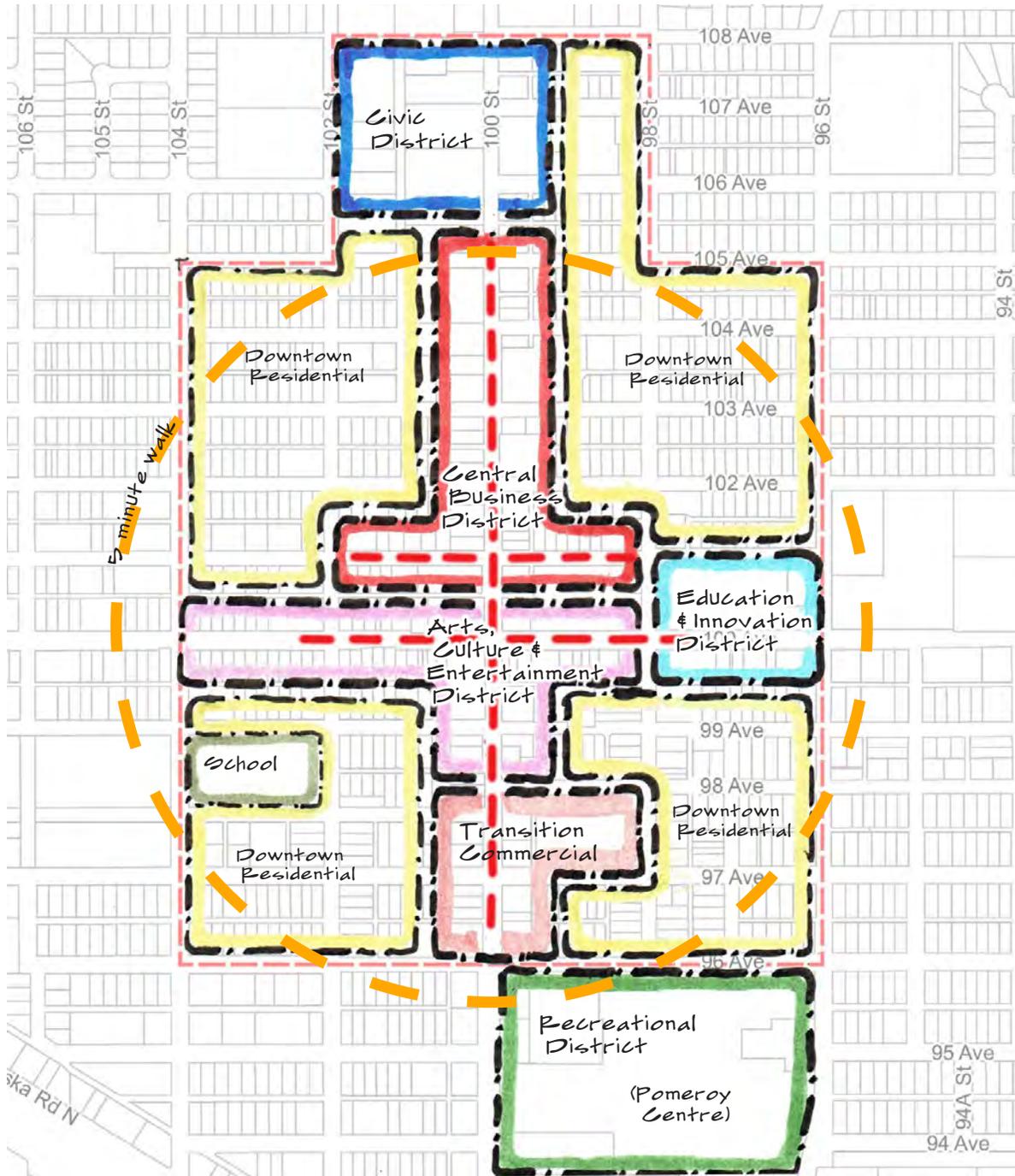


replaced within the next 10-20 years or as issues become apparent.

Infrastructure upgrades to support a higher intensity of land uses and development as envisioned in this plan will be required to support the downtown vision. Specifically, it will be important to ensure:

- Infrastructure upgrades beneath the ground are completed prior to or in tandem with streetscape/public realm improvements and road upgrades;
- Developments can proceed with minimal delays as adjacent infrastructure components are adequately sized and have sufficient capacity; and,
- Resilient infrastructure of an appropriate age is in operation to minimize unexpected disruptions to the City Core.
- Infrastructure upgrades in the City Core should be coordinated with private development and public realm improvements to fully capitalize on the City's time and resources and minimize disruptions in the Downtown.

FIGURE A: LAND USE MAP



Districts are special areas within a community or neighbourhood defined by their unique uses, activities, design, history, and character.

By differentiating and enhancing our unique - but interrelated - downtown districts, we can strengthen the identity of the downtown overall.



LAND USE DESIGNATIONS

DOWNTOWN RESIDENTIAL

A wide range of ground oriented housing is encouraged for the downtown, as illustrated in the following presentation of housing infill types. The housing types presented range from 10 - 20 units per acre (net), are premised on redevelopment ranging from a single lot to a 5 lot assembly, and assume a parking ratio of 2 stalls per unit for townhouse forms and 1.5 stalls per unit for apartment forms. Suggested site backs and other site planning elements are as shown. Parking approaches assume provision of enclosed, secured parking through either tuck-under/under-building, and garage parking.

Following is a range of housing infill types

to support downtown living as an important component of implementing the Downtown Vision.

Housing types encouraged for the downtown include:

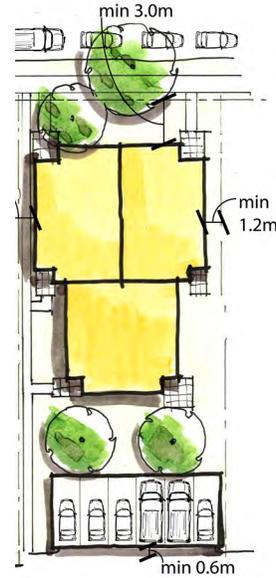
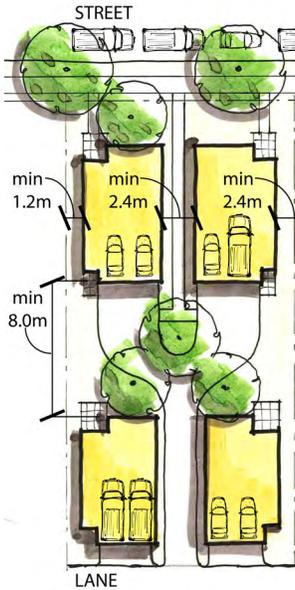
- front-to-back and side-to-side duplexes
- carriage homes
- cottage home clusters
- traditional (street fronting) row homes
- townhouses ranging from 3-4 stories
- 4 - 6 storey apartment and mixed-use buildings
- tall buildings over 6 storeys as opportunities occur

COTTAGE CLUSTER:

4 small cottage homes with enclosed parking on a 1-2 lot assembly.

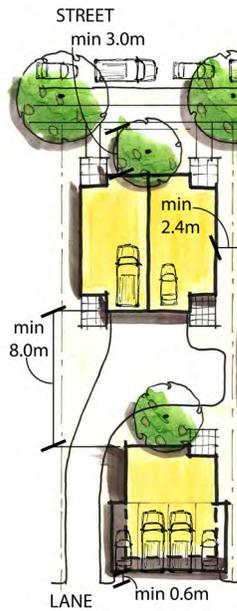
TRIPLEX:

Redevelopment of a single lot with three attached homes and detached parking.



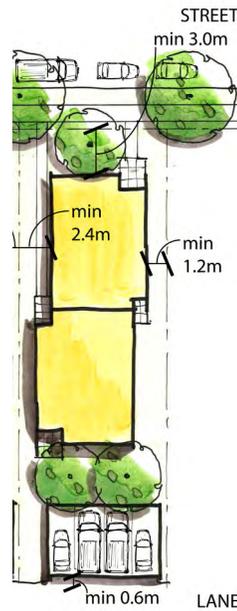
SIDE-BY-SIDE DUPLEX WITH CARRIAGE HOME:

Redevelopment of a single lot (min 15 m frontage) with two attached street-facing homes, detached parking and one carriage home.



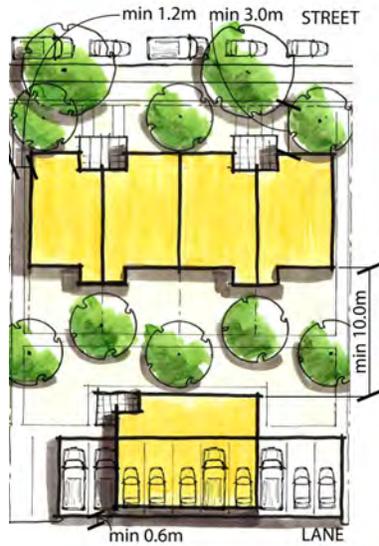
FRONT-TO-BACK DUPLEX:

Redevelopment of a single lot (minimum 12 m frontage), with one street fronting and one side entry unit and detached parking.



TRADITIONAL TOWNHOUSES WITH CARRIAGE HOME:

4 Street fronting town homes with detached parking and one carriage home.



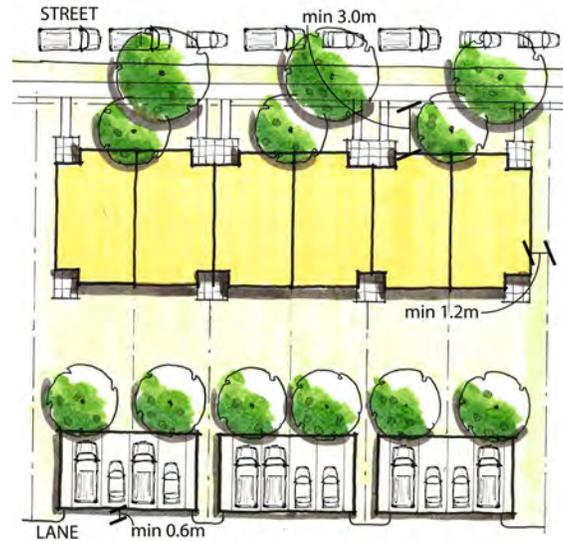
COURTYARD TOWNHOUSES:

8 town house units with detached parking.



TRADITIONAL FEE SIMPLE ROW HOUSES:

Six street facing units with detached parking on a 2-3 lot assembly.



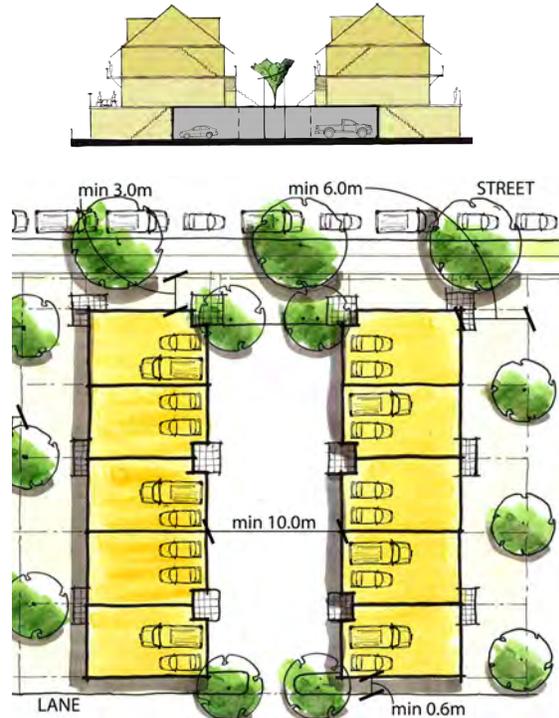
CARRIAGE COURT TOWN HOUSE:

7 units with enclosed parking on a 2-3 lot assembly.



CARRIAGE COURT TOWNHOUSES:

10 side yard facing units with enclosed parking on a 3-4 lot assembly.



CARRIAGE COURT TOWN HOUSES:

15 Townhouse units with enclosed and detached garage parking on a 4-6 lot assembly.



One detached parking stall per unit.

Town homes with enclosed parking space

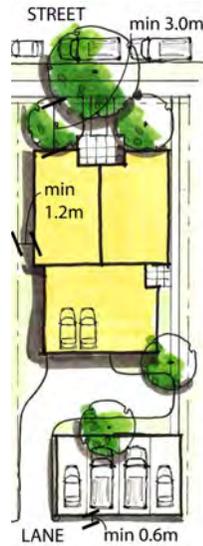
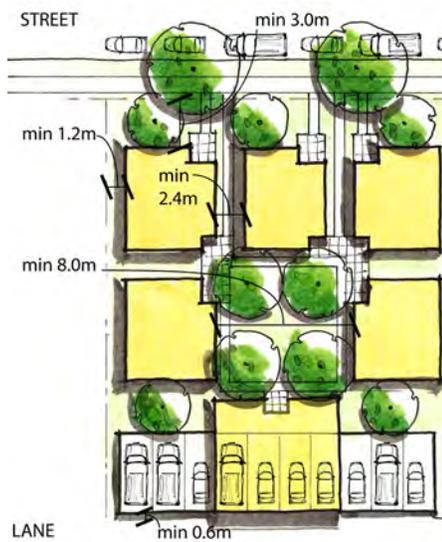


COURTYARD COTTAGE CLUSTER:

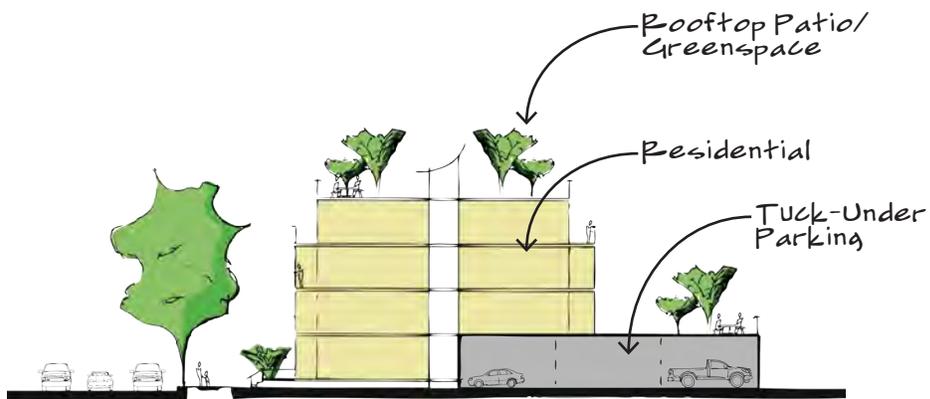
5 small detached homes with detached parking, incorporating one carriage home on a 2-3 lot assembly.

TRIPLEX:

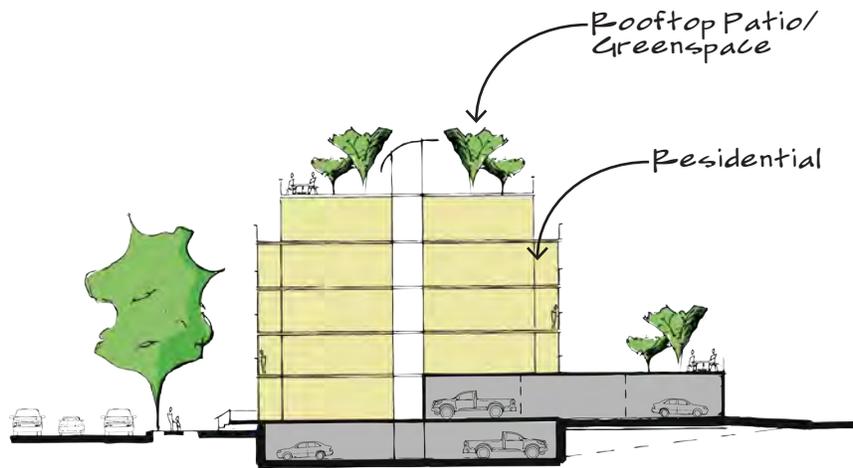
3 attached homes: 2 street facing with detached homes, and one rear facing with enclosed parking.



**APARTMENT BUILDING WITH UNDERGROUND
AND/OR TUCK-UNDER PARKING:**



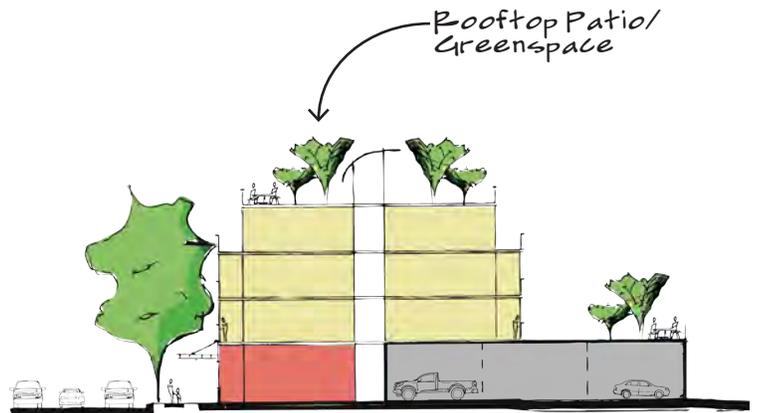
APARTMENT BUILDING AND TOWNHOUSES WITH UNDERGROUND AND TUCK-UNDER PARKING:

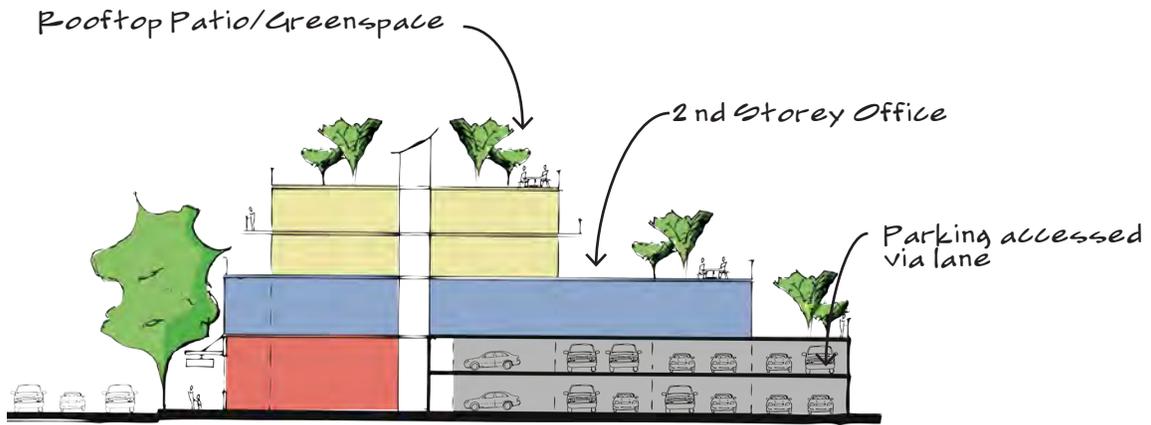


DOWNTOWN COMMERCIAL & MIXED-USE

Downtown is envisioned to offer opportunities for people to live in the downtown to support local businesses/services and encourage vitality and more activity on the street past usual business hours.

Housing infill and redevelopment at higher densities including housing located on top of downtown businesses and services is encouraged.



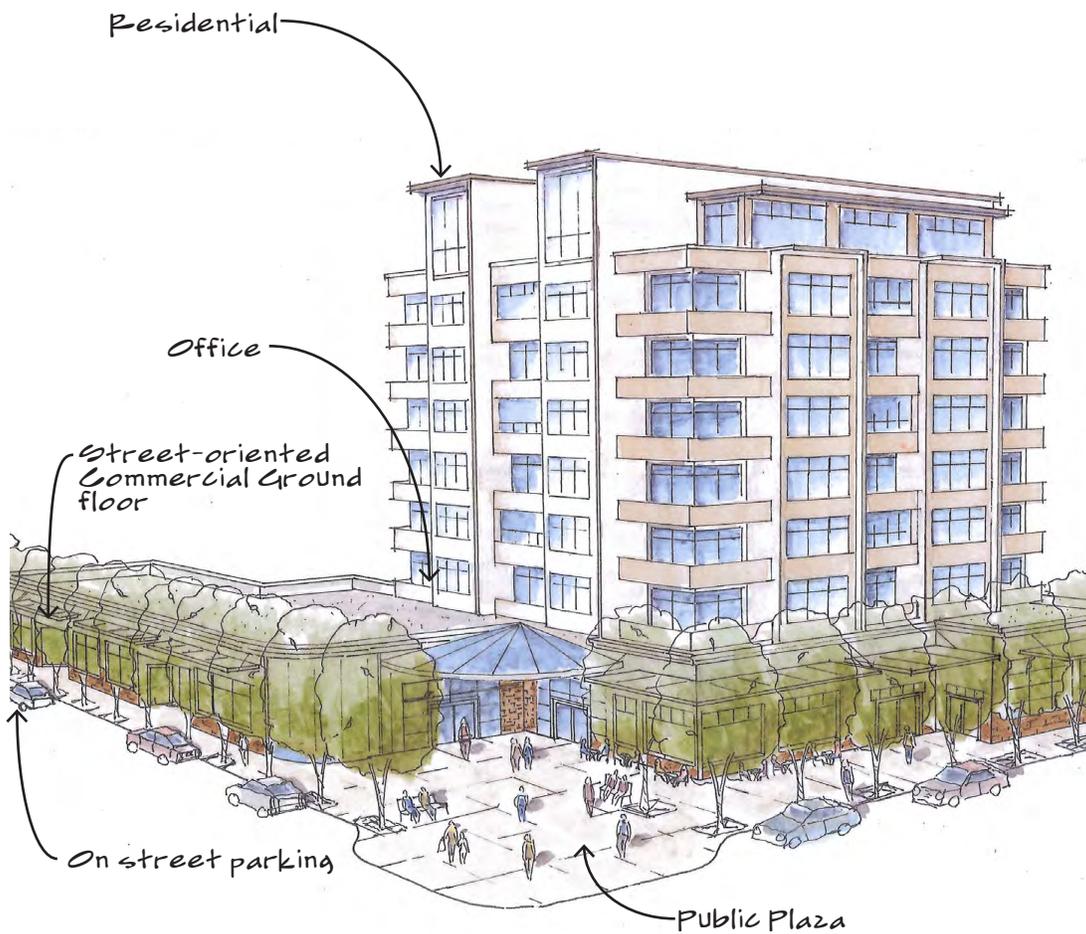


Continuous street-oriented commercial ground floor

On street parking

Residential Above





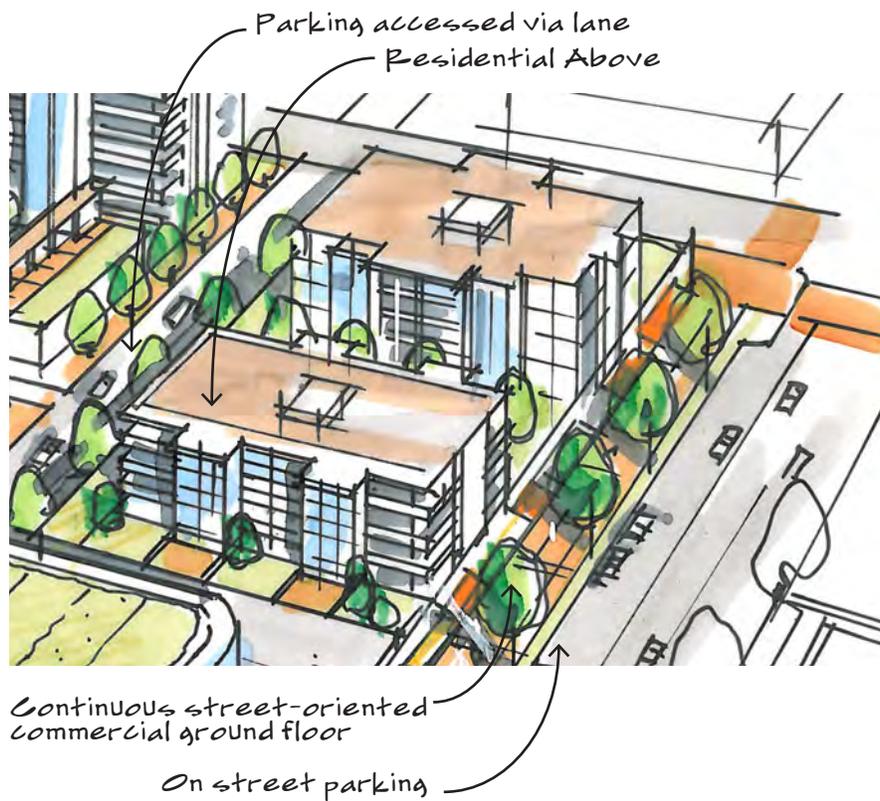
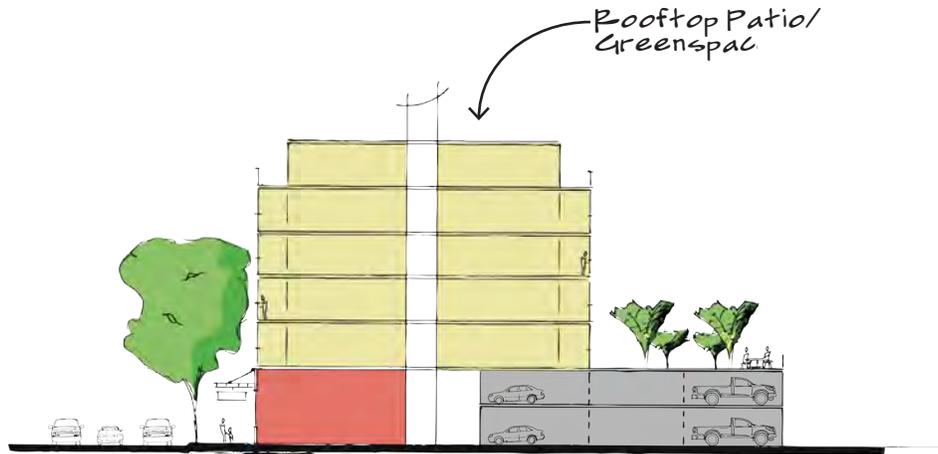
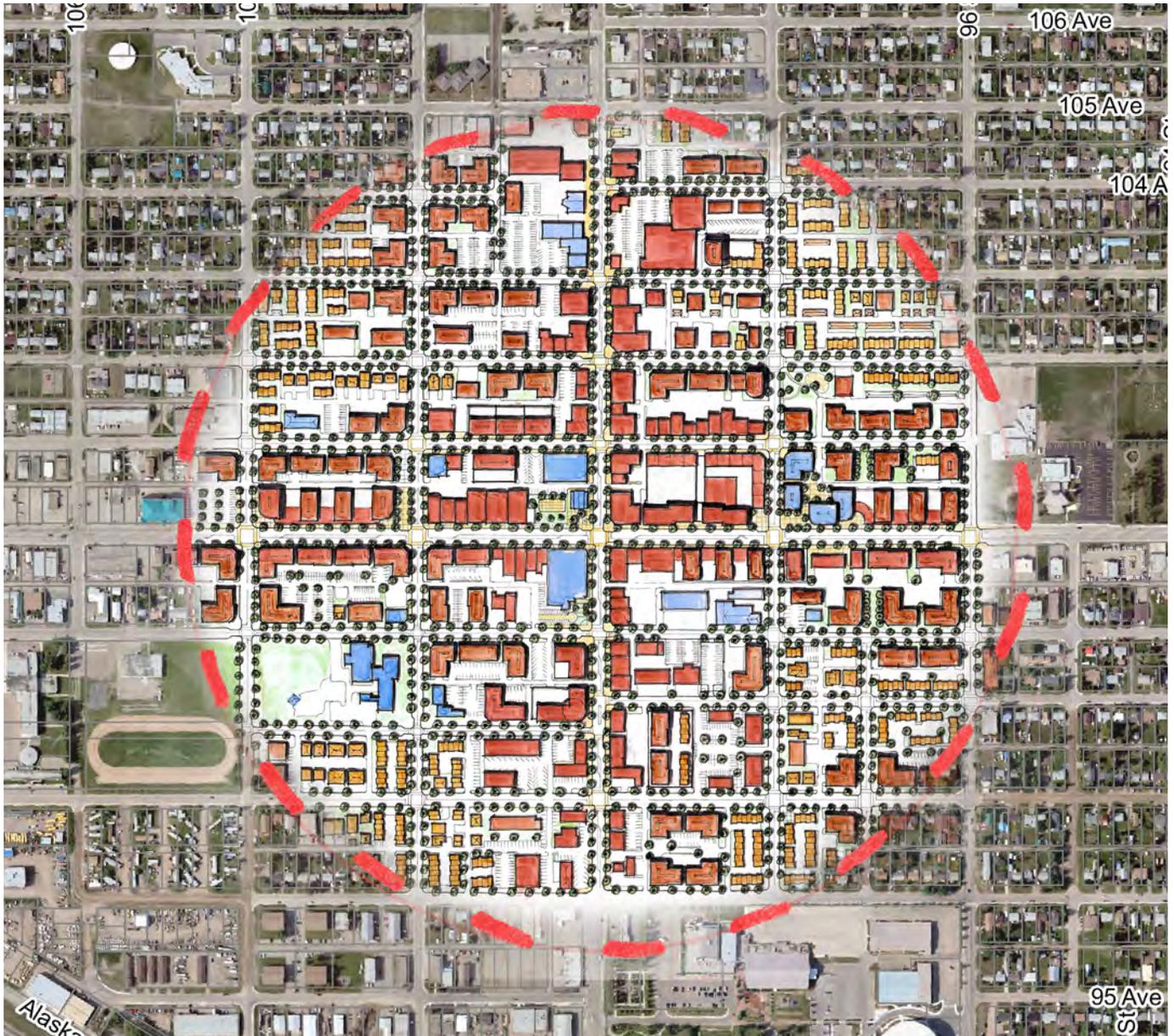


FIGURE B: DOWNTOWN ILLUSTRATIVE CONCEPT PLAN



The Downtown Illustrative Concept Plan represents a synthesis and conceptual implementation of the vision, goals and actions, and specifically the range of housing and development types presented in this plan, to paint a picture of what the future could look like based on the implementation

of the 5 Fundamentals and 10 Big Moves on the ground. It is important to note that this is highly conceptual and only one possible configuration; the type, size and location of future development may differ from that shown but still remain within the intent of the plan.



OBJECTIVES, POLICIES & ACTIONS

The objectives, policies, and actions in this section are intended to support implementation of the Vision, Five Fundamentals, and 10 Big Moves identified in this plan, and further, guide updates of relevant regulatory documents including the Official Community Plan and Zoning Bylaw, as required.

O 11.1 To reinforce and prioritize the downtown as the commercial, cultural, and employment centre of the City.

O 11.2 To encourage the development of a mix of appropriate, high-density land uses in the downtown.

O 11.3 To provide guidance and flexibility to enable a creative response by developers to both market and site conditions.

O 11.4 To promote, encourage, and incentivise downtown living

O 11.5 To catalyse and prioritize downtown redevelopment through implementation of appropriate regulatory tools and incentives.

O 11.6 To support infill and redevelopment while ensuring a consistent standard of design quality for new development.

O 11.7 Encourage improvement to the design quality of existing buildings through facade redevelopment programs/ incentives.

P 11.7.1 Amend the OCP to include:

- » A new Downtown Housing Land Use Designation as laid out in this section; and,
- » A Downtown Commercial/Mixed Use Land Use Designation.

- P 11.7.2 Develop and adopt supportive zoning and consider pre-zoning selected sites to support implementation of the Downtown Housing Land Use Designation.**
- P 11.7.3 Accommodate a significant share of the City of Fort St John’s overall residential growth through multi- family and mixed use developments located in the downtown.** This aims to support continued revitalization of the downtown’s commercial core, and to minimize development on natural open spaces, agricultural and rural lands on the periphery.
- P 11.7.4 Concentrate professional and business offices in the downtown to balance housing and jobs, to provide economic opportunities, and to enhance the vibrancy and safety of the downtown.**
- P 11.7.5 Introduce supportive zoning schedules where the existing zoning bylaw does not sufficiently cover the intent, permitted uses, densities, and technical and design considerations of this plan.**
- P 11.7.6 Focus speciality retail, entertainment, restaurants, and civic uses within the core as illustrated in the land use diagram.**
 In particular support niche retail uses along 100th street and 100th avenue in the core area.
- P 11.7.7 Intensify service and office developments in the core to enhance the ambiance, convenience and mix of speciality businesses.**
- P 11.7.8 Encourage, where appropriate, additional larger retail stores up to 3500 sq. m. to integrate into mixed use buildings with residential uses located above.**
- P 11.7.9 Discourage pawn shops and cheque cashing establishments in the Downtown Plan Area.**
 Existing land use zones within these designated areas will be amended to exclude these uses.
- P 11.7.10 Amend the zoning by-law to require vehicular access to parking, servicing and loading from the lane for new residential, commercial and mixed use development in the downtown.**
- P 11.7.11 Amend the zoning by-law to include the following on-site parking requirements for downtown development:**
 - » Commercial/retail uses: no parking requirement.
 - » Mixed use commercial/residential development: 1 parking stall/residential unit.
 - » Office: (to be determined).
 - » Residential: 1.25 stalls/unit for apartment developments; 1.5 stalls/unit for townhouse developments.
- P 11.7.12 Establish a Tax Exemption By-Law for the Downtown Plan Area as enabled by the BC Community Charter for the following types of development:**
 - » New Multi-family residential infill projects of 4 units or more.

- » New Mixed use (commercial retail/residential or commercial retail/office) buildings of 2 storeys or more.

This should be revisited each year to make sure it is still necessary to attract new development.

- P 11.7.13 “Downtown First” policy: Prioritize development applications for appropriate and compatible residential, retail, office, and civic/institutional development in the downtown in accordance with the vision and objectives for the downtown as laid out in this plan.** Under this policy, applications for the following types of development located within the downtown will be prioritized and expedited as part of the regulatory and approvals process:
- » Multi-family residential (townhouse and apartment) projects;
 - » Mixed-use projects;
 - » Renovations or improvements to existing commercial buildings; street fronting commercial projects;
 - » Civic or institutional projects;
 - » Mixed use commercial or office developments that are 2 stories or greater.

- P 11.7.14 Consider the impact on downtown when making development and infrastructure investment decisions elsewhere in the City.**

Approving too much development elsewhere in the City may undermine the goal of attracting investment downtown. Prioritize the downtown for new public and private development.

- P 11.7.15 Establish a downtown Façade Improvement Program that provides matching grants of up to \$10,000.00 per year for up to 5 façade improvements per year.**

- P 11.7.16 Establish a new ‘Senior Downtown Planner’ position or dedicate the necessary resources equivalent to one full time position at City Hall within the planning department to oversee and coordinate implementation of the Downtown Action Plan.** This role will include but not be limited to:

- » Coordinating with various staff and strategic partners on implementing the big moves, and associated policies and actions in the downtown plan;
- » Promote and market downtown as a place to live, work and invest as part of the City’s overall economic development strategy
- » Continually monitor and secure funding for downtown projects and initiatives including tax revenues, grants and loans from senior governments and foundations, partnerships with businesses and other organizations, and crowd-funding.

P 11.7.17 In order to catalyze downtown development, using the provisions of section 933.1 of the Local Government Act, update the City’s Development Cost Charges Bylaw to waive or reduce Development Costs Charges in the downtown plan area for the following types of development:

- » not-for-profit rental housing, including supportive living housing;
- » for-profit rental housing that meets the City’s definition of “affordable”;
- » multi-family residential infill projects of 4 units or more
- » mixed-use (commercial residential or retail/office) buildings of 3 storeys or greater
- » other development that demonstrates a significant reduction in GHG
- » emissions or reduced environmental impact (e.g. Passivhaus, LEED Gold).
- » The criteria for (b) and (e) shall be developed as part of the DCC bylaw update.

P 11.7.18 Create a Business Improvement Area in accordance with Section 215 of the BC Community Charter; Assist with the creation of a Downtown Business Improvement Association; Grant the BIA

powers to levy fees to downtown businesses to undertake initiatives to improve and enhance the downtown commercial/retail environment. Make an annual grant to the BIA to cover annual operating costs.

P 11.7.19 Create a request for proposals process for development of strategic City-owned lands in the Downtown using a balanced set of criteria including: price offered for land; quality of proposed design; fit with the this plan; level of social and cultural amenity offered; and innovation in energy and environmental design. Consider a “design competition” for the high profile, public buildings.

P 11.7.20 Use pilot projects and temporary changes to test changes to the road/parking system e.g. temp lane changes, creating bike lanes using simple removable partitions; temporary pocket parks in parking spaces. If successful these changes can be made permanent.

Downtown Economic Development Corporation

P 11.7.21 Create a City of Fort St John Downtown Economic Development Corporation (DEDC) that plans, develops, administers and promotes strategic City owned sites and assets for the maximum benefit of the community. This organization’s role should initially focus on championing

and providing leadership to foster economic growth, economic diversity and marketing to revitalize the downtown. Specifically, this includes developing public private partnerships including with the local Chamber and Business Improvement Associations, multi-agency partnerships including with Treaty 8 and the Regional District and ongoing community involvement towards implementation of the Downtown Plan.

Services of the DEDC could include:

- » Working towards obtaining and assembling (and in some cases developing) new strategic lands for downtown commercial growth as well as key civic projects.
- » Liaising with energy and resource sectors to coordinate development and related activities including services and housing to the benefit of the community.
- » Help in coordinating public and private sector investments in Downtown Fort St John.
- » Providing assistance with employee recruitment and other human resource tasks, and aid in obtaining funding for employee training.
- » Championing remediation of contaminated sites including identifying and helping secure and co-ordinate federal and provincial grant funding opportunities for brownfield

redevelopment and associated site remediation activities.

- » Aid in helping businesses participate in other government programs.

The DEDC could be set up in a number of different ways, including:

- » As a partnership between the City of Fort St John, a newly established Downtown Business Improvement Association (BIA) and the Chamber of Commerce
- » As a corporation wholly owned by the City of Fort St John but managed at arm’s length from the municipal government and with a board of directors that includes representation from City council and City management as well as other individuals with experience in development, marketing and business development.
- » Initial funding can occur through a fixed term funding agreement provided either solely by the City or through partnerships with other organizations. Other funding avenues include:
 - » Public-private partnering approaches.
 - » Provincial and federal funding and support programs.
 - » Joint initiatives with agencies and government organizations.
 - » Partnership income-generating programs.



IMPLEMENTATION

The Downtown Action Plan is premised on as much “in-house” implementation as possible. It assumes close coordination between departments and other partners/stakeholders to harness the full potential of Downtown. The adoption of the plan is not the end of the project; it is the beginning of many tasks that must be well resourced with time and funding in order to be successful.

In this context, the Downtown Action Plan Implementation Framework is an important resource intended to be used in tandem with the plan by identifying specific actions, programs, partnerships, required resources, funding sources, timing, roles and responsibilities. The Implementation Framework is a living document separate from the Plan By-Law in that it is intended to be updated at regular intervals as actions are implemented and new

implementation priorities identified.

In addition to the Implementation Framework and the policies and actions identified in the Plan, the following principles will help catalyze the vision for downtown:

Success breeds success: ensure that the first projects are easiest to do, have broad support, and create the biggest change based on resources.

Leverage funding: the City of Fort St John should leverage their own funding with businesses, community members, other funders, the provincial government and the federal government.

Synergize projects: each project’s funding, partnerships, and resources should be combined with others if possible to create the biggest physical, social and economic advancements.

Prepare the ground work: assess the capacity of utilities to support development downtown and provide incentives and clear directions for infrastructure upgrades.

Encourage small steps to make big change: the larger projects can be combined with smaller projects that collectively define significant changes.

Involve everyone, exclude no one: the spirit of downtown revitalization should include every neighbour, stakeholder and all businesses.

Monitor and improve: evaluation of projects will create a foundation for constant improvement.

Communicate results: each success and report should be conveyed to the community so that they see and hear about changes.

Recognize contributions: the “heavy lifting” completed by few or many should be recognized with awards and thanks.

PART V: DOWNTOWN DEVELOPMENT PERMIT AREA GUIDELINES FOR FORM & CHARACTER

FORT ST. JOHN

Downtown Development Permit Area Design Guidelines



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1.0 Introduction and Overview

1.1 Justification and Intent

The City of Fort St. John Downtown Action Plan (DAP) was adopted by City Council in July 2015. The DAP presents a detailed vision and implementation framework for a walkable, vibrant and liveable downtown Fort St. John. The plan includes a set of infill development typologies for commercial, residential and civic/institutional development, as well as a detailed streetscape and public realm plan. Together these provide clear direction on key physical features for public and private realm development and their seamless integration into a cohesive urban design vision for the downtown. This includes a mixed use commercial core along 100th Street and 100th Avenue, a concentration of existing and future cultural and civic facilities, a range of ground oriented and apartment housing, all woven together with a network of animated, bike-friendly and pedestrian-friendly green streets and openspaces for all seasons.

The overall intent of the Downtown Design Guidelines is to emphasize building and open space design that enhances pedestrian activity, amenities, and safety and contributes to the downtown's unique identity and sense of place. Specifically, they are intended to guide implementation of the Downtown Action Plan objectives and policies related

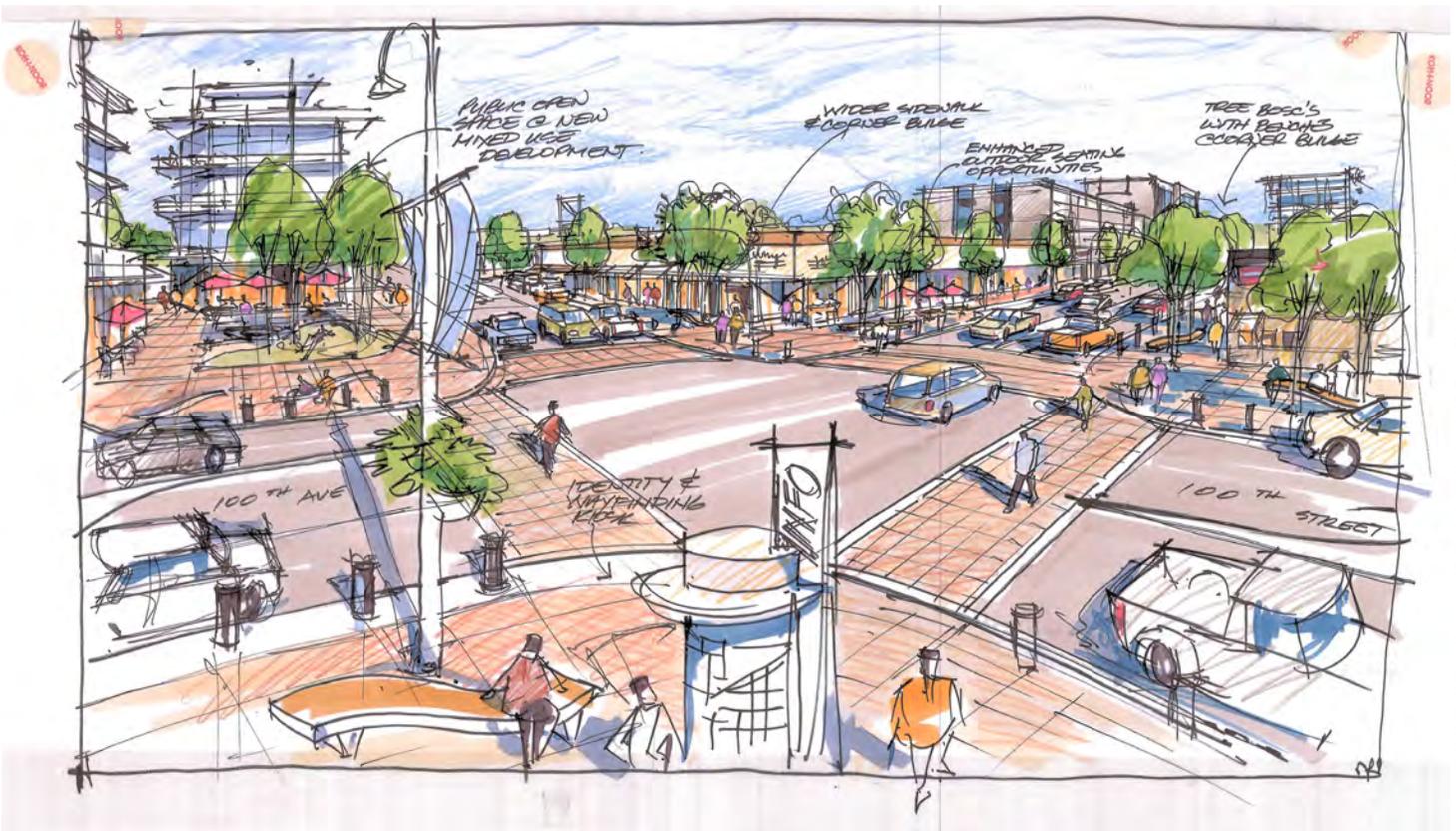
to the creation of a vibrant, compact, walkable and mixed-use downtown with a high quality of urban design. In this way, the Downtown Design Guidelines translate City objectives and policies and into a set of design strategies and approaches to help guide the development review and permitting process for downtown development.

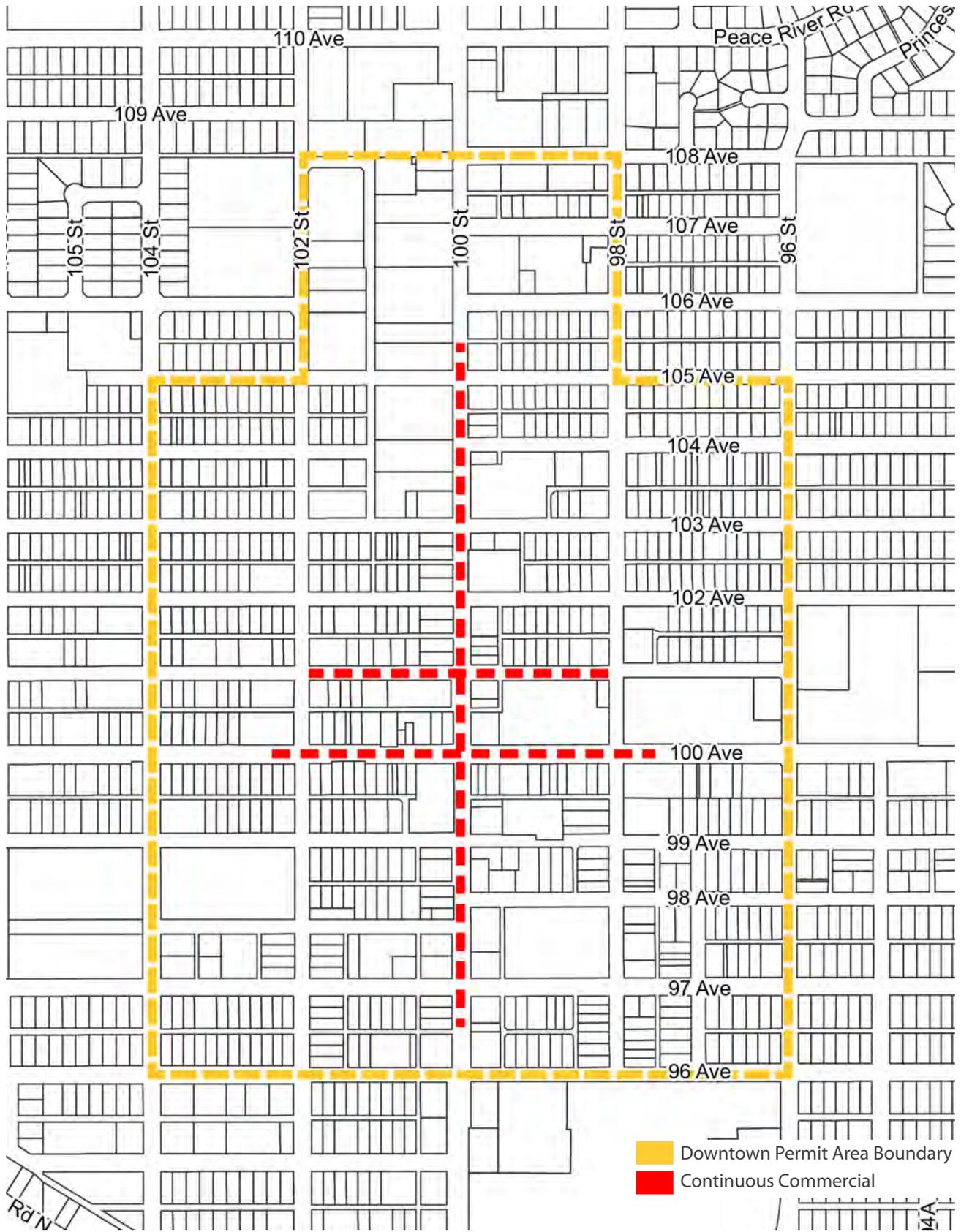
1.2 Designation

The lands identified on Map 1: Development Permit Areas as Downtown Development Permit Areas are designated under Section 919(1)(f) of the Local Government Act, which allows regulation of the form and character of commercial, industrial, and multi-family residential development.

EXEMPTIONS

Temporary buildings and reconstruction of buildings resulting from a fire and which are required to be built to their pre-fire condition, and renovations under \$5,000.00, are exempt from the guidelines. Renovations under \$20,000 are not required to pay the Development Permit Application Fee.





- Downtown Permit Area Boundary
- Continuous Commercial

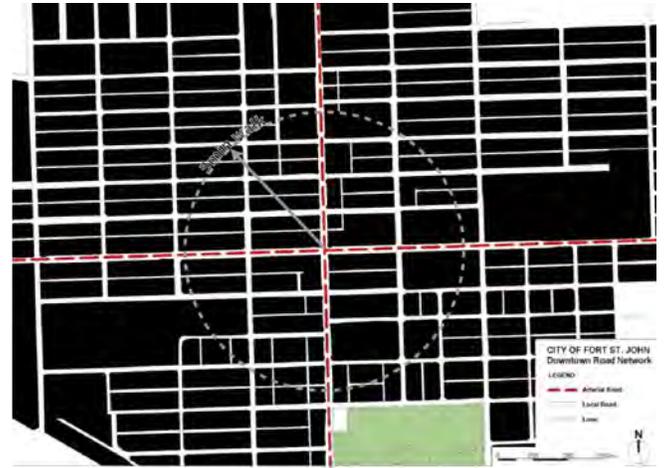
Map 1: Development Permit Areas

1.3

Area Overview

The City of Fort St. John has a distant but intact foundation of good urban design due to its initial grid street layout. This includes a highly connective laneway network and pattern of small blocks. This structure enables servicing and access from the rear of buildings via the lane, and in turn, a positive orientation of buildings to public streets and open spaces.

There are still a number of buildings with this more traditional pedestrian oriented urban form and street fronting orientation, particularly the range of older commercial buildings located along 100th Street and 100th Avenue. The grid-iron street and laneway network and pattern of small blocks is Fort St. John's most valuable heritage assets with regards to urban design as it allows for a positive orientation of buildings to public streets and other pedestrian spaces. Therefore, future actions should endeavour to maintain the connectivity and structure of the network and, importantly, ensure maintenance of lanes to enable rear access, servicing and loading.



The grid-iron street and laneway network of small blocks is an urban design heritage asset.

1.4

Climate

Fort St. John experiences hot summers, and cold winters that can last from October to April. Average annual rainfall and snowfall are 292 mm and 189 cm respectively. Summer temperatures range from average highs of 21.5 degrees Celsius, and winter temperatures range from average lows of -16.9 degrees Celsius. Extreme temperatures on record range from highs of 33.6 degrees Celsius in summer and lows to -47.2 degrees Celsius.

Effective weather protection and climate-sensitive or "winter city" urban design is therefore an important factor affecting not only pedestrian movement and public amenity within the downtown, but also the overall character of downtown buildings and the streetscape. As such, building design and the incorporation of weather protection should be architecturally integrated to not detract from the overall design quality and character of the downtown.



Traditional, pedestrian oriented street front



Climate-sensitive urban design for the "winter city"

The Brett and Hall Town Plan, prepared for the Grand Trunk Pacific Railway.



Entrances and building facades oriented towards the street create Vitality. Lane Access provides off-street parking, and servicing.

1.5 Design Principles, Elements and Approaches

Urban design is the comprehensive and cohesive combination of buildings, streets, and open space, and has as its objective the creation of memorable public spaces. The essence of good urbanism is determined by the relationship between the public and private realm—between buildings and public open spaces—at street level. Buildings, streets, and other public open spaces scaled for human comfort and use are essential to the creation of a functional, aesthetically rich and vibrant downtown. As such, building frontages are among the strongest determinants of the character and quality of the downtown.

The Downtown Action Plan establishes a clear vision for the downtown as a highly sustainable, livable, and unique urban place that is the cultural, civic and social heart of Fort St. John. The overall intent of the Downtown Design Guidelines are to create a vibrant, safe and accessible urban environment that promotes pedestrian activity and street life while creating a unique social identity for the downtown.

The overall intent can be boiled down into the following four key design approaches:

DEFINITION: Build to (or close to) the front property line. Do not locate off-street surface parking between the front face of a building and the fronting public street or open space;

VITALITY: Ensure active, attractive and transparent frontages, along commercial and residential streets. Incorporate continuous frontages, a significant amount of glazing and avoid blank walls along commercial streets to create vitality and “eyes on the street”. Orient entrances and building facades towards sidewalks and other pedestrian areas along residential streets.

LANE ACCESS: Maintain lanes for access to off-street surface parking, servicing and other ‘back-of-house’ uses.

HUMAN-SCALE: Incorporate architectural features, details, and site design elements that are humanly proportioned and support pedestrian activity. Continuous frontages along commercial streets create interesting and attractive walking environments while providing friendly and animated streetscapes.

2.0

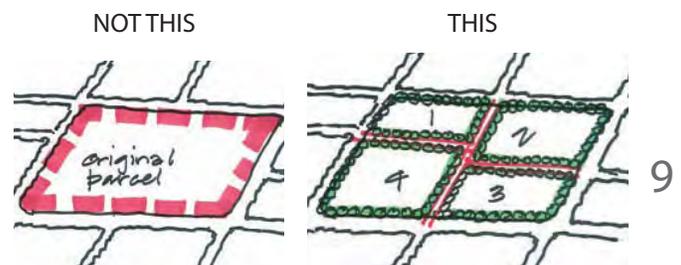
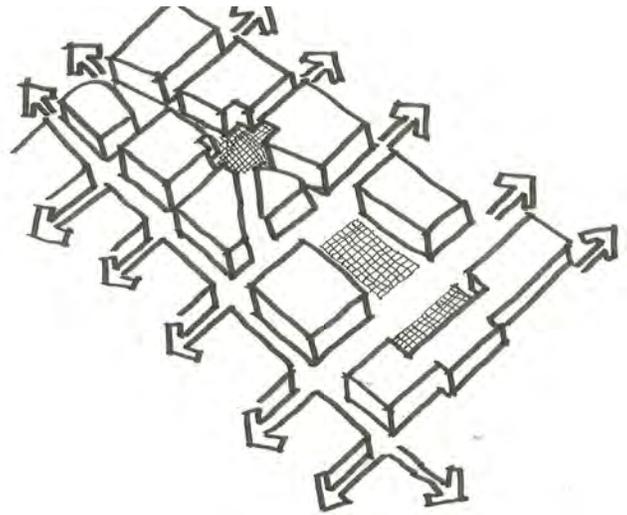
General Guidelines

2.1 Connectivity: Enhancing the Pedestrian Network

The City of Fort St. John has a distant but intact foundation of good urban design due to its grid street layout. This includes a highly connective laneway network and pattern of small blocks. This structure enables servicing and access from the rear of buildings via the lane. In turn, this allows for development efficiency/density of the site and a positive orientation of buildings to public streets and open spaces.

GUIDELINES

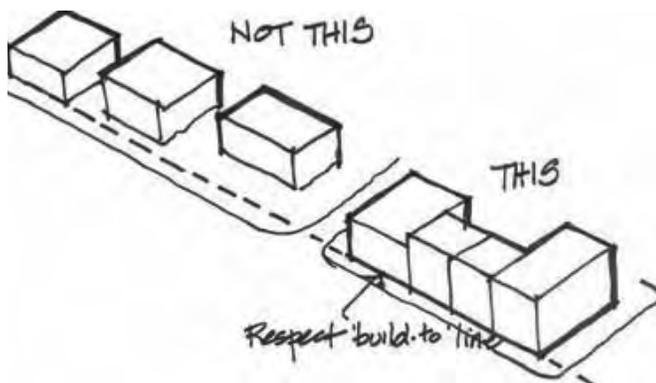
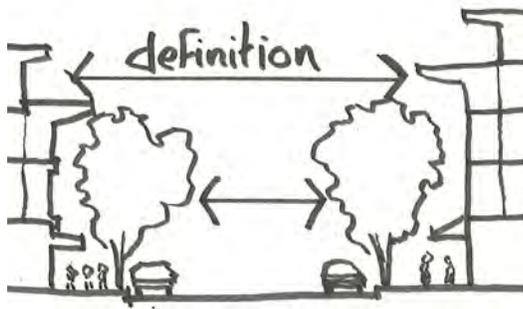
- i. New development or redevelopment on large sites, incorporate streets, lanes and pedestrian pathways that support and extend the existing streets and open space network.
- ii. The existing downtown lane network should be maintained. Where lanes have been removed, they should be restored through redevelopment as opportunities arise.
- iii. Where large blocks are unavoidable, provide publicly accessible mid-block pedestrian and bicycle pathways.
- iv. Increase pedestrian connections to adjacent parks, activity nodes, and residential neighbourhoods to create more route options and direct connections for pedestrians and cyclists.
- v. Paseos or passage ways from the sidewalk to parking areas located behind buildings and accessed from the lane should be provided.



Large blocks should be broken up to create smaller ones as re-development opportunities arise.



Mid-block pedestrian pathways increase connectivity and create more direct routes for pedestrians.



The siting and massing of buildings and street trees can be used to create a sense of enclosure and intimacy. This is achieved by building to the sidewalk and/or using a common "build to line."

2.2

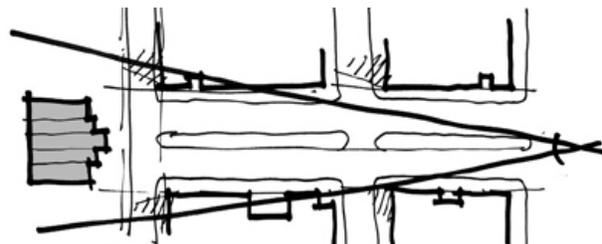
Street Definition

OVERVIEW

Streets and squares require visual and structural definition. Streets should have clear boundaries or "walls" that create the feeling of an outdoor room. Therefore, new buildings should be sited and designed to positively frame and define streets and other public open spaces.

GUIDELINES

- i. Minimize the distance buildings are set back from the sidewalk to create good street definition and a sense of enclosure.
- ii. Parking should never be located between the front of a building and the public sidewalk. Locate parking behind underneath or where necessary, beside the building with access from the rear lane.
- iii. Build ground floor commercial uses up to the front property line so that a continuous commercial street frontage and positive street definition are maintained. A setback may be considered where there is a courtyard or other feature that benefits the pedestrian experience, or to respond to the building setback from an adjacent property.
- iv. Residential buildings should front onto downtown streets with a desired set back of 4 metres.
- v. Establish a minimum 2-storey street-wall for new development located along downtown commercial streets (100th Street, 100th avenue, 101st Avenue as shown in Map 1: Development Permit Areas (page 6).
- vi. New developments with tall buildings (over 4 storeys in height) should step back a minimum of 1.5 metres after the third storey
- vii. Site and design buildings to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unusual topography, sites framing important open spaces, and sites with buildings that terminate a street end view.



Site buildings to define public open spaces. Site buildings and provide distinctive architectural features to terminate a street end view.

2.3 Street Vitality: Creating Active building Frontage

OVERVIEW

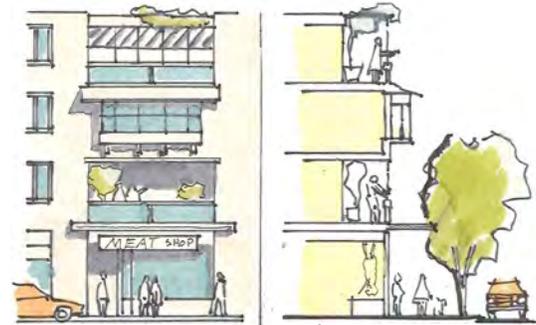
Street vitality is achieved by ensuring active and transparent building frontages along public streets and openspaces. Active frontages can be achieved by locating building entrances frequently along and at or near the sidewalk edge. Transparency is when interior uses are visible from—and can even spill out onto—the (public) sidewalk, and when the use of public space is visible from inside buildings to allow for casual surveillance. Therefore, windows and entrances for residential and commercial uses should be designed and located to be inviting, engaging, sociable, and to provide “eyes on the street.”

GUIDELINES — COMMERCIAL AND MIXED-USE BUILDINGS

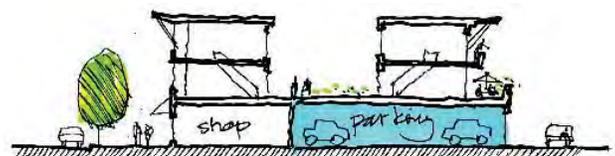
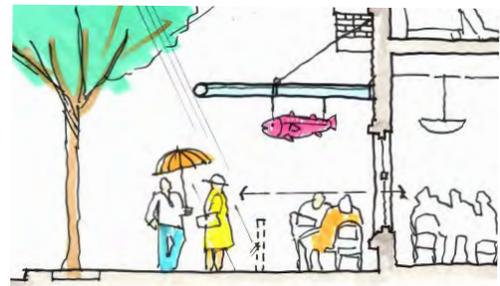
- i. Provide pedestrian access to storefronts and businesses from the adjacent public street, and orient upper-storey windows and balconies to overlook adjoining public open spaces.
- ii. On corner sites, develop street-facing façades for both streets. Design front elevations with pronounced entrances oriented to the corner and/or primary streets.
- iii. Ensure that storefronts are transparent. Clear site lines from inside buildings to open public spaces should allow for casual surveillance of the street and sidewalk, and store interiors should be visible from the street.
- iv. Ensure a minimum glazing area of 75% for frontages at grade along all commercial streets.
- v. Ensure a minimum retail frontage depth of 10 m along commercial streets.
- vi. Continuous commercial uses shall be provided at grade along 100th Avenue, 100th Street and 101 Avenue as defined in Map 1: Development Permit Areas (page 6).



Orient buildings to, and provide direct pedestrian access from, the adjacent public street/sidewalk.



Transparency creates visual interest, activity, and safety, and applies to the ground floor as well as upper storeys of buildings.



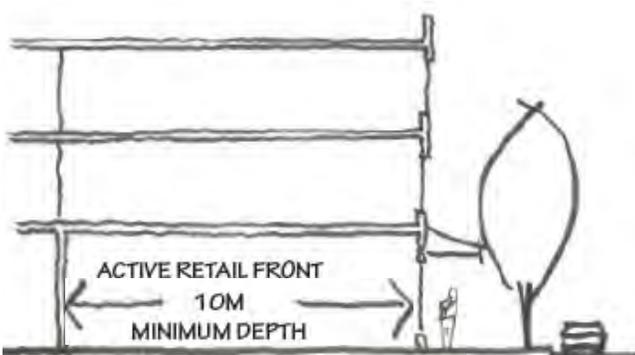
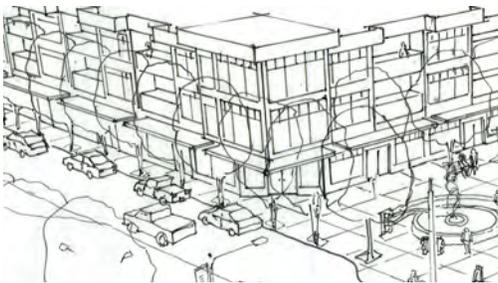
Locate off-street parking behind, underneath or where necessary, beside, but never between the front of the building and the public sidewalk



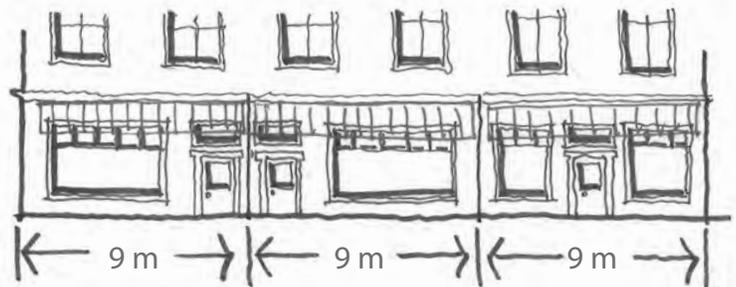
Recessed entries, glazing, weather protection and ornamentation create a welcoming frontage along the street.

- vii. Incorporate frequent entrances into commercial frontages facing the street with a maximum spacing of 15 m. A maximum spacing of 10 m for entrances is desired along the key pedestrian-oriented high streets.
- viii. Recess entrances to buildings from the sidewalk or property line by a minimum of 1.2 m in order to provide for door swings, to protect the entrance from rain or snow, and to emphasize building entrances.
- ix. Commercial entries tend to be public, and residential entries tend to be private. Accordingly, residential entrances should be architecturally differentiated from business entrances in mixed-use buildings.
- x. Large floor plate commercial developments shall respond to the prevailing street character along all downtown commercial streets by incorporating small, transparent storefronts with frequent entrances.
- xi. Large format commercial buildings with compatible uses should incorporate smaller shops wrapped around outside edges and residential uses above to better integrate these buildings and uses and make them more compatible with the desired character of the downtown.

12



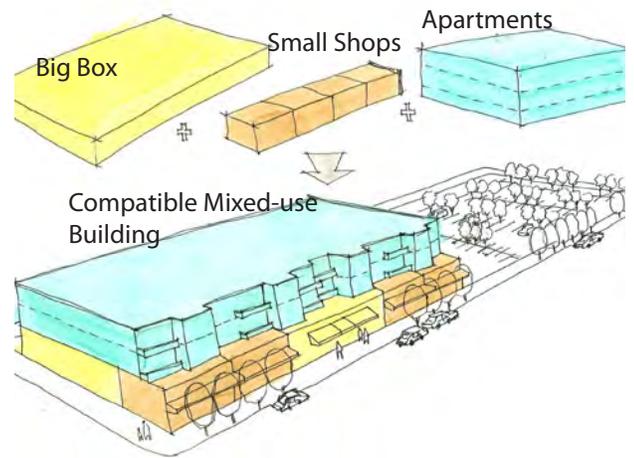
A minimum 10 m retail depth should be maintained along commercial streets.



A maximum 9 m frontage module is preferred along pedestrian high streets to create human scale and pedestrian vitality.

xii. Avoid expansive blank walls (over 5 m in length) and retaining walls adjacent to public streets. When blank walls and retaining walls are unavoidable, use an appropriate design treatment. Such treatments include but are not limited to the following:

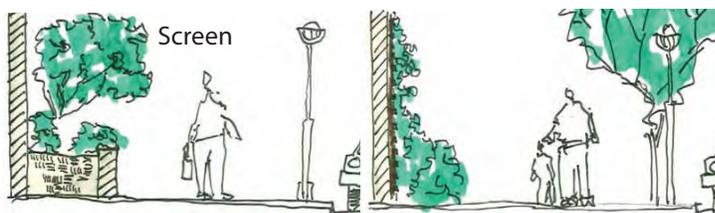
- Install a vertical trellis in front of the wall with climbing vines or other plant material
- Set the wall back slightly to provide room for evergreens and conifers to provide year-round screening
- Provide art (a mosaic, mural, relief, etc.) over a substantial portion of the wall surface
- Employ quality materials of different textures and colours to make the wall more interesting visually
- Provide special lighting, canopies, awnings, horizontal trellises or other human-scale features that break up the size of the blank wall surface and add visual interest
- Incorporate walls into a patio or sidewalk café space
- Terrace (step down) retaining walls



Large format commercial uses incorporated into a mixed-use building with small shops fronting onto the street.



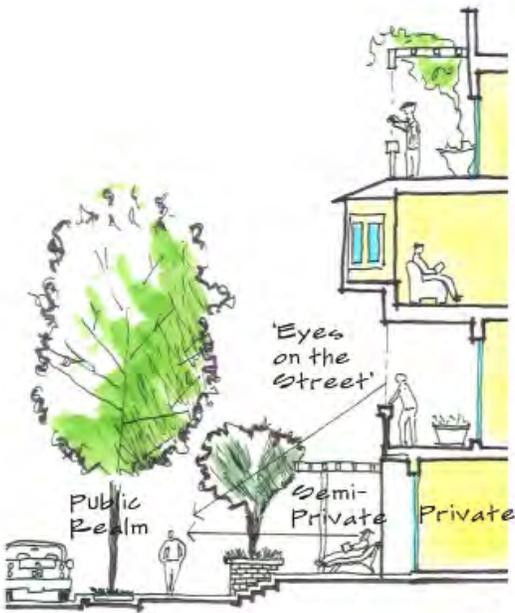
By incorporating a cafe and screening the harsh wall this becomes a comfortable social space.



When blank walls are unavoidable they should be screened with landscaping, have a patio/cafe incorporated, or be treated with special materials in order to make them visually more interesting.

GUIDELINES — RESIDENTIAL BUILDINGS

- xiii. Site and orient townhouses and apartments to overlook public streets, parks, walkways, and communal spaces, while ensuring the security and privacy of residents.
- xiv. Residential entries should be clearly visible and identifiable from the fronting public street to make the project more approachable and create a sense of association amongst neighbors.
- xv. Emphasize front doors by incorporating a front patio or stoop and orienting front entry ways prominently towards public streets and open spaces. Incorporation of a semi-elevated front entry way (1 m-1.5 m) is encouraged to create a semi-private entry or transition zone to individual ground floor units. For these units, ensure an alternate access point that is accessible by wheelchair.



Residential buildings with ground floor unit entries and upper storey balconies overlooking the street enhances street activity and safety.



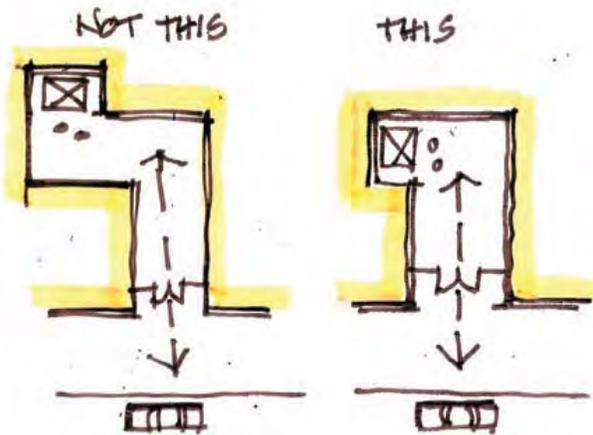
Buildings front the street with entries with parking and access from the rear lane (plan view left, sketch below)



- xvi. Set back residential buildings on the ground floor by a minimum of 3 m and a maximum of 4 m.
- xvii. A landscaped transition zone and greater setbacks in between the entryway and public sidewalk should be considered on streets with high traffic volumes.
- xviii. Apartment lobbies and main building entries should be clearly visible from the fronting street with direct sight lines into them. Where possible, apartment lobbies should have multiple access points to enhance building access and connectivity with adjacent open spaces.



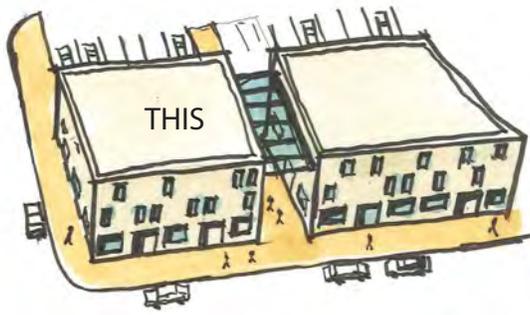
An elevated entryway or stoop integrating landscaping creates a semi-private transition zone and "eyes on the street".



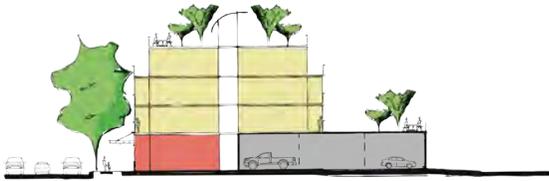
Apartment lobbies and main building entries should be clearly visible from the fronting street with direct access and sight lines into them.



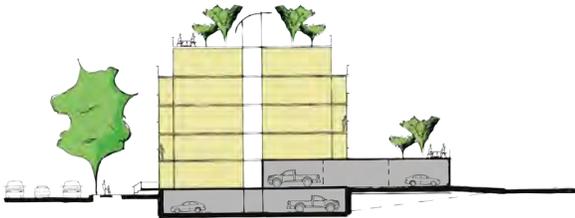
Townhouses and apartments are sited to overlook public streets, parks, walkways, and communal spaces, with parking, access, and servicing and other "back-of-house" uses located off the rear lane



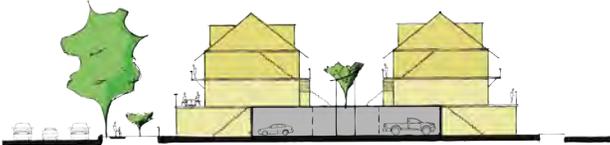
or THIS



or THIS



or THIS



NOT THIS



Off-street parking uses shall be located behind, underneath (preferred) or beside (not desired, but acceptable), but never between the front of a building and the public sidewalk.

2.4 Parking, Servicing, and Access

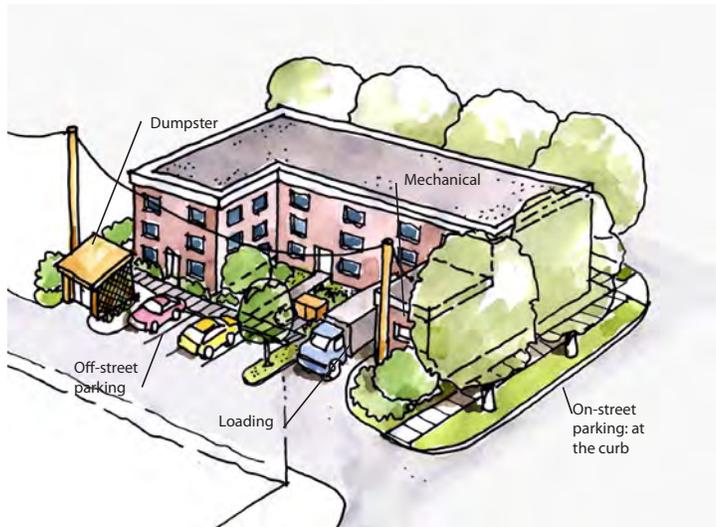
OVERVIEW

A welcoming pedestrian environment is critical to the quality and character of the downtown streets and openspaces, particularly along retail streets. Therefore, it is important that parking, access and other service functions remain primarily in/off of the lane so as not to conflict with pedestrian-oriented street activity.

The intent of the following guidelines are to ensure the provision of adequate servicing, vehicle access, and parking while minimizing negative impacts on the safety and attractiveness of the pedestrian real.

GUIDELINES

- i. Locate off-street surface parking behind or underneath buildings. Off-street surface parking located between the front of the building and the public sidewalk or adjacent to other public openspaces is strongly discouraged and should be avoided.
- ii. Structured underground or “tuck-under” parking is preferred over off-street surface parking
- iii. Where off-street surface parking is unavoidable, it should be located to the rear of the building with parking access from the lane or side street.

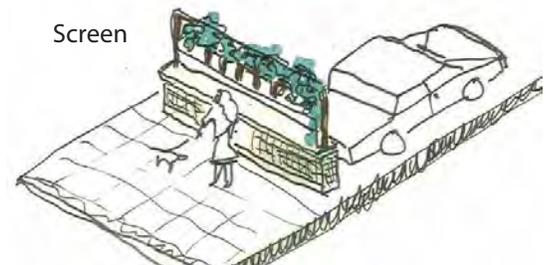


‘Back-of-house’ uses should be located behind buildings with access off the lane and screened with landscaping to minimize impacts on the pedestrian environment

- iv. Off-street parking located between the front face of a building and the public sidewalk is not permitted along key primary and secondary retail streets and is strongly discouraged along other streets within the downtown.
- v. If unavoidable, off-street surface parking located beside the building and therefore adjacent to a public sidewalk may be acceptable provided these areas are properly screened from sidewalks and other active open spaces. This includes using materials that provide a visual buffer while still allowing clear visibility into the parking areas to promote personal safety and security. Screening could include landscaping, such as a trellis or grille with climbing vines.
- vi. Locate public on-street parking at the curb to provide convenient and easy access to commercial and residential entrances.
- vii. In general, vehicular access should be from the lane. Where there is no lane, and where the reintroduction of a lane is difficult or not possible, access may be provided from the street, provided that:
 - Access is from the long face of the block
 - There is minimal interruption of the pedestrian realm and streetscape treatment
 - Waiting or pick-up/drop-off areas are located internal to the site, not in the public right-of-way
 - There is no more than one interruption per block face and only one curb cut on the street
- viii. Any vehicular entrance and its associated components (doorways, ramps, etc.), whether from the street or lane, should be architecturally integrated into the building so as to minimize its exposure.
- ix. Vehicular entrances and curb cuts are not permitted along 100th Street and 100th Avenue within the downtown study area. Clear lines of site should be provided at access points to parking, site servicing, and utility areas to enable casual surveillance and safety.
- x. Shared parking and access is encouraged, where possible.
- xi. Avoid large parking lots by breaking up large lots into smaller ones by incorporating pedestrian pathways and landscaping.
- xii. For hotels, incorporate adequate and comfortable drop-off areas that are directly adjacent to lobbies and that minimize impacts on the pedestrian realm and streetscape.



If surface parking adjacent to pedestrian areas is unavoidable, it should be screened using a trellis, landscaping, or climbing vines.



Off-street surface parking lots should be heavily landscaped and broken up.



Hotels should incorporate convenient and safe drop-off areas directly adjacent to lobbies while minimizing impacts on the pedestrian realm.



Weather protection in the form of awnings or canopies contributes to the character and pedestrian comfort of streets.



Canopies provide weather protection over a large area in front of buildings.



Along commercial streets awnings and articulated store fronts create weather protected areas for seating.

2.5

Weather Protection

OVERVIEW

Projecting upper storeys and overhangs, canopies, and awnings are all desirable measures for providing necessary weather protection on private development along public streets or on privately owned property. Building permits are required for awnings, canopies and other types of encroachments onto city-owned properties. Types of weather protection and approaches include:

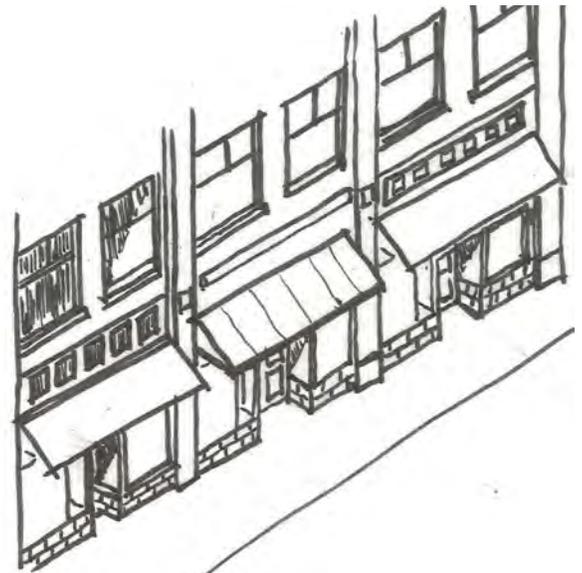
- **Awnings:** light, detachable structure of fabric, sheet metal or other flexible material supported from the building by a frame (fixed or retractable) to offer shelter from sun and rain.
- **Canopies:** A rigid structure extending out from the building face to provide shelter from sun and rain, supported entirely from the building.
- **Overhangs:** Where buildings are set back from the property line, structural building overhangs can also function as sun and rain protection for pedestrians.

GENERAL GUIDELINES

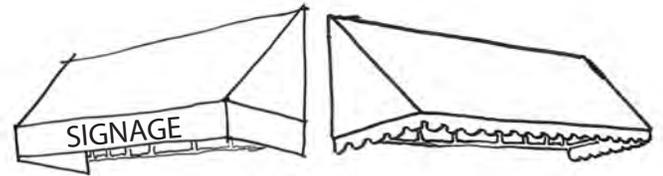
- i. Provide weather protection over storefronts and display windows and in front of buildings adjacent to bus zones and street corners where people wait for traffic lights.
- ii. Place awnings and canopies to reflect the architecture and fenestration pattern (placement of windows and doors) of the building façade.
- iii. Awnings and canopies should be regularly maintained and cleaned, preferably every 3 or 4 months, particularly in areas and periods of high dust and dirt accumulation.
- iv. Placement of awnings and canopies should balance weather protection with daylight penetration. Avoid opaque canopies that run the full length of façades.

GUIDELINES — AWNINGS

- v. Awnings are preferred to canopies for use on storefronts less than 10 m in length.
- vi. Three-point or four-point awnings are preferred.
- vii. Avoid the use of quarter-barrel awnings.
- viii. Awnings should have a minimum vertical clearance of 2.5 m measured from the sidewalk. Awnings should extend out over the sidewalk by a minimum of 1.5m, with greater coverage desirable in areas of high pedestrian traffic and where sidewalk widths are adequate. Awnings should not occupy more than two-thirds of the total sidewalk width.
- ix. Awnings shall have a minimum slope of 30 degrees to allow for proper drainage and the cleaning action of rain and wind.
- x. Design of awnings should be sympathetic to the style, scale, form, and period of the building.
- xi. Construct awnings of durable, colour-fast material. This may include reinforced plastic-coated fabric provided that the look and feel of canvas is maintained.
- xii. Awnings should be tightly stretched over a rigid metal frame in order to minimize the accumulation of dirt through sagging and to keep a neat appearance.
- xiii. Awnings as signs (and signs as awnings) are generally discouraged. Signage on the front face of a 4-point awning is acceptable provided lettering does not exceed 0.3 m in height along the front face of the awning.



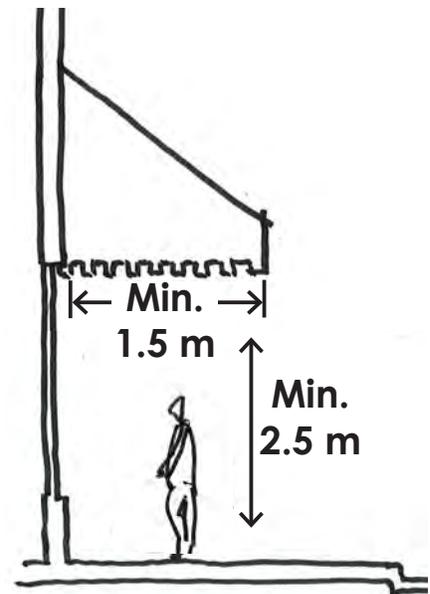
The placement of awnings and canopies should reflect the building façade's articulation and fenestration pattern.

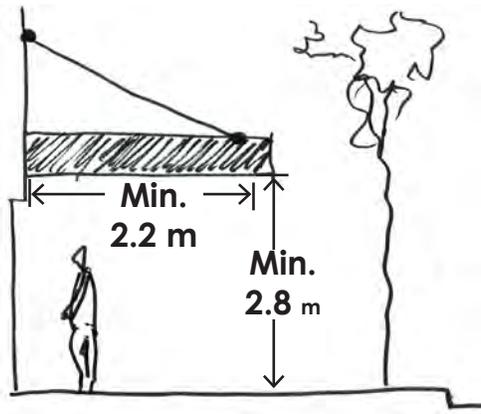


4-point awning with compatible signage.

3-point awning with valance.

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Transparent canopies made of glass and wood are preferred to allow light and to emphasize wood in the architectural expression of buildings.



A well placed canopy supports a vital streetscape.

GUIDELINES — CANOPIES

- xiv. Canopies are preferred for use on building frontages over 15 m, along major pedestrian routes, and on theatres and other buildings in front of which people wait for significant durations.
- xv. Canopies should have a minimum vertical clearance of 2.8 m measured from the sidewalk. Canopies should preferably extend out over the sidewalk by at least 2.2 m while maintaining a minimum 1.0 m setback from the outer face of the curb.
- xvi. Use transparent and translucent canopies to allow natural light to penetrate to storefronts and the sidewalk.
- xvii. Wood and glass are preferred and steel and glass are acceptable for canopies.
- xviii. Design canopies extending over building frontages greater than 30 m to reduce their apparent scale and length to better relate to the human scale of the street. The preferred approach is to break up the canopy to reflect the architecture and fenestration pattern of the building façade
- xix. Incorporate architectural glare-free lighting into the canopy soffit that has either a low-level light source or one not directly visible to pedestrians. Fluorescent tube lights are not permitted for this use.
- xx. Canopies shall be designed in compliance with building code requirements and must, unless indicated otherwise by the City, be constructed in a way as to be removable should this be required by the City at a future date.

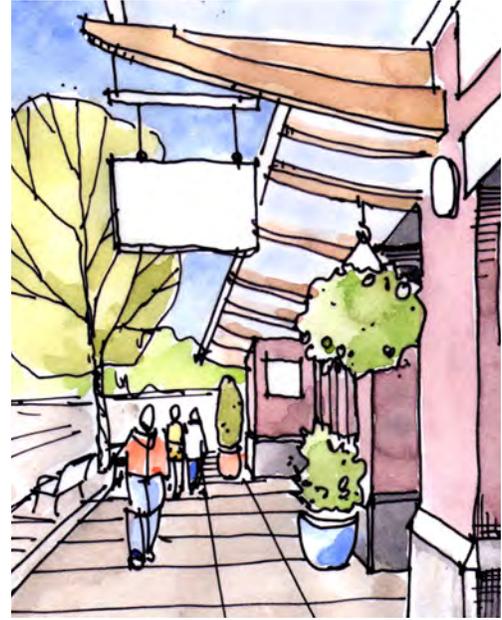
2.6 Signage and Lighting

OVERVIEW

Integrated building lighting can make a positive contribution to the sense of safety and security pedestrians experience in the downtown through a combination of street, sidewalk, and architectural lighting. A signage and lighting program for any commercial development should be designed as a totality, with signs, lighting, and weather protection architecturally integrated from the outset.

GUIDELINES — SIGNAGE

- i. Provide attractive signage on commercial buildings that clearly identifies uses and shops but which is scaled to the pedestrian rather than the motorist.
- ii. Provide visible signage identifying the building address at all entrances.
- iii. Limit signage in number, location, and size to reduce visual clutter and make individual signs easier to see.
- iv. A single external sign band may be applied to each façade at the first storey, and may not exceed 0.9 m in height along any length.
- v. Signage shall be externally lit. Signage within shop front glazing may be backlit, but shall not exceed 0.5 m in height and 2 m in length.
- vi. The following are preferred or acceptable types of commercial signage in the downtown:
 - Projecting two-dimensional or blade signs suspended from canopies and awnings (fitting within a 92 cm X 153 cm (36" x 60") horizontal rectangle),
 - Flush-mounted fascia signs
 - Externally lit signs
 - Small vertical banners and projecting signs provided individual letters do not exceed 45 cm (18") in any dimension.
 - Individual cut-out or silhouette letter signs mounted on storefronts. Individual letters should not exceed 45 cm (18") in any dimension.
- vii. Internally lit plastic box signs and large signage on awnings are strongly discouraged and should be avoided throughout the downtown. Pylon (stand alone) signs, and rooftop signs should also be avoided in the downtown.



Blade signs hung from canopies or awnings are scaled to pedestrian activity.



Small vertical projecting signs should be designed to be attractive when approached by pedestrians.



Neon signs brighten up the streetscape at night or on grey days.



Individual cut-out letter signage with gooseneck lighting.



A combination of wall-mounted lights, valence and up lighting animate this building façade and adjacent pedestrian areas.



GUIDELINES — LIGHTING

- viii. Illuminate building façades and features by providing architectural lighting on the face of commercial buildings and at main entries to multi-family residential buildings to help create a sense of safety and intimate space around a building.
- ix. Provide pedestrian-scaled lighting with high-quality design detail above sidewalks for night time visibility.
- x. Full-spectrum white light or incandescent sources are preferred in public areas.
- xi. Ensure lighting is sensitive to nearby residential uses. Avoid visible, glaring light sources by using down-lights or up-lights with cut-off shields.
- xii. Gooseneck lights and sconces applied to fascias underneath weather protection elements are the preferred types of storefront lighting.
- xiii. Incorporate valence lighting into canopies and up-lighting to illuminate pathways.
- xiv. Use of LED lighting for storefronts and street trees is encouraged.
- xv. Avoid the use of exterior fluorescent light sources.
- xvi. Incorporate architectural glare-free lighting into the canopy soffit that has either a low-level light source or one not directly visible to pedestrians. Fluorescent tube lights are not permitted for this use.



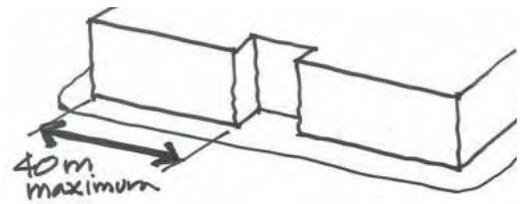
2.7 Height and Massing

OVERVIEW

The intent of the following guidelines is to reduce the visual mass of large buildings, and to ensure the sensitive transition from new development or redevelopment to existing adjacent buildings and open spaces.

GUIDELINES

- i. Break up the visual mass of large buildings to reduce their visual impact on the pedestrian realm and to create variation along the street. This can be achieved by incorporating minor visual breaks in building façades using vertical setbacks and upper-storey step-backs.
- ii. Limit the visual mass of building façades to lengths of 40 m or less. This can be achieved by incorporating a substantial setback such as a courtyard or framed periodic openings to provide public views into private open space features.
- iii. Buildings over 4 storeys in height shall have a maximum frontage length of 40 m. Buildings 3 storeys in height or lower shall have a maximum frontage length of 80 m.
- iv. A minimum 3-storey street-wall should be maintained for buildings throughout the downtown, except along the south side of downtown Avenues where a 2-storey street wall is desired to allow sunlight penetration to the north side of the street.
- v. Buildings up to 4 storeys in height should step the fourth storey back by a minimum of 1.5 m.
- vi. Buildings of 5 to 6 storeys in height should step back the top two storeys by a minimum of 1.5 m.



Limit the visual mass of building façades to lengths of 40 m or less.



A courtyard can be used to break up the visual mass of large buildings.



Minor visual breaks in building façades.



Vertical setbacks and upper storey step-backs break up the visual mass of these buildings.



Corner treatment creates a sense of welcome.



Façade modulation, window treatments, and building step-backs create an interesting and welcoming streetscape.



Special corner treatment creates an welcoming outdoor space.

2.8 Architectural Concept: Achieving a Human Scale

OVERVIEW

These general guidelines for architectural are not intended to be prescriptive, but rather to encourage flexibility and innovation in building design and character. The overall intent is to create buildings and other structural elements that are scaled to the pedestrian, encourage pedestrian activity and welcome users.

Human Scale

Achieving human scale refers to the use of architectural features, details, and site design elements that are of human proportion and clearly oriented for pedestrian activity. A building has good human scale if its details, elements, and materials allow people to feel comfortable using and approaching it.

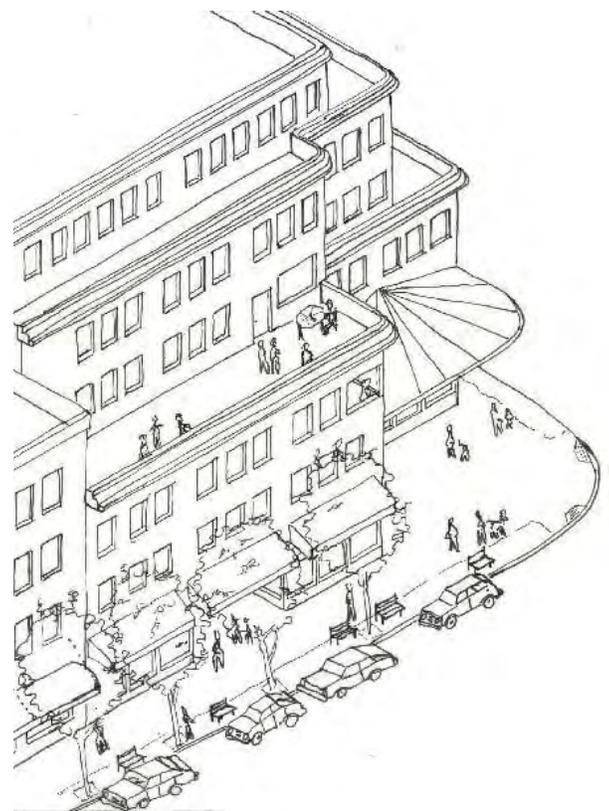
Building Articulation

Many street frontage design elements, both horizontal and vertical, help to create an interesting and welcoming streetscape. These include building materials, special ground floor design treatments, façade modulation, corner treatments, building step-backs for upper storeys, and façade elements such as window treatments, building entries, and other architectural details. All of these help define the public realm as a welcoming place.

GENERAL GUIDELINES

- i. The design of new buildings and renovated existing buildings should express a unified architectural concept that incorporates both variation and consistency in façade treatments (for example, by articulating façades into a series of intervals).
- ii. Design buildings to express their internal function and use.
- iii. Incorporate into building façades a range of architectural features and design details that are rich and varied to create visual interest when approached by pedestrians.

- iv. Examples of architectural features include:
 - Building height, massing, articulation and modulation
 - Bay windows and balconies
 - Corner features accent, such as turrets or cupolas
 - Decorative rooflines and cornices
 - Building entries
 - Canopies and overhangs
- v. Examples of architectural details include:
 - Treatment of masonry (ceramic tile, paving stones, brick patterns, etc.)
 - Treatment of siding (for example, the use of score lines, textures, and different materials or patterning to distinguish between different floors)
 - Articulation of columns and pilasters
 - Ornament or integrated artwork
 - Integrated architectural lighting
 - Detailed grilles and railings
 - Substantial trim details and moldings
 - Trellises and arbors
- vi. Locate and design entrances to create building identity and to distinguish between individual commercial and/or residential ground floor units. Use a high level of architectural detail and, where appropriate, landscape treatment to emphasize primary entrances and to provide “punctuation” in the overall streetscape treatment.
- vii. Design balconies as integral parts of buildings and to maximize daylight access into dwellings through the use of glazed or narrow metal spindle guardrails.
- viii. Clearly distinguish the roofline from the walls of buildings (for example, through the use of a cornice, overhang, or decorative motif).
- ix. Ensure that new development responds to the positive architectural characteristics of existing development. Achieve a good fit with new or renovated buildings by ensuring that such development references the distinctive and desirable architectural qualities of adjacent buildings. This includes building massing, height, articulation and scale; Similar or complementary architectural style and roof forms; Similar building details and fenestration proportions and patterns, and; Similar or complementary materials and colour



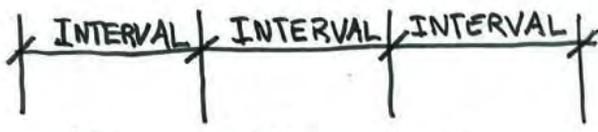
Architectural details and features help to create visual interest when approached by pedestrians



Architectural features and details combined in a simple and pleasing composition.



Contemporary interpretations reference traditional architectural styles without being faux, tacky or kitschy.



x. Incorporate articulation into the design of new buildings to create intervals in their façades to break up their perceived massing and respond to the existing pattern along the street. Articulation approaches can include:

- Façade Modulation – stepping back or extending forward a portion of the façade to create a series of intervals in the facade.
- Repeating window patterns at intervals that correspond to extensions and step backs (articulation) in the building facade.
- Providing a porch, patio, deck, or covered entry for each interval
- Providing a balcony or bay window for each interval
- Changing the roof line by alternating dormers, stepped roofs, gables, or other roof elements to reinforce the modulation or articulation interval
- Changing the materials with the change in building plane
- Provide a lighting fixture, trellis, tree, or other landscape feature within each interval.



This residential project in Whitehorse Uses variation in materials and roof lines integrated with the building articulation and fenestration pattern

WINDOWS AND DOORS

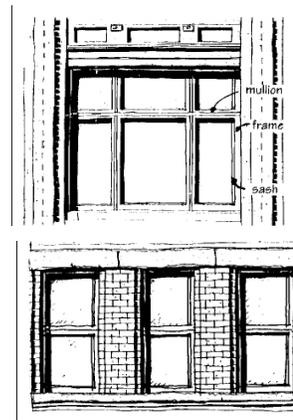
- xi. Windows can be used to reinforce the human scale of architecture by incorporating individual windows in upper storeys that:
- Are vertically proportioned and approximately the size and proportion of a traditional window
 - Include substantial trim or molding
 - Are separated from adjacent windows by a vertical element
 - Are made up of small panes of glass
 - Are separated with moldings or jambs but grouped together to form larger areas of glazing
- xii. The use of figured or frosted glass or tinted glazing is discouraged for windows facing the street except for compatible use of stained glass or where figured or frosted glass comprises a maximum 20% of the glazing. This creates a welcoming, visually interesting and transparent street frontage.

EXTERIOR MATERIALS

- xiii. In general, new buildings should incorporate natural building materials into façades to avoid a “thin veneer” look and feel, incorporated with more modern treatments, including glass curtain walls for office buildings.
- xiv. The following materials are recommended, acceptable, or discouraged for use in the downtown:

Recommended:

- Natural wood materials, including:
 - » Milled and un-milled timbers
 - » Window and door trim
 - » Canopy structures
 - » Signage
- Brick masonry
- Glazed tile
- Stone
- Concrete, painted
- Flat profile “slate” concrete tiles
- Glass and wood for window assemblies
- Standing seam metal roofing
- Glass curtain walls for office and institutional buildings



Punched windows with vertical proportions create variation and texture in the façade and help achieve a human scale.



Tasteful use of timbers integrated with a range of complimentary colours and materials.



Acceptable:

- Pre-finished metal, non-corrugated type, emphasizing either vertical or horizontal arrangements but not both
- Limited amounts of stucco

Discouraged:

- Vinyl siding
- Large expanses of stucco
- Swirl Type Stucco
- Vinyl for window frames

xv. Landscaping should be used to create a positive interface between buildings and streets by using perennials, shrubs, and trees to soften buildings, where appropriate.



Use of brick masonry and stone on building exterior is encouraged.



Use of wood on building exteriors is encouraged



Landscaping is used to create a positive interface between building and street.

2.9 Livability: Ensuring Green and Healthy Buildings and Landscapes

OVERVIEW

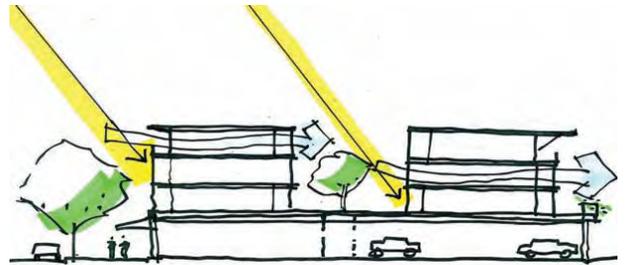
Building design and site planning should reduce the overall “ecological footprint” (energy use, waste, and pollution) of new development while also maximizing liveability. This can be achieved by maximizing passive lighting, heating and cooling, providing usable outdoor amenity spaces, and being responsive to the adjacent context and solar aspect.

GUIDELINES

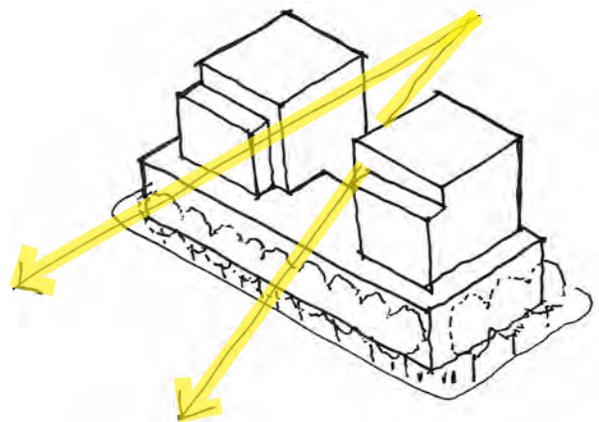
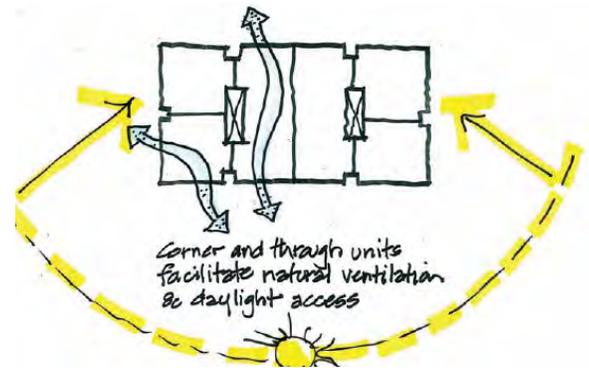
- i. Site and orient new development so that the majority of living spaces receive direct sunlight (for the daylight hours at equinox).
- ii. Design residential buildings to receive daylight and natural ventilation from at least two sides of the building, or from one side and a roof. Where possible, dwellings should have a choice of aspect: front and back, or on two sides (for corner units).
- iii. Design new buildings with greater floor-to-ceiling heights to increase the amount of interior space that can be lit from windows.
- iv. Dwelling units with exterior access on only one side (i.e., buildings with a double loaded corridor) should always face a good view or the direction of the sun (ideally both). These buildings and units are most suitable as wide frontages with shallow floor plans to allow adequate penetration of daylight. Dwelling units with exterior access on two sides are usually suitable for narrower frontages and deeper floor plates.
- v. Buildings with double loaded corridors should be oriented in a north south direction so that all units receive direct sunlight at some point during the day.



Living and outdoor amenity spaces are oriented for optimal access to sunlight.



Court yard designs create dual aspect units and amenity spaces for residents.





Courtyards and greenways provide common outdoor space, and act as defining elements.



Patio space and landscaping create a buffer to minimize the disruption of privacy to and from adjacent dwellings and open spaces.



This children's play spaces is sited to be under casual surveillance by upper story and ground-oriented units.

- vi. Site and design new development to minimize the disruption of privacy to outdoor activities of adjacent dwellings and private open spaces.
- vii. Residential and mixed-use projects should incorporate courtyards and greenways as defining elements of the project while providing a common garden area, play space, gathering place, walkway, or other use located to maximize the amount of direct sunlight received.
- viii. Incorporate safe and sunny play areas for children that have surveillance from ground-oriented and upper-storey dwellings in residential developments.
- ix. Where at-grade space is limited, rooftop common open spaces are encouraged. Upper-storey terraces are encouraged to open onto rooftop gardens, where possible, to increase access to semi-private outdoor amenity space.
- x. Incorporate green roofs, where appropriate, to help absorb stormwater and provide outdoor amenity space for residents and workers.
- xi. Retention and infiltration best management practices for rainwater should be used as appropriate.
- xii. Minimize light pollution through the use of full cut-off lighting, avoiding light reflectance, and directing lighting downwards. Exceptions may be made for signage and architectural lighting.
- xiii. Each dwelling unit in a residential or mixed-use project should incorporate direct access to a usable private outdoor space such as a patio, balcony, or upper-level terrace. These should be of adequate size and be covered to ensure comfort and usability.



A landscaped pathway located adjacent to this residential building partially screens the lower floor units from the park (foreground) while also softening the building's appearance, helping to integrate it into the landscape.

2.10 Personal Safety, Security, and Accessibility

INTENT

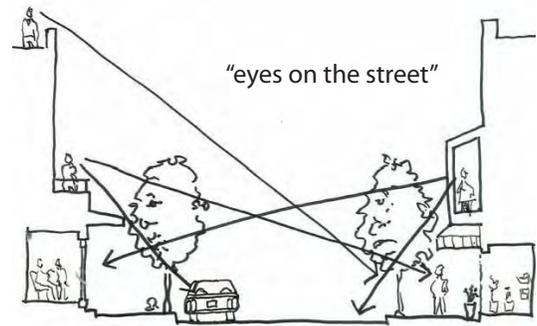
To enhance personal safety and security through building siting, orientation, and design, and to ensure buildings and open spaces accommodate and provide access for all users and abilities.

GUIDELINES

- i. Ensure the design of new development increases “eyes on the street” with the placement of windows, balconies and street-level uses, and allows for casual surveillance of parks, open spaces, and children’s play areas.
- ii. Avoid blank, windowless walls that do not permit residents or workers to observe public streets and open spaces.
- iii. Incorporate the creative use of ornamental grilles over ground-floor windows or as fencing, as necessary and where appropriate.
- iv. Provide adequate lighting along streets and at entrances to enhance the sense of personal safety and security.
- v. Design parking areas to allow natural surveillance by retaining clear lines of sight to and between public sidewalks and building entrances for those who park there and for users of nearby buildings.
- vi. Eliminate structures and landscaping materials that provide hiding places for undesirable activity. Generally, landscape elements that shield areas above eye level or below the knee are appropriate.
- vii. Ensure all pedestrian routes including those leading to building entrances are safe and easy to use by a wide range of pedestrian abilities. Generally, such routes should be direct, level, obstacle-free, easily identifiable and clearly separated from vehicular routes.



Artistic security grilles on this window add character and security.



Buildings should be designed and oriented to encourage casual surveillance and “eyes on the street.”



Not This: Secure But Ugly



Better: Security with Interest

Ornamental grilles provide security and visual interest.

2.11

Environmental Considerations

OVERVIEW

All design proposals should consider the design and construction requirements posed by the area's northern climate and year-round activities. These guidelines should be used in tandem the City of Fort St. John Winter City design Guidelines (2007).

GUIDELINES

Wind

- i. Hanging signs, parapet extensions, awnings and canopies should be constructed with sufficient bracing to withstand strong winds such as might be typical of the area.

Rain

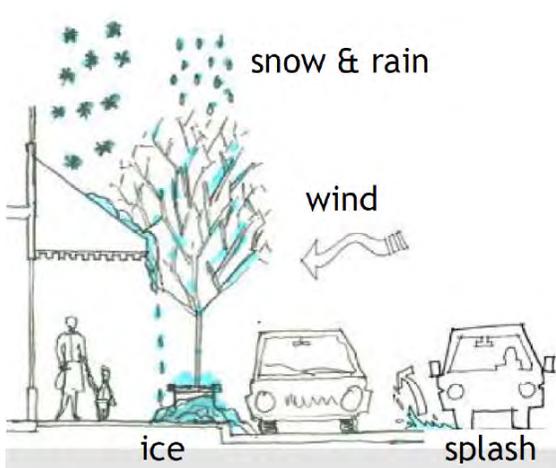
- ii. Architectural elements exposed to precipitation, such as roofs, cornices, edges, canopies and decorative detailing, should be properly designed and flashed to protect the building structure and carry water away from pedestrian pathways or human-use areas.

Snow

- iii. Any building structure upon which snow accumulates (canopies, awnings, roof forms) should be constructed in a manner conducive to spontaneous snow dump of accumulated loads into non-pedestrian areas. Snow must either be positively shed or positively retained. Shedding snow must be deflected from pedestrian areas by dormers, hipped roofs, canopies, or other means. All steps and wheelchair ramps must be covered or otherwise protected from ice and snow build-up.

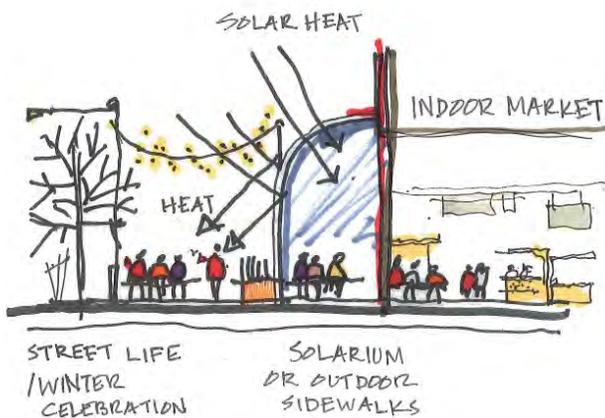
Ice

- iv. Repeated heating and cooling of snow loads can give rise to ice accumulations. Building design should therefore consider heat loss factors as a method of controlling ice build-up. Proper flashing should be accorded to areas subject to ice accumulation. Walkways, entries, and other human use areas should be designed with the aim of minimum potential ice build-up and efficient removal of accumulations that do occur.



Climate-sensitive design can be used to mitigate the effects of rain, snow, ice, splash and wind.

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2.12

Tall Buildings

OVERVIEW

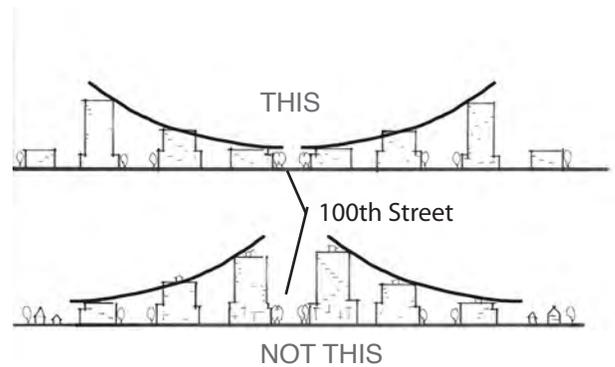
The overall intent of these guidelines are to encourage siting, massing, and design of tall buildings (over 6 stories in height) that minimize negative impacts on views, privacy, and solar access for individual units, to reduce the perceived bulk of tall buildings, and to minimize impacts of tall buildings on adjacent public streets and open spaces.

GUIDELINES

- i. Maintain an open spacing of tall buildings to ensure adequate light, air, access, and views for residents.
- ii. Buildings should transition in height away from 100th Street to maintain a low building scale on the retail high street. Tall buildings should not be located to front onto or be immediately adjacent to 100th Street for this same reason.
- iii. Locate tall buildings at key gateways to the downtown such as at 102 street and 98th street.
- iv. Tall buildings should generally be aligned perpendicular to the street, and in a north-south direction.
- v. New developments with tall buildings should incorporate a base building sited and scaled to complement adjacent buildings and to create a strong street-wall definition. (See section 2.2 Street Definition Guidelines.)
- vi. Tall buildings should incorporate ground-floor uses that have views into and access to, where possible, adjacent streets, parks and open spaces.
- vii. Tall buildings should be set back by a minimum of 5 m from the fronting public street or open space, while still achieving good street address.
- viii. Tall building address should be achieved by stepping back the base building (podium) at the primary entrance to allow the tall building to visually connect with the street. Locate primary entrances so that they are clearly visible and directly accessible from the public sidewalk, plaza, or other open space.
- ix. An interesting and varied roof form should be achieved (for example, by incorporating a top-level penthouse or amenity space to conceal appurtenances and mechanical equipment).



A new tall building has a base building incorporated to complement adjacent buildings and create strong street definition.



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The open spacing ensures adequate light, air, access and views.

PART VI: DOWNTOWN STREETSCAPE & PUBLIC REALM MASTER PLAN



CITY OF FORT SAINT JOHN Public Realm and Streetscape Master Plan

Submitted by Modus Planning, Design & Engagement
to the City of Fort Saint John
June, 2015



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INTRODUCTION AND CONTEXT

The City of Fort St. John adopted the Fort St. John Downtown Action Plan in xxxx. This plan is based on creating a walkable, vibrant and amenity rich downtown focused on revitalization of the city's two main commercial streets through the downtown core: 100th Street and 100th Avenue. The Plan was developed through an integrated, community based planning and design process and resulted in the identification of the following **5 Fundamentals for a successful Downtown:**

1. **A multi-modal transportation system** that prioritizes pedestrian safety and comfort, supports transit and cycling and gracefully accommodates vehicles;

2. **A compact mix of land uses** and activities that can generate the strong customer base that downtown businesses need to thrive, while also supporting safety with more 'eyes on the street';

3. **A high quality public realm** designed for a winter city that provides the high quality pedestrian environment and visual interest that attracts and encourages people to spend time downtown;

4. **Community, Culture and Arts** that create a family-friendly downtown that is culturally diverse, exciting and welcoming for everyone; and,

5. **Creating economic conditions for successful development** so that downtown development becomes more attractive as a place to do business for developers.



INTRODUCTION AND CONTEXT

The Action Plan further identified the 10 Big Moves for plan implementation - a set of catalyst projects, public investments and policies that, together, will transform the heart of Fort St. John from good to great.

10 Big Moves

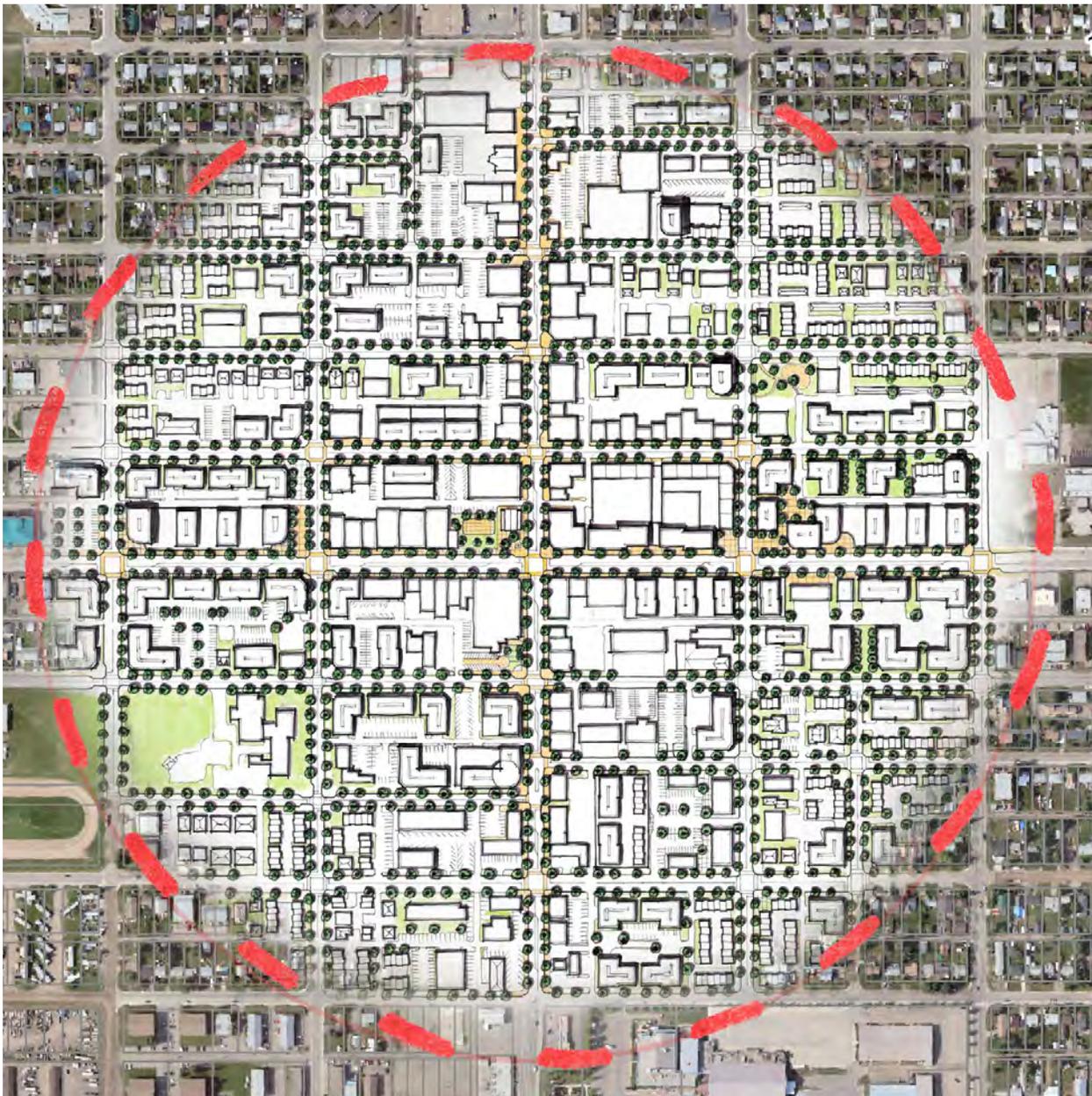
- 1 CREATE STREETS FOR PEOPLE
 - Provide comfortable, safe, and attractive streetscapes and public gathering spaces in the downtown.
- 2 DOWNTOWN LIVING
 - Create more opportunities for people to live in the downtown to support local businesses/services and encourage vitality.
- 3 MARKET PLAZA
 - Develop a mixed use urban plaza with programming and facilities for public events such as markets, festivals and concerts to be held year-round.
 - Locate the plaza in a prominent location as a gateway feature and activate with adjacent active retail and high density housing.
- 4 VACANT NO MORE
 - Encourage development of vacant sites, with buildings and uses that showcase the future vision for downtown. implement interim uses/improvements until such time as they are redeveloped.
- 5 MAKE PARKING WORK
 - Ensure convenient public and private parking, including on-street parking, to maximize accessibility to downtown businesses, services, jobs and housing.
- 6 MAINTAIN THE CORE
 - Maintain lanes in the core area and provide and maintain sidewalks on both sides of the street to ensure safe and convenient connections.
- 7 NPCC IMPROVEMENTS
 - Incorporate a terraced plaza at the south entrance and increased glazing on the north east corner to enhance and better connect the North Peace Cultural Centre to adjacent streets and open spaces.
- 8 VILLAGE AVENUE 'FESTIVAL STREET'
 - prioritize pedestrian oriented mixed use development and undertake streetscape improvements on 101 Ave between 102 and 98 Streets to support 101 Ave as the City's 'festival street' and 'block party' venue.
- 9 ENERGY INNOVATION DISTRICT
 - Encourage a mix of education and employment uses on part of the former hospital site to showcase local and regional energy and resource sectors.
- 10 100TH STREET GREENWAY
 - Create and maintain a direct, comfortable and safe pedestrian and bicycle 'greenway' connection between the downtown core and Centennial Park, along the east side of 100th St.

BIG MOVES



ILLUSTRATED CONCEPT PLAN

The Illustrated Concept Plan represents a synthesis and conceptual implementation of the vision, goals and actions laid out in the Downtown Action Plan to paint a picture of what the future could look like based on the implementation of the 5 Fundamentals and 10 Big Moves on the ground. It is important to note that this is highly conceptual and only one possible configuration; the type, size and location of future development may differ from that shown but still remain within the intent of the plan.



PURPOSE AND OVERVIEW

The purpose of the Downtown Public Realm and Streetscape Master Plan (PRSMP) is to implement streetscape improvements and the introduction of new plazas identified in the action plan as described in the five fundamentals and ten big moves. This includes a commitment to creating a high quality downtown public realm as emphasized in the Action Plan and as directed in the recently adopted Transportation Master Plan (TMP). In this way the downtown public realm and streetscape master plan together with the TMP, are important companion documents whose implementation will need to be coordinated in tandem with other required infrastructure improvements (water, sanitary sewer, storm water) to realize the vision for the Downtown as laid out in the Action Plan.

What is the Public Realm?

The public realm comprises all publicly accessible land including streets, lanes, sidewalks, boulevards, parks and public open spaces.

What is a Public Realm Master Plan?

It is a planning / urban design document that establishes a vision, a framework, specific projects, standards and guidelines for future redevelopment within the public realm.

What are the benefits of a Public Realm Master Plan?

It provides the City with a unified design standard and other tools for creating a cohesive and understandable public realm that can be implemented incrementally over time, ensure a coherent, consistent and complementary palette of materials, furnishings and planting throughout a specified area, and integrate well with adjacent private realm development.

How is the Public Realm Master Plan utilized?

It is a strategic document that City staff will utilize when planning or reviewing proposed redevelopment within and adjacent to the public realm. It complements policies and guidelines for land use and architectural form.

How is the Public Realm and Streetscape Master Plan structured?

The Master Plan is lead by a set of guiding principles (presented on page 8). These are followed by conceptual/ schematic designs that make up the master plan including materials, furnishings, trees and high level cost estimates to guide future phasing, detailed design and construction of identified public realm improvements in the downtown.

How will the Public Realm and Streetscape Master Plan be Phased and Implemented?

Public realm improvements identified in the master plan are presented as discrete projects which can be phased incrementally over time. This will allow the City to undertake strategic public realm projects to support private investment in the downtown and to coordinate streetscape enhancements with infrastructure upgrades, road

GUIDING PRINCIPLES

Unifying Features

Recommended public realm enhancements include material elements that are consistent throughout the downtown core and help create a sense of place and unity. Other recommended enhancements incorporate elements that are unique at special nodes, such as the Old Fort Hotel site or the North Peace Cultural Centre South Plaza and Bus Exchange, to create contrast and distinction.

Consistent downtown elements include the overhead street and pedestrian lighting, street furniture, and the use of tinted concrete banding in the sidewalks to delineate furnishing strips and storefront zones. Aesthetic details such as special concrete pavers, decorative tree grates and custom designed pedestrian crosswalks further enhance the public sphere. Trees and landscaping are proposed for comfort, beauty, and ecological function. A continuous planting of street trees also improves pedestrian safety by slowing vehicular traffic and physically separating pedestrian areas from roadways. Deciduous trees planted at regular intervals along 100 Street and 100 Avenue will create a consistent canopy on either side of the street enhancing the sense of enclosure, and together with distinctive paving materials, mark their special function as a pedestrian focused commercial streets.

The following design principles encompass the broad vision for the downtown and guide the form, function, and materiality of the public realm environment.

CREATE GOOD BONES



DESIGN FOR ALL SEASONS



MAINTENANCE IS KEY



Guiding Principles

Create Good Bones

Provide a streetscape design that has “good bones” to allow it to be adaptable and resilient to future change. Establish a cohesive street-furnishing palette. The consistent use of materials and colours helps tie together the streetscape environment. Select materials and furnishings that reflect a contemporary timeless character which will not feel “dated” in a few years. Design with long-term maintenance and procurement budgets in mind.



CONSISTENT USE
OF COLOUR IN FURNISHINGS



STREET TREES
PROVIDE COHERENCE & SHADE

TIMELESS AND DURABLE MATERIALS



SCORED
CONCRETE



CONCRETE
PAVERS



STEEL AND
WOOD

Guiding Principles

Design for All Seasons

A successful downtown Fort St. John must reflect its northern climate. It needs to be an attractive place year-round. The city should strive to quickly remove snow, dirt and gravel in a timely manner. Select materials that are as comfortable in summer as in winter. For example, wood or recycled plastic instead of metal for seats. Shelter from the elements, seasonal lighting, well lit streets and appropriate materials will provide a festive feeling, warmth, safety and orientation during the long winter months.



SNOW STORAGE IS BUILT IN

LIGHT ILLUMINATES NIGHT STREETS

Maintenance is Key

A well maintained streetscape is a clear indicator of how a community has embraced and taken ownership of its public realm. It is not only a matter of keeping elements clean and in good repair, it is also about selecting durable and well-designed furnishings and materials for effective maintenance and repair. Good design details and quality of workmanship will add to the overall durability of the scheme. Quality of materials is often associated with higher cost, however, the right choice of materials may determine the long-term success of the project. An intelligent stocking program will keep order costs down and reduce delivery times for replacements.

STREETSCAPE

The first big move and top priority identified in the Action Plan is to **Make Streets for People** by improving the quality of the pedestrian environment.

This includes:

Slow the pace of traffic in downtown while maintaining convenient vehicle access to, from and through it;

Reduce driveway access and encourage/utilize lane access for vehicles;

Establish alternative route options for through traffic that is travelling through the downtown to and from destinations that are outside of the downtown, especially commercial vehicles;

Create and maintain attractive streetscapes by cleaning dirt and providing comfortable sidewalks, benches, street trees, pedestrian lighting, and other furnishings;

Encourage active, pedestrian oriented uses and activities such as small shops and sidewalk cafes fronting on to 100th Street and 100th Avenue in the downtown area;

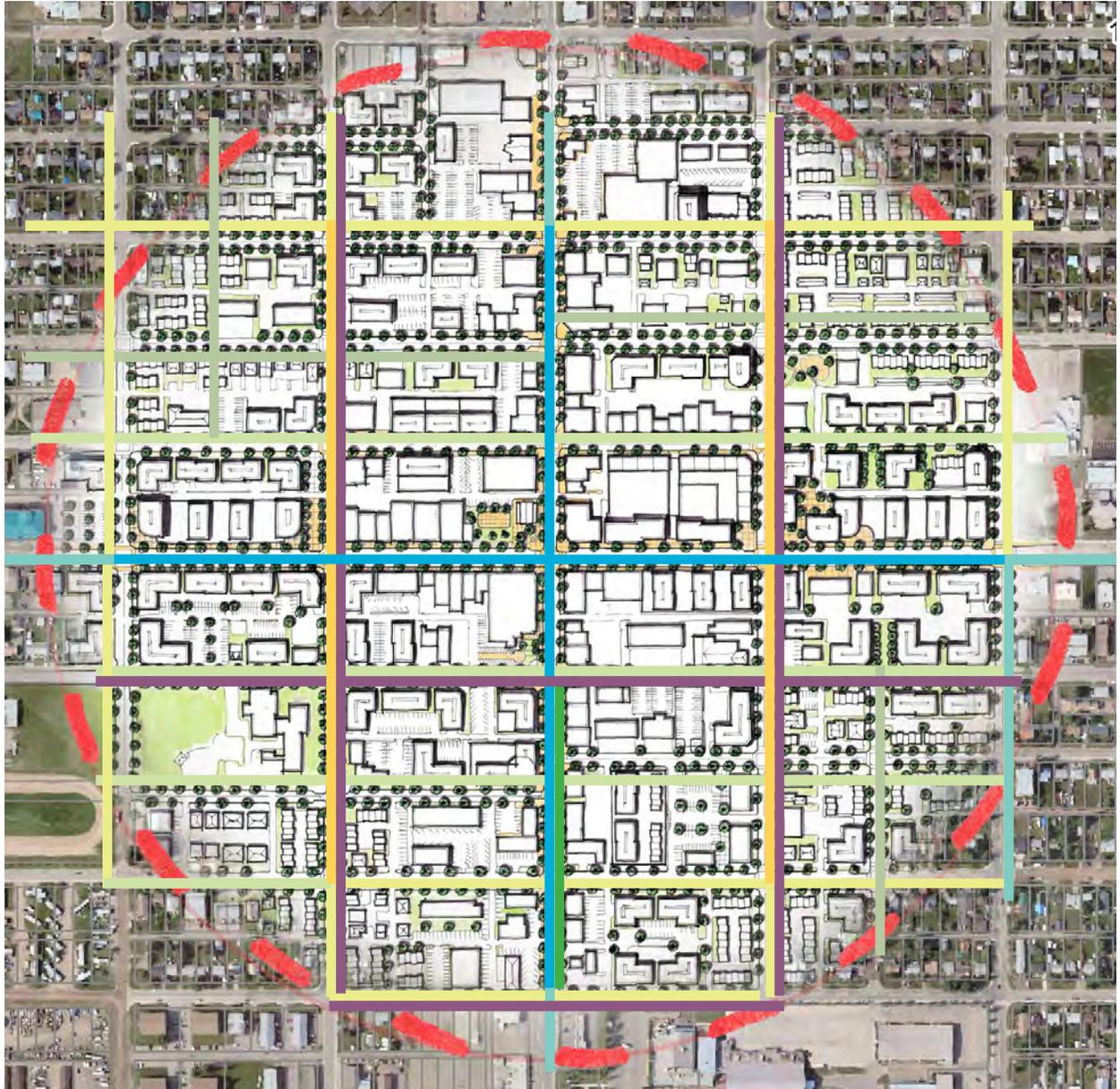
Re-configure 100th Street and 100th Avenue in the downtown core from its current four lane condition with no left turn lanes and narrow sidewalks, into a three lane condition with alternating left turn lanes, median snow storage and wider sidewalks.

The recently updated Master Transportation Plan (MTP) includes a new Downtown Collector Classification to implement this configuration and intent.

A re-configuration from four lanes to three enables wider sidewalks and a center median with an alternating left turn lane and temporary snow storage. This would be a significant capital expenditure but of great benefit to the downtown. This improvement would be coordinated with necessary infrastructure improvements, and phased with re-configuration of the city-wide street network as discussed on pages 14 and 15.



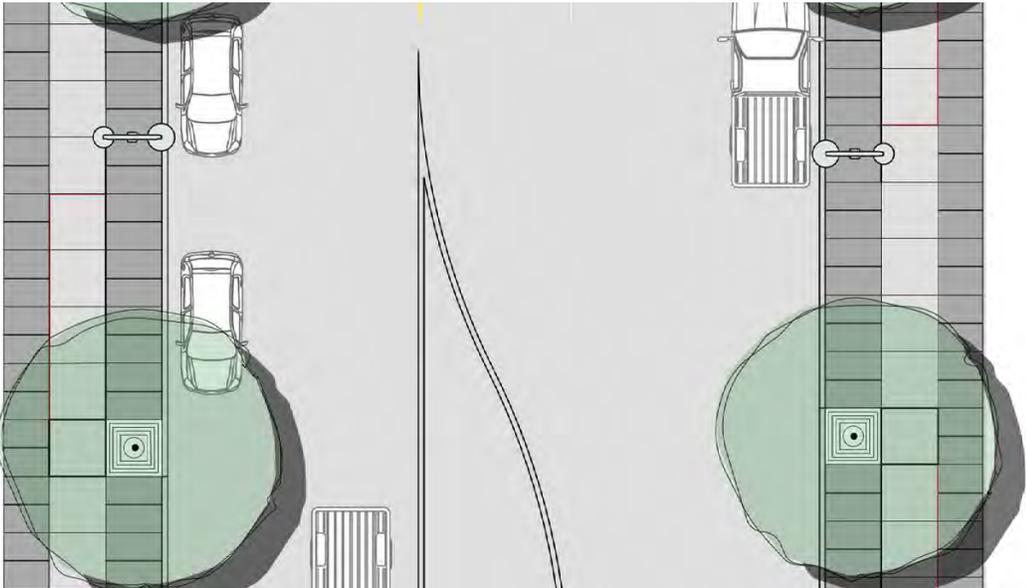
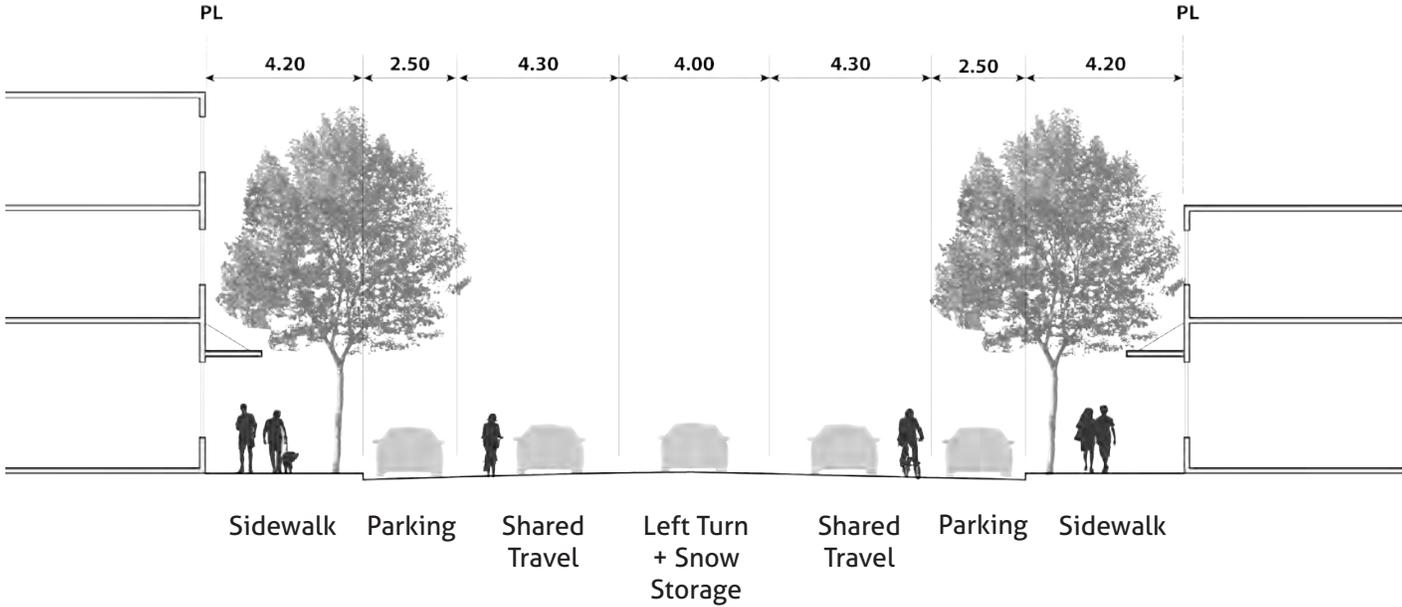
STREET CONFIGURATIONS



Street Configurations

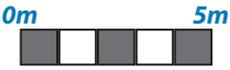
-  Downtown Major Collector
-  Major Collector
-  Downtown Minor Collector
-  Minor Collector
-  Local
-  100 Street Greenway
-  Bike Routes

Downtown Collector: Typical Section



LEGEND

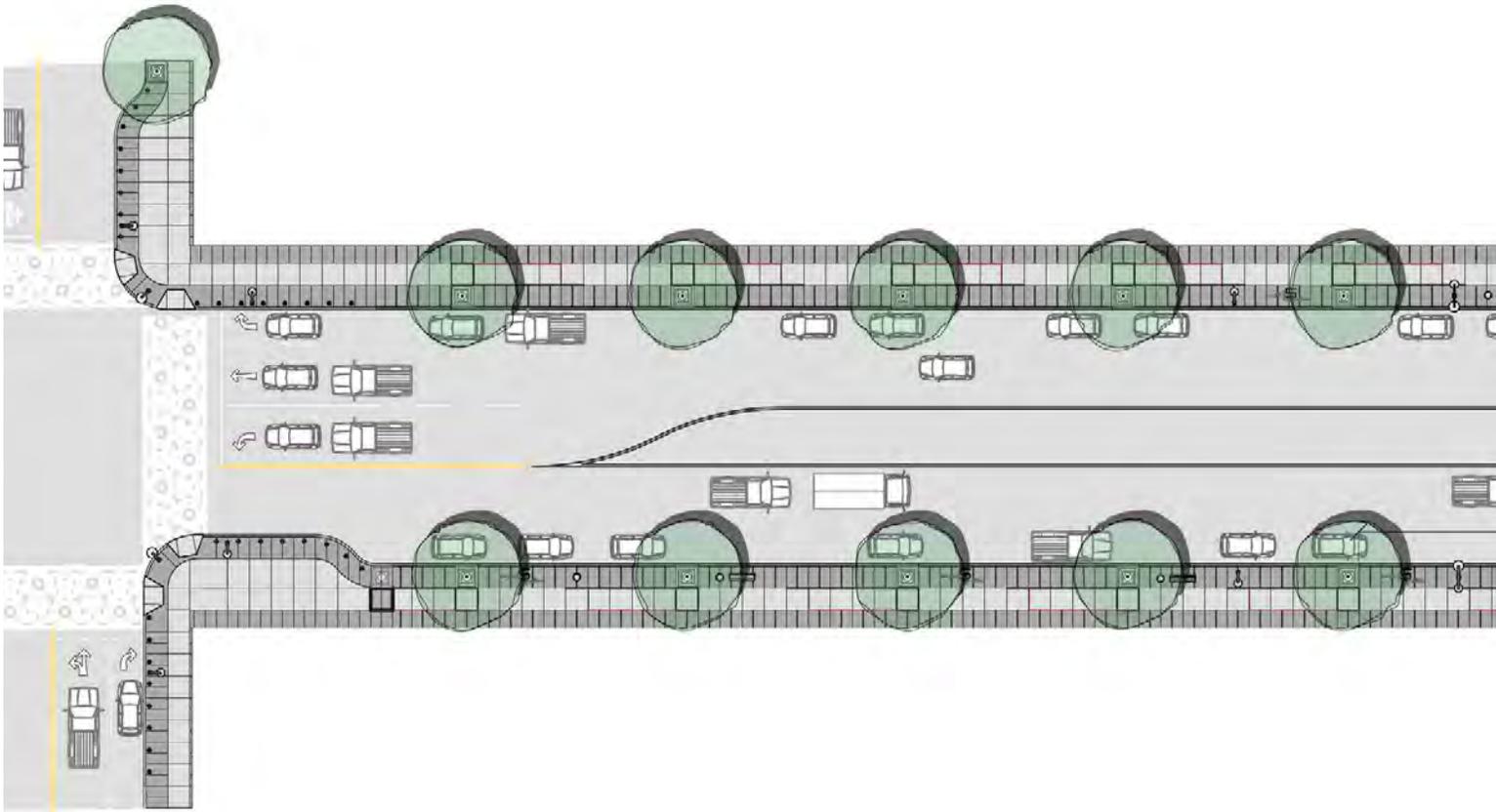
- Bench
- Bike Rack
- Ped./Roadway Light
- Pedestrian Light
- Garbage Receptacle
- Tree Grate
- Street Tree
- Bollard



SCALE 1:200

When printed on 8.5"x11" paper.

Downtown Collector: Typical Configuration



The Transportation Master Plan (TMP) provides direction to reconfigure 100 St and 100 Ave in the downtown core from its current 4 lane configuration to a 3 lane configuration, consistent with the new downtown collector street classifications.

LEGEND

-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard

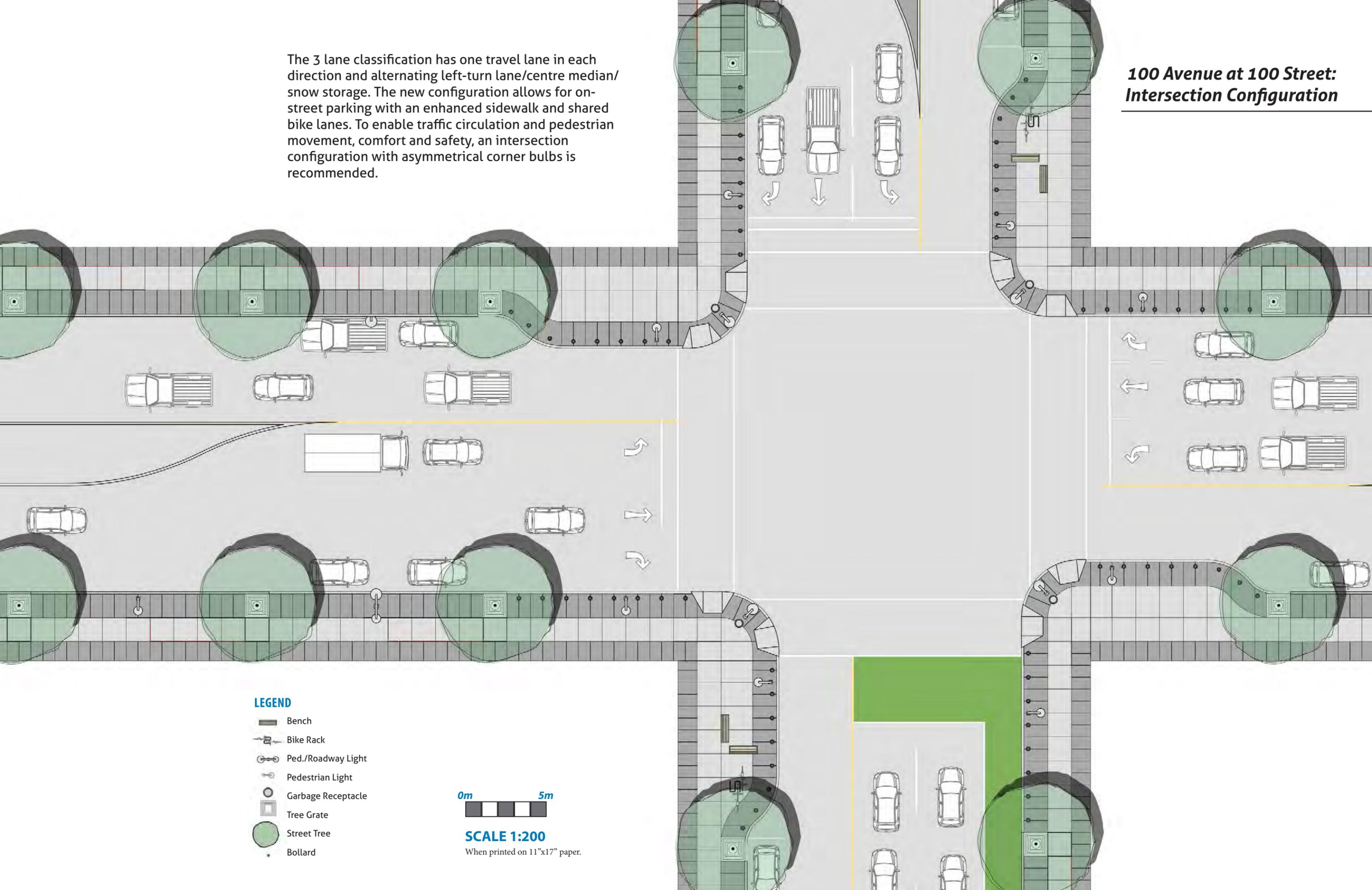
0 5 10m

SCALE 1:500

When printed on 8.5"x11" paper.

The 3 lane classification has one travel lane in each direction and alternating left-turn lane/centre median/snow storage. The new configuration allows for on-street parking with an enhanced sidewalk and shared bike lanes. To enable traffic circulation and pedestrian movement, comfort and safety, an intersection configuration with asymmetrical corner bulbs is recommended.

100 Avenue at 100 Street: Intersection Configuration



LEGEND

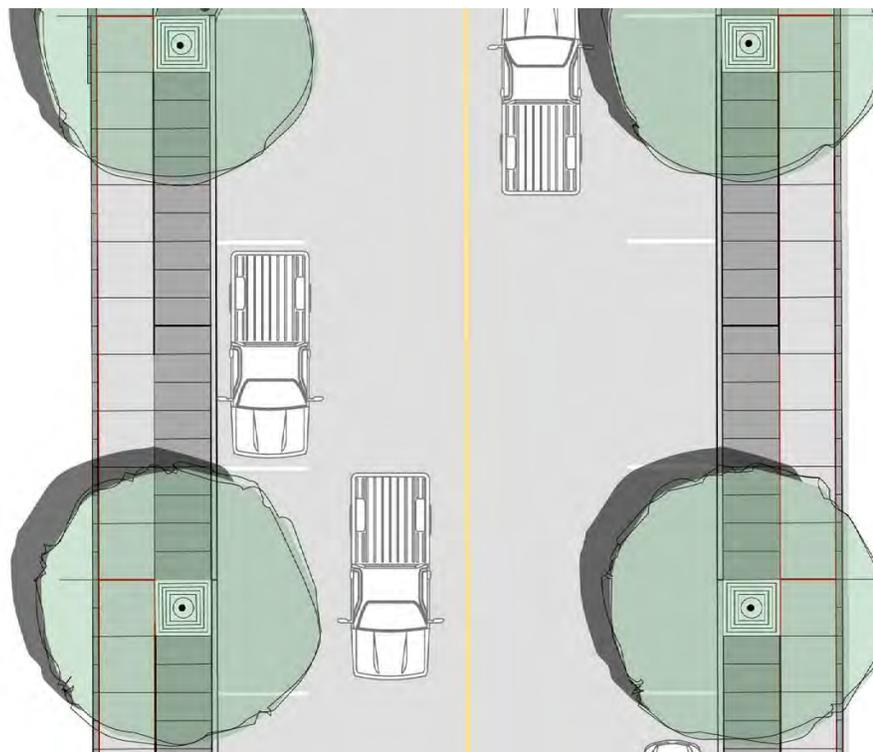
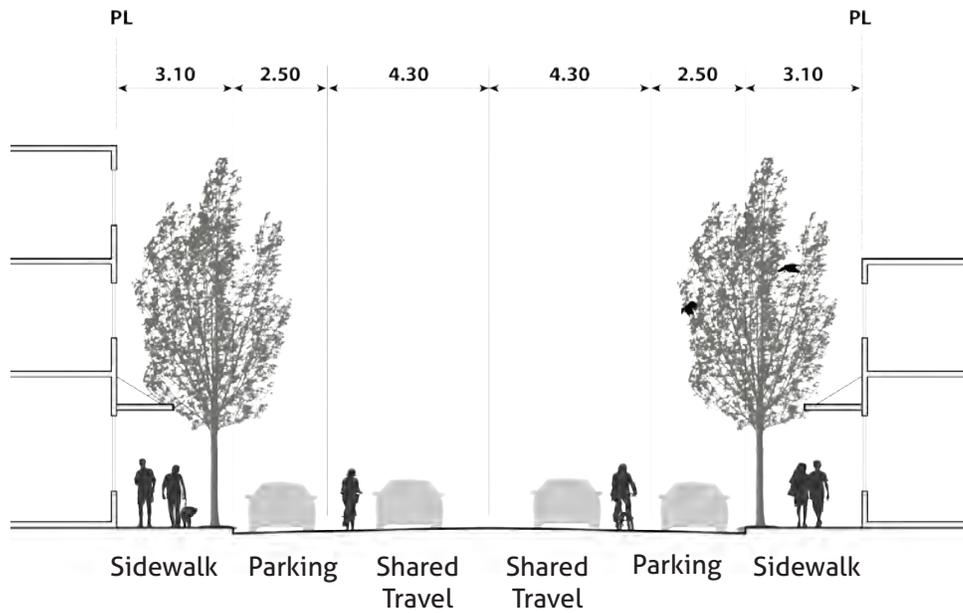
-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard



SCALE 1:200

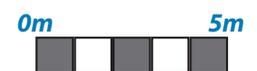
When printed on 11"x17" paper.

Downtown Local: Typical Section



LEGEND

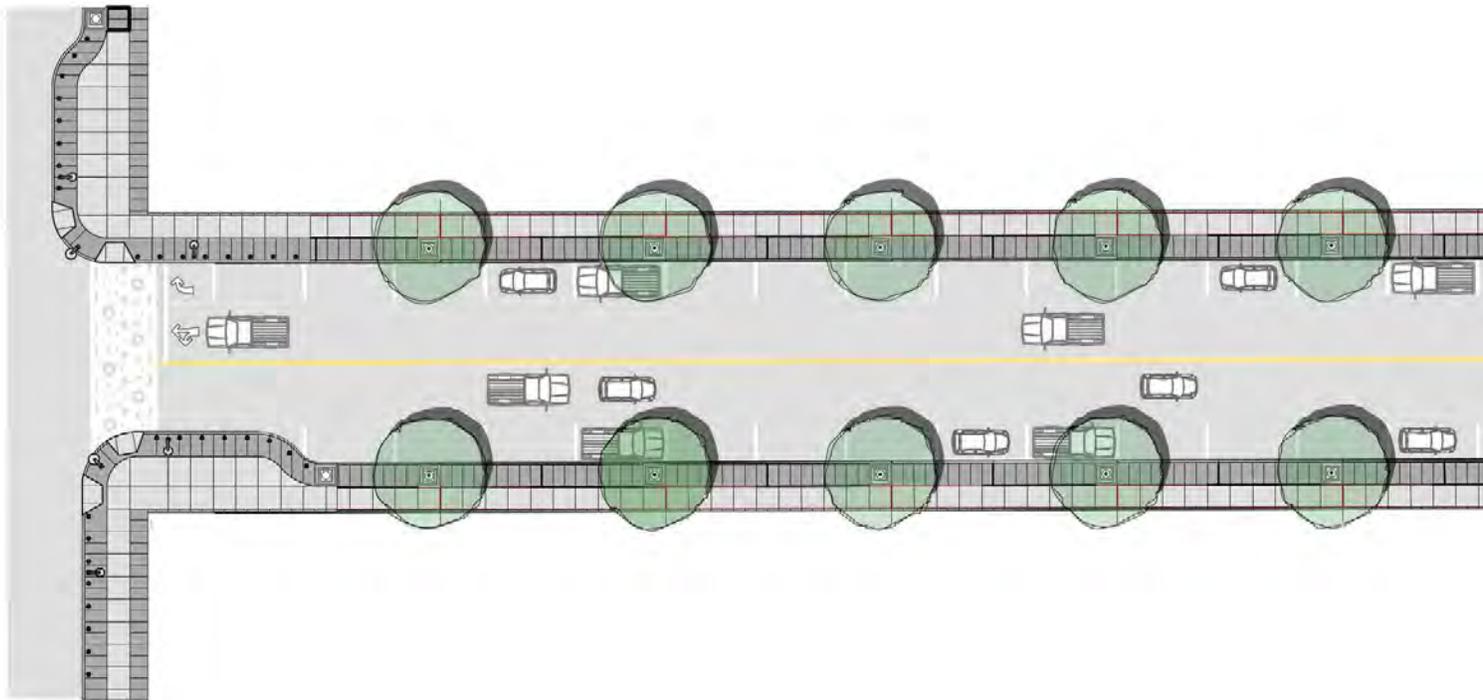
- Bench
- Bike Rack
- Ped./Roadway Light
- Pedestrian Light
- Garbage Receptacle
- Tree Grate
- Street Tree
- Bollard



SCALE 1:200

When printed on 8.5"x11" paper.

Downtown Local: Typical Configuration



The Transportation Master Plan (TMP) includes a classification for the downtown local street that has the following attributes:

- One travel lane in each direction,
- on street parking, and
- capacity for shared lane/on street cycling.

LEGEND

-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard

0 5 10m

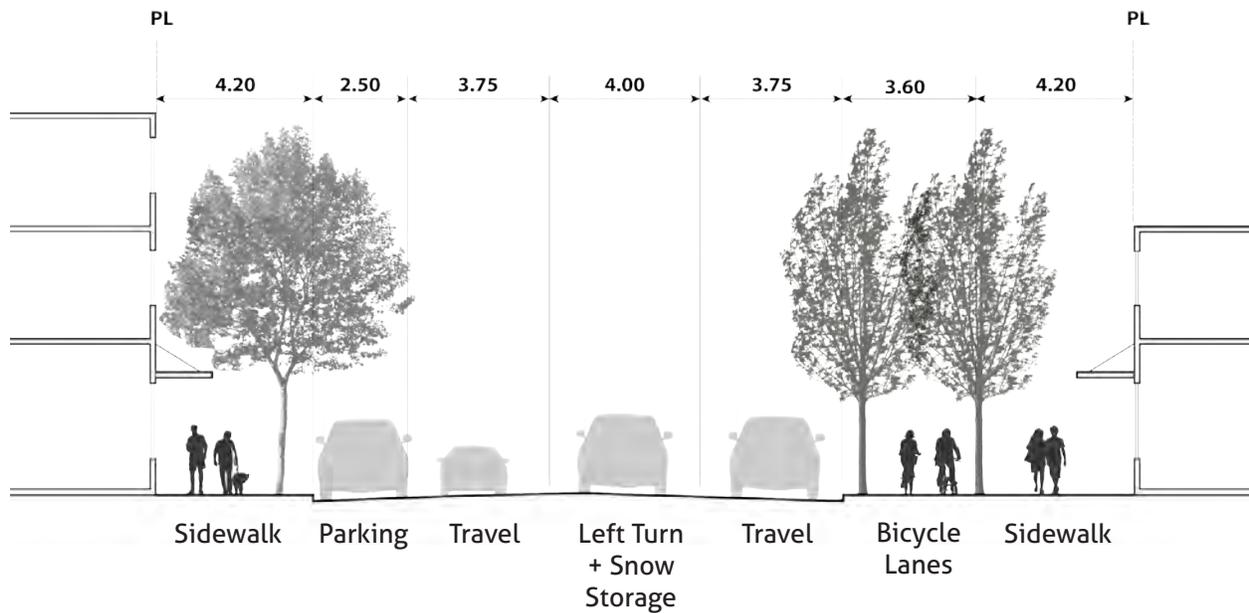
SCALE 1:500

When printed on 8.5"x11" paper.

100 Street Greenway: Typical Section

The 100 St Greenway offers an enhanced amenity space and a strong pedestrian/bike connection between Centennial Park and the heart of the downtown.

The bike lane will be at sidewalk level and separated from the pedestrian realm by an additional row of trees. The hardscape materials of bike route and sidewalk will differ to create a clear visual and functional separation of uses (e.g. asphalt versus scored concrete).



SCALE 1:200

When printed on 8.5"x11" paper.

SIDEWALK OPTIONS

TINTED CONCRETE



POURED IN PLACE CONCRETE

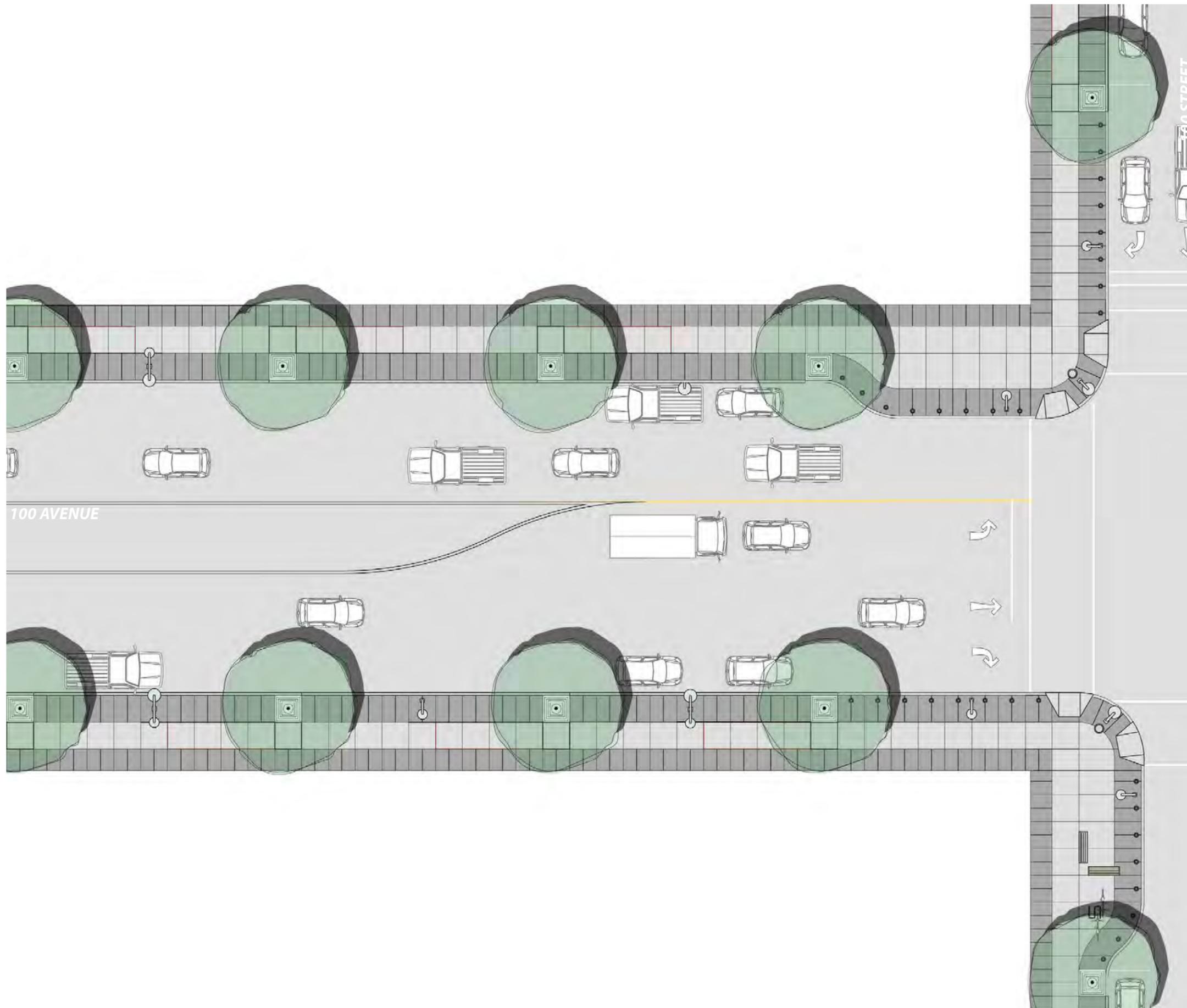


PAVED FURNISHING STRIP



Option 1: Tinted and Poured in Place Concrete

Poured in place concrete sidewalk, with dark/light tints, and broom finish to distinguish storefront display zone. This could be used to suggest allowable store 'spill-out' areas for sandwich boards.



LEGEND

-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard



SCALE 1:200

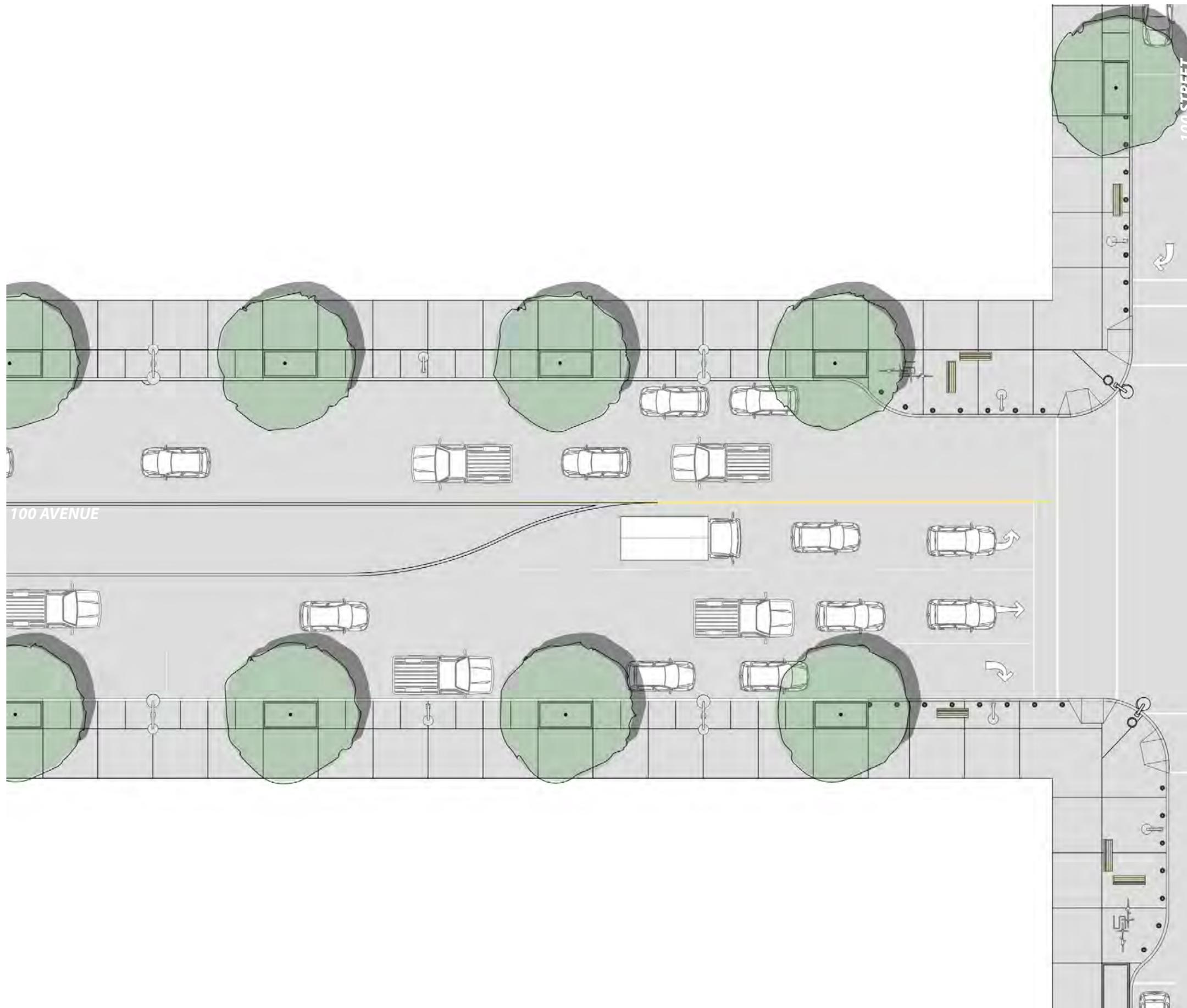
When printed on 11"x17" paper.

Option 2: Poured in Place Concrete Throughout

Continuous poured in place concrete sidewalk, with a broom finish throughout.



Alternate tree grate option: Larger grate Alternate tree grate option: Open tree well with granite fines



LEGEND

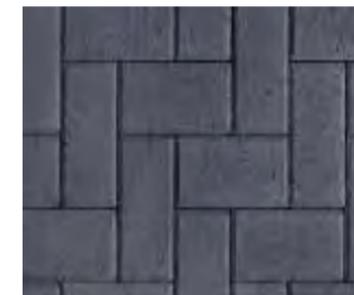
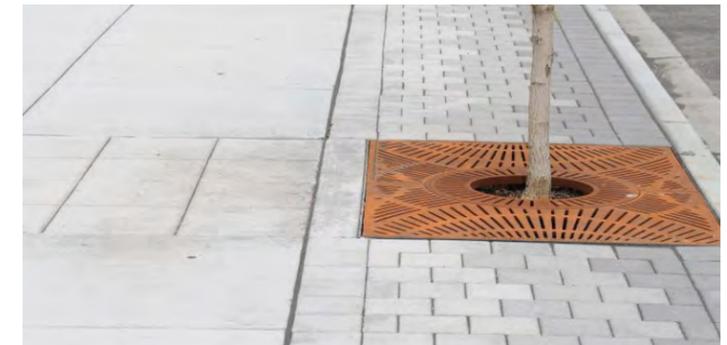
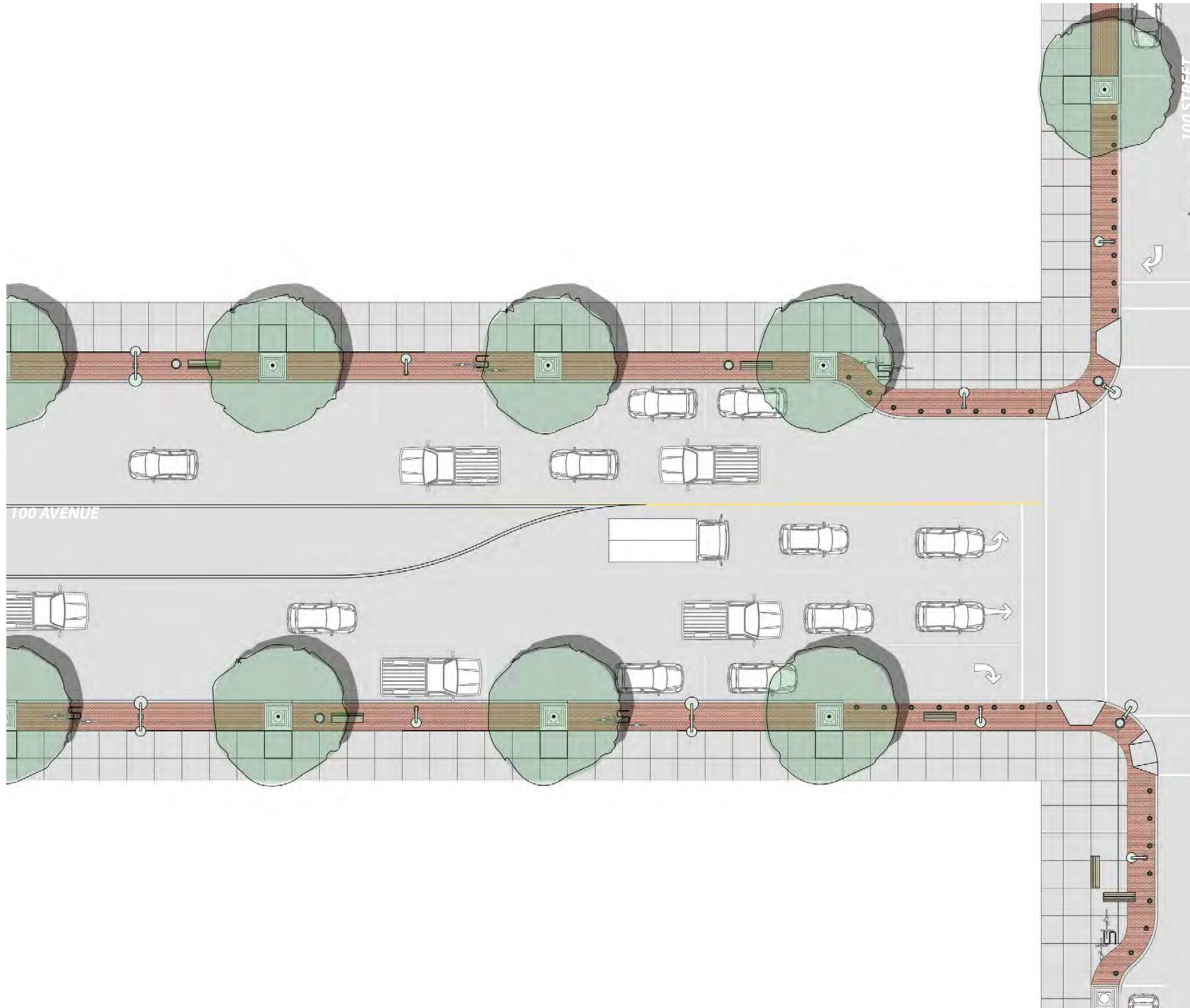
- Bench
- Bike Rack
- Ped./Roadway Light
- Pedestrian Light
- Garbage Receptacle
- Tree Grate
- Street Tree
- Bollard



SCALE 1:200
When printed on 11"x17" paper.

Option 3: Furnishing Strip Paving Detail

Pavers in the furnishing strip distinguish this area from the main pedestrian route. Tree grates are the same depth of the furnishing strip and in this way are integral elements of the design.



Standard concrete paver (8" x 4")



Double Standard concrete paver (8" x 8")

PUBLIC REALM MATERIALS

INTERSECTION OPTIONS



Option 1: Stamped Asphalt

This crosswalk is distinguished by both colour and texture. Stamped asphalt (e.g. DuraTherm) is more durable than paint. It is available in a variety of colours and patterns, and can be custom designed.



Option 2: Poured In Place Concrete

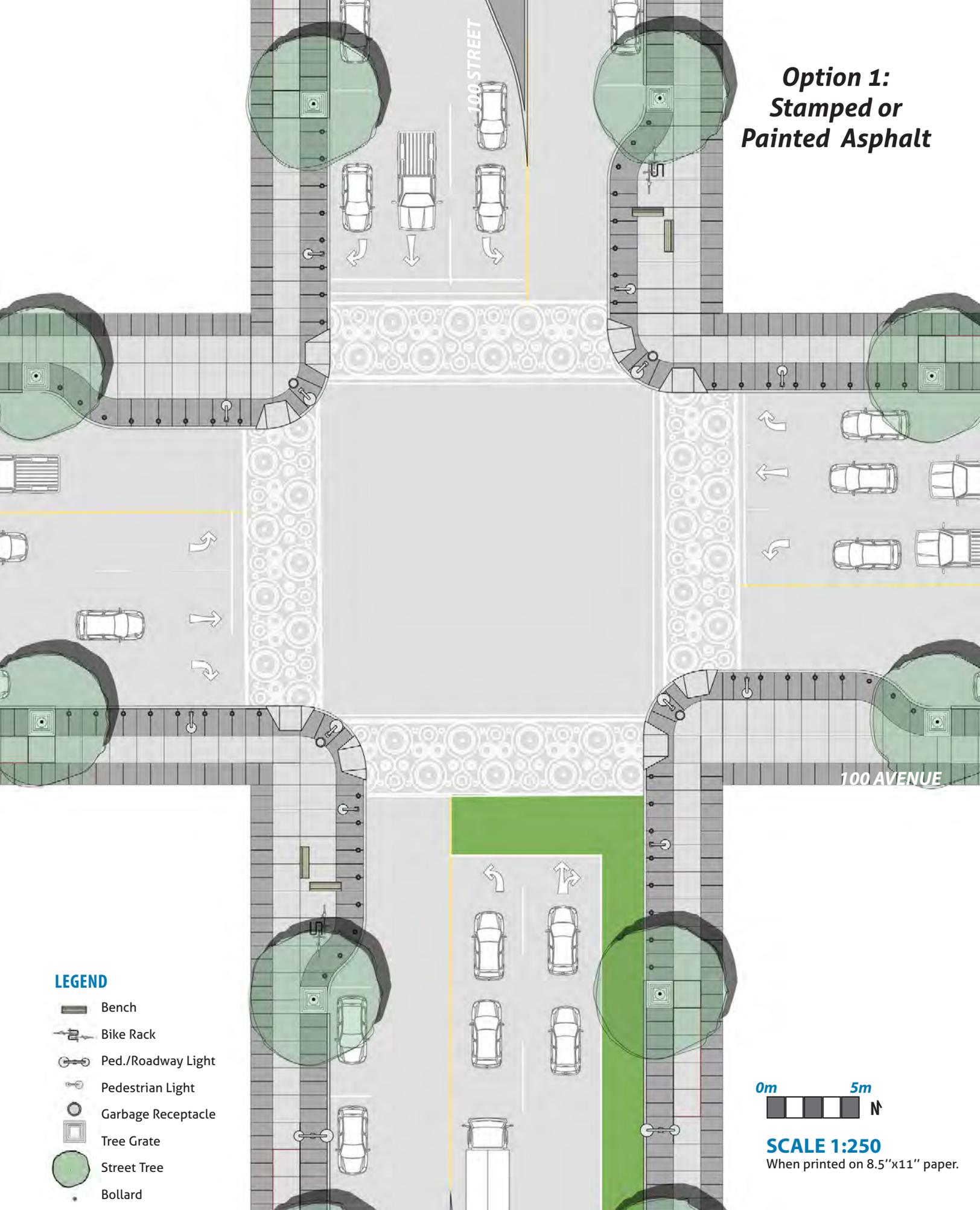
The poured in place concrete sidewalk continues through the crosswalk to distinguish the pedestrian zone from travel lanes .



Option 3: Painted Crosswalks

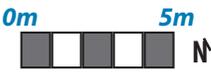
This conventional material can add character and a distinct identity to the downtown through design.

**Option 1:
Stamped or
Painted Asphalt**



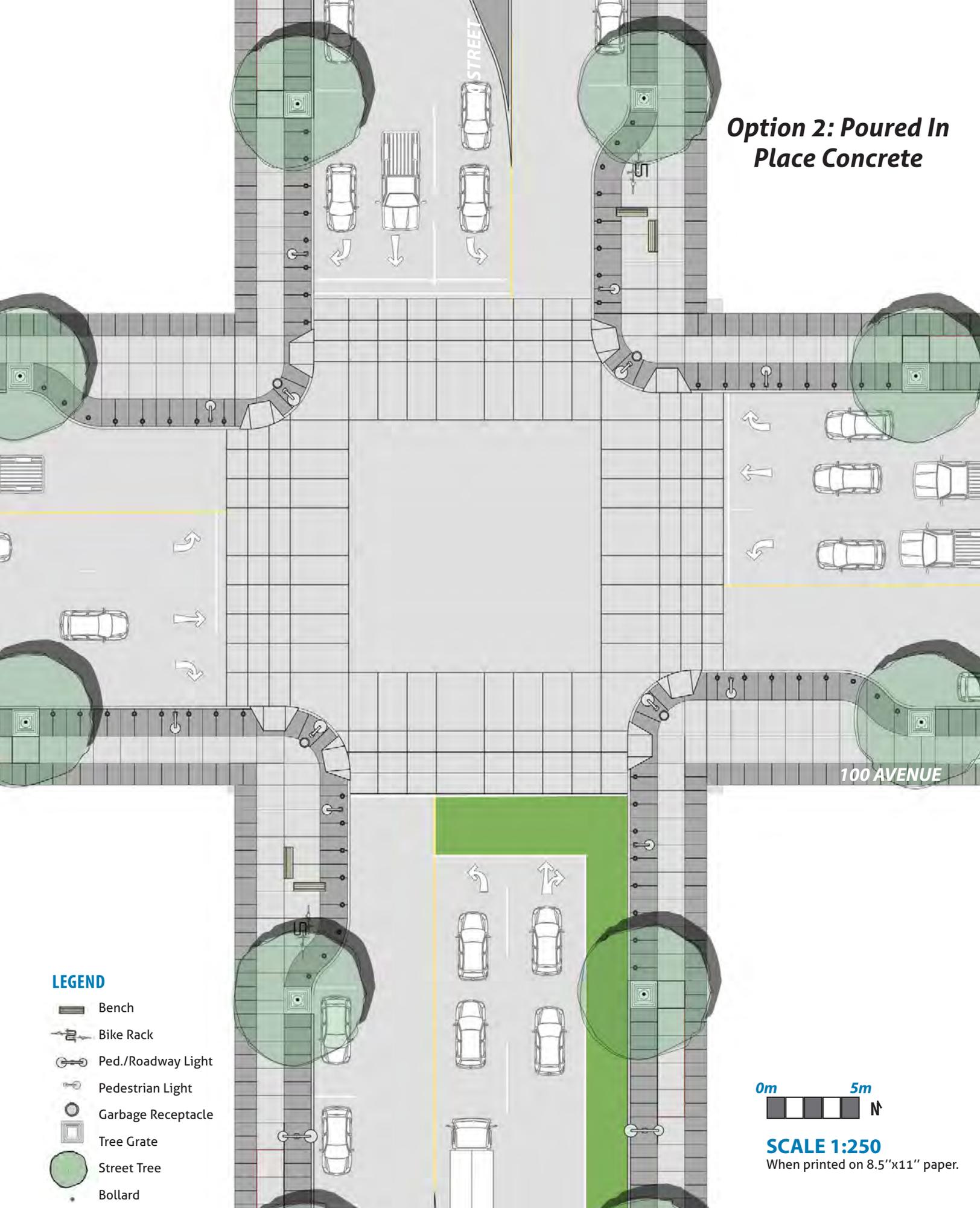
LEGEND

-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard



SCALE 1:250
When printed on 8.5"x11" paper.

Option 2: Poured In Place Concrete



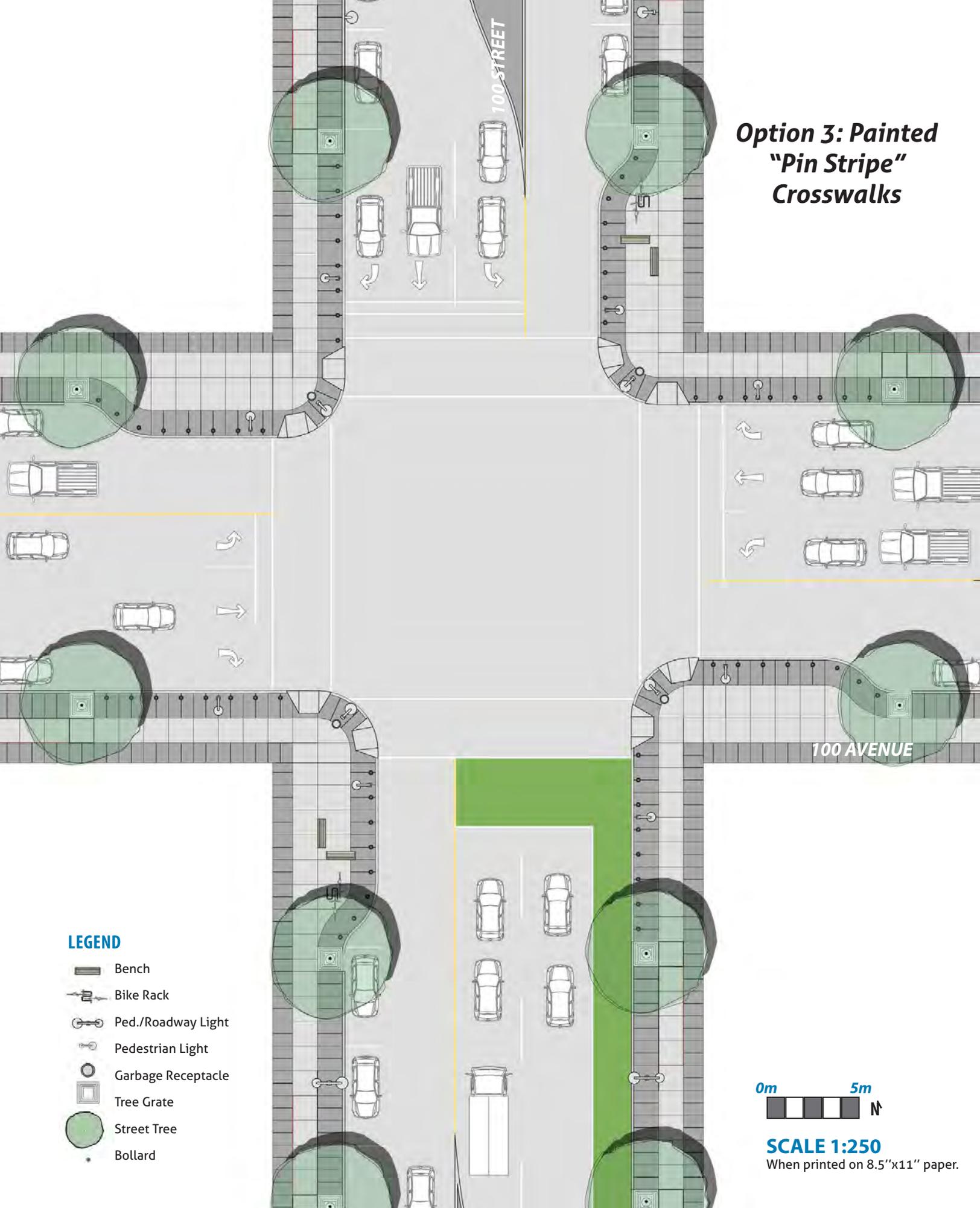
LEGEND

-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard

0m 5m N

SCALE 1:250
When printed on 8.5"x11" paper.

Option 3: Painted "Pin Stripe" Crosswalks



LEGEND

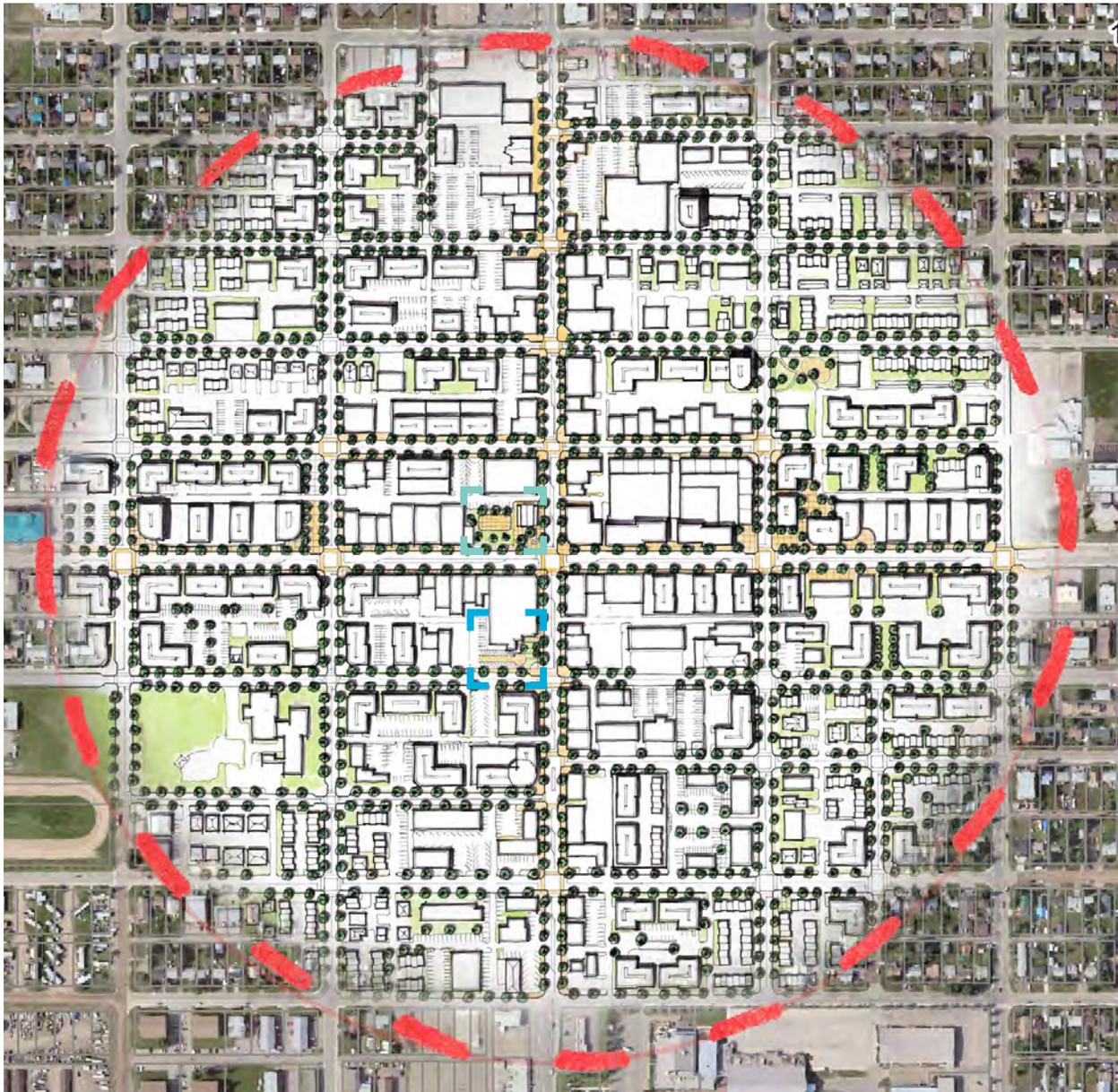
-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard

0m 5m N

SCALE 1:250
When printed on 8.5"x11" paper.

PLAZAS

Another important direction identified in the Action Plan is to develop more quality plazas and outdoor community gathering places in the downtown. Two specific plaza opportunities were identified:



-  Old Fort Market Plaza
-  North Peace Cultural Centre South Plaza and Bus Exchange

OLD FORT MARKET PLAZA

Old Fort Market Plaza

CONCEPT

The market plaza would be located in a prominent location as **a gateway feature and as a unique identifier for the downtown and the City as a whole**. The preferred location for the Market Plaza is the Old Fort Hotel site at 100th and 100th.

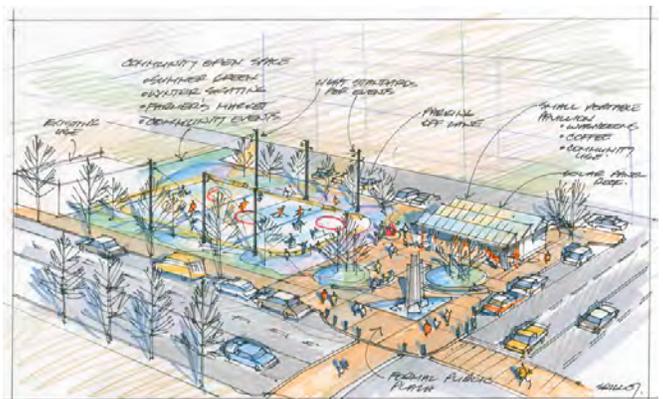
A Market Plaza could act as interim use to **activate the site until a more permanent development is feasible**.

A market plaza could include facilities and programming to support a range of community events and celebrations year-round such as **markets, festivals and concerts**.

- The plaza could incorporate a large but simple structure for markets and other events in the spring, summer, and fall.
- In the winter a sheet of ice could be thrown down for skating and hockey, which could include a downtown venue for the celebrated High On Ice festival.
- A portable/temporary structure with a small cafe/restaurant, space for portable food trucks, public washrooms, or a community use such as a day care, could also be incorporated, along with surface parking off the lane.
- Incorporating active uses such as housing or a restaurant and/or pub within or adjacent to the plaza would enhance and help activate the space.
- A corner plaza incorporating landscaping, seating and possibly a 'dynamic' or functional public art piece like a fountain or solar flower could be built as a permanent feature and incorporated with future development when it occurs.



Short term summer use



Short term winter use

OLD FORT MARKET PLAZA

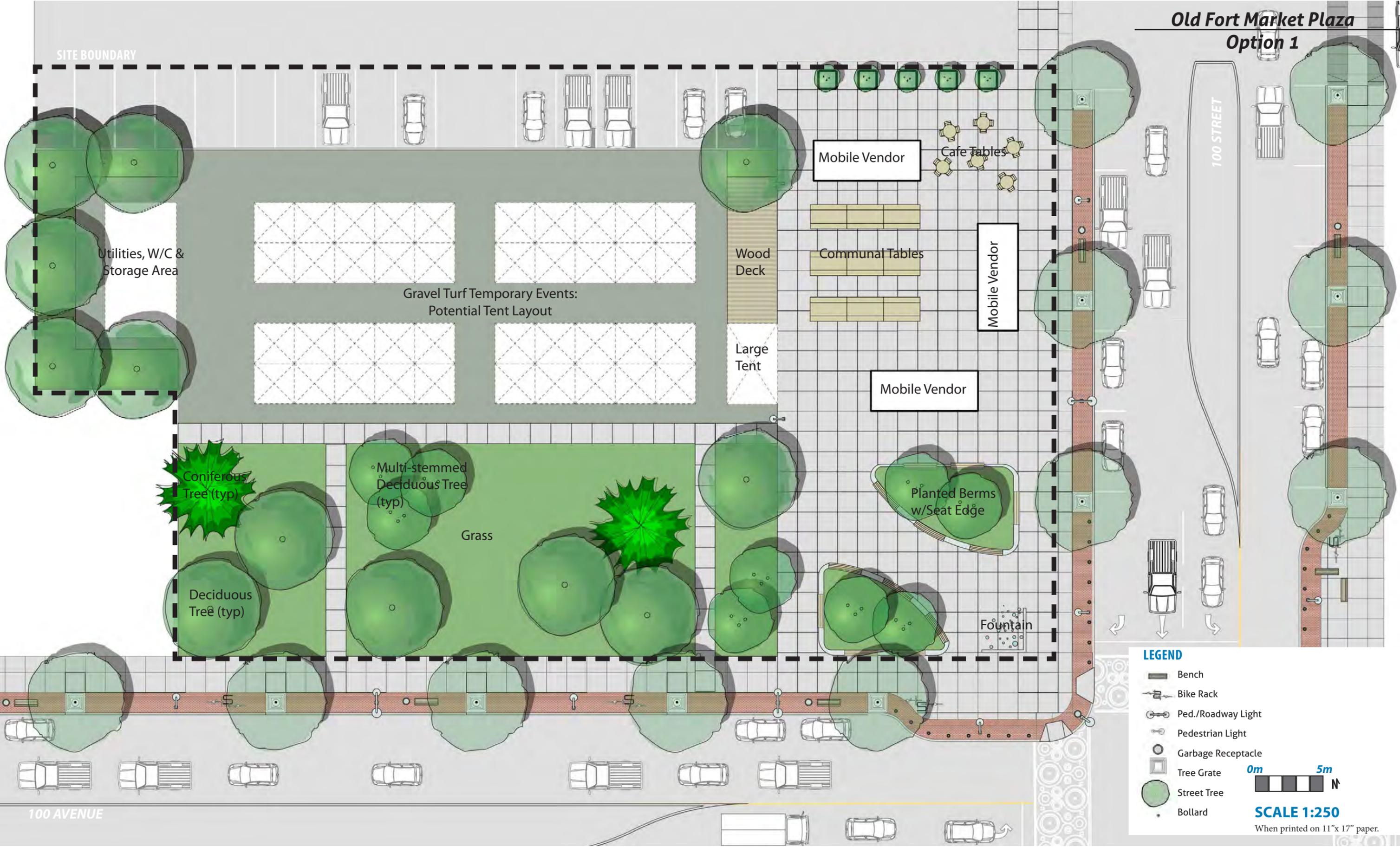
Old Fort Market Plaza

RECOMMENDED OPTIONS

Two options for the market plaza have been developed. Both incorporate a permanent corner plaza solution. Option 1 presents a larger festival barn structure and more programmed public park space with play area and perennial garden. Option 2 shows a more temporary vending kiosk and street vendor configuration and a simplified public park space.

A corner plaza is desired in this location and could be built in advance of future development. It would incorporate landscaping, an at grade water fountain and sitting areas. A large surface made of “gravel turf” (refer to appendix for details) could accommodate both a farmer’s market during fair weather months and an ice rink in the winter. A barn structure for festivals, concerts and markets will anchor the community and provide a “built” edge to the corner plaza. Alternatively, mobile vendors or a portable kiosk structure with a small cafe/restaurant could activate the space north of the corner plaza. Large deciduous trees, like ashes and maples, cast shade and provide a cool green space during hot summers.

**Old Fort Market Plaza
Option 1**



LEGEND

- Bench
- Bike Rack
- Ped./Roadway Light
- Pedestrian Light
- Garbage Receptacle
- Tree Grate
- Street Tree
- Bollard



SCALE 1:250
When printed on 11" x 17" paper.

Old Fort Market Plaza
Option 2



LEGEND

- Bench
- Bike Rack
- Ped./Roadway Light
- Pedestrian Light
- Garbage Receptacle
- Tree Grate
- Street Tree
- Bollard

0m 5m N

SCALE 1:250
When printed on 11"x17" paper.

OLD FORT MARKET PLAZA

Precedent Images



Festival Barn and Market



Kiosks and Mobile Vendors



Fountain, Seating edge, Gravel Turf with Wood Deck

NPCC SOUTH PLAZA AND BUS EXCHANGE

North Peace Cultural Centre South Plaza and Bus Exchange

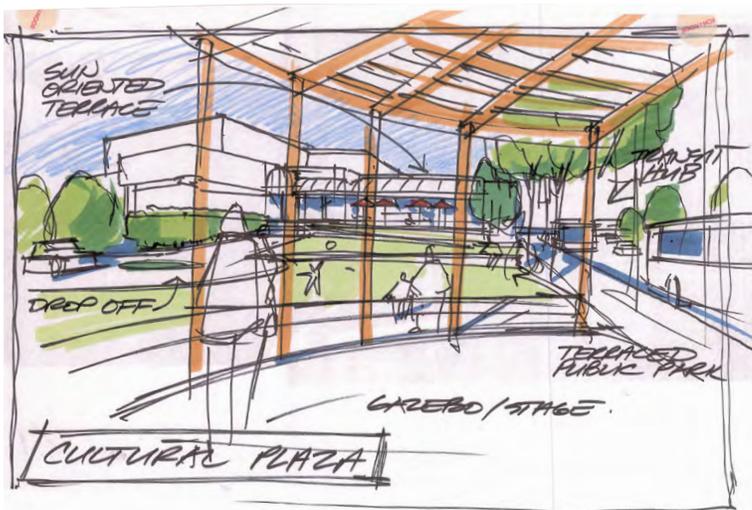
The North Peace Cultural Centre is a wonderful community asset located right in the heart of downtown. However, its blank walls and lack of outdoor gathering spaces detract from its full potential in this key location. Practical and inexpensive retrofits could be undertaken to improve the Centre.

A terraced plaza facing south (and away from 100th St and 100th Ave) that utilizes the unique sloping geography, would create an attractive public gathering place in the heart of downtown. An enhanced entryway and plaza would generate activity and “eyes” on the adjacent downtown bus exchange. The new plaza is designed to cater for increased pedestrian use at the bus exchange and other NPCC facilities.

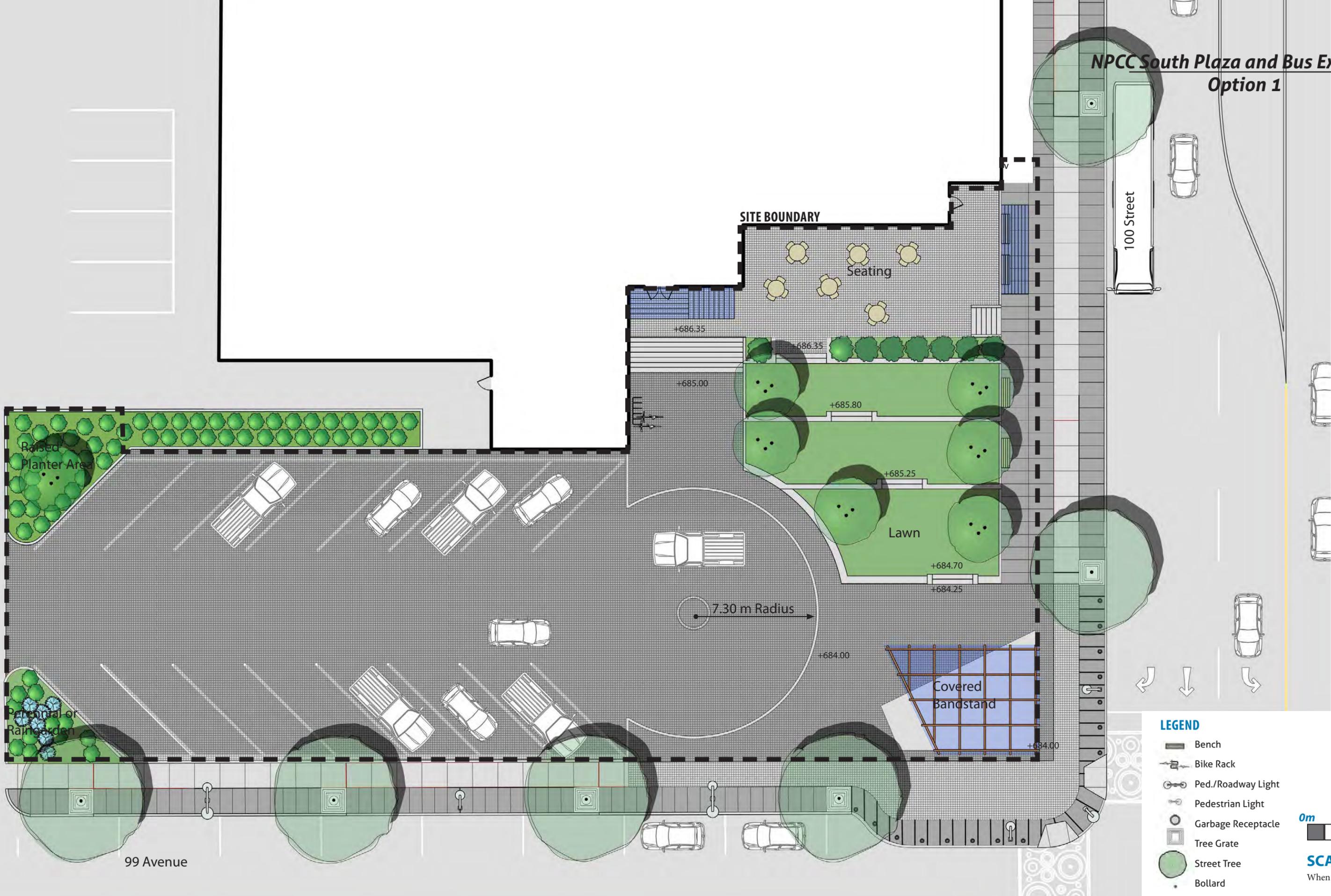
The two design options presented in the following pages differ mainly in the choice of paving material. A special concrete paver throughout the plaza is foreseen in Option 1; scored concrete and concrete pavers (for the raised seating area only) in Option 2. Both options will reduce parking by approximately 8 to 10 spots.



The retaining walls of the terraces double as opportunities for seating. They reach a maximum height of approximately 45cm. Cast in place concrete walls with attached wooden benches offer comfortable areas for seating along the walls. Smaller multi-stemmed tree species and shrubs offer shade and seasonal interest at a human scale. The proposed design makes full use of the sloping site and offers a space for live music and other performances.



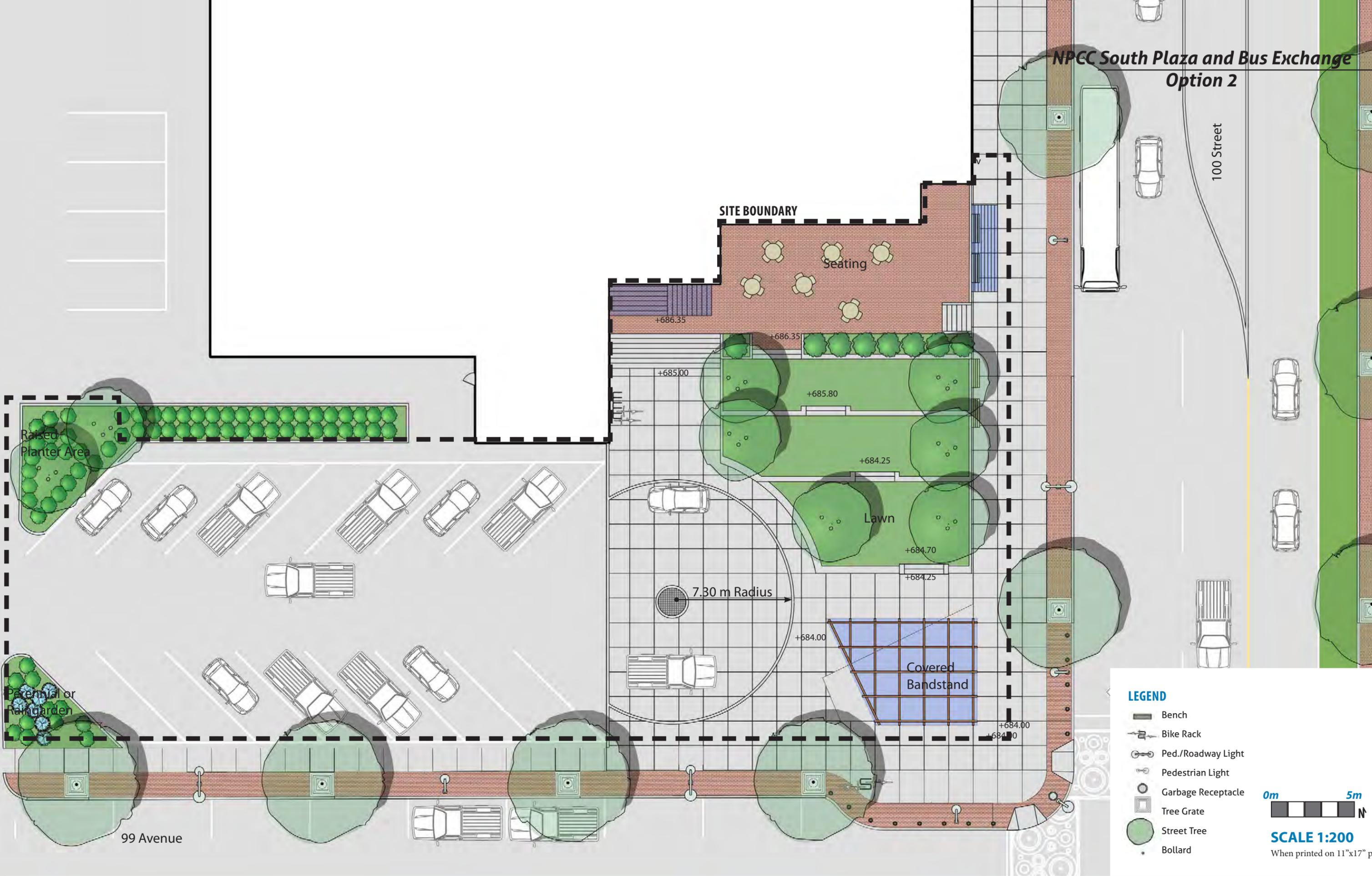
**NPCC South Plaza and Bus Exchange
Option 1**



- LEGEND**
- Bench
 - Bike Rack
 - Ped./Roadway Light
 - Pedestrian Light
 - Garbage Receptacle
 - Tree Grate
 - Street Tree
 - Bollard

0m 5m N
SCALE 1:200
When printed on 11"x17" paper

NPEC South Plaza and Bus Exchange Option 2



LEGEND

-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard

0m 5m
N
SCALE 1:200
When printed on 11"x17" paper

***NPCC South Plaza and Bus Exchange
Aerial View Perspective Rendering
Option 1***



NPCC SOUTH PLAZA AND BUS EXCHANGE

Precedent Images



Covered Performance Space



Grassed terraces, attached benches



Multi-stem trees for people scale

GUIDELINES AND SPECIFICATIONS

a. Street Tree Recommendations

Selection

Tree selection and detailed design is an iterative process. Placement should generally be driven by a “right tree in the right place” approach.

Species selection is also guided by site constraints, design intent and anticipated benefits. Consideration must be given to location, overhead restrictions, visibility and other limiting factors. The use of multiple species within the downtown is recommended for resilience and should be supported by the procurement of quality stock. Follow BCLNTA and BCSLA Standards.

Tree spacing on both 100 Avenue and 100 Street is foreseen to be 15m to allow for positioning of street lights while taking into consideration visibility of building frontages and provision of a lush canopy. A minimum caliper of 7cm is recommended.

High clear stems are indicated along main roads and bus lanes. In front of full glass storefronts of tall modern buildings heat tolerant columnar cultivars can be the preferred choice. Larger trees in corner bulbs can signify the ‘entry’ to a particular district or commercial zone. Multi-stem trees are good for people scale, e.g. between parking lot and sidewalk or within a plaza.

In residential areas select smaller trees with seasonal variation with residents’ input.

RECOMMENDED TREES

along 100 Avenue

Patmore Green Ash
Fraxinus pennsylvanica
‘Patmore’



along 100 Street

Common Hackberry
Celtis Occidentalis
‘Prairie Pride’



for the Old Fort Hotel Site

Fallgold Black Ash
Fraxinus nigra *‘Fallgold’*



Acer saccharinum
‘Silver Cloud’



Saskatoon Berry
Amelanchier
alnifolia



GUIDELINES AND SPECIFICATIONS

Longevity of Urban Trees

Planting

Trees begin to decline in health due to soil compaction and/or limited availability of suitable soil, lack of maintenance and water. Apart from choosing quality stock and selecting suitable species, trees need to be planted in a manner that ensures the best tree health in an urban context. They should be supplied with a minimum of 10 cubic metres of structural soil within the furnishing strip and sidewalk. A linear root barrier on either side of the trench is further recommended. Ideally automatic drip irrigation should be included where possible. Metal tree guards help protect the tree from damage and further enhance the public realm and streetscape (refer to detail in appendix A).

Maintenance

More investment up front and in regular tree maintenance such as pruning to keep shape and remove damaged limbs, and irrigation, will yield longer-term benefits. As trees mature and expand their canopies, they provide more oxygen, sidewalk shade and help mitigate the urban heat island effect. Younger trees do not provide these benefits; only when trees reach a certain size. Many cities are forced to replace trees just before they mature, thus they don't reap these considerable advantages. By extending tree longevity through appropriate tree well design, and planning for maintenance and irrigation, Fort St. John stands to improve the livability and appeal of the downtown core for the long term.

Recommended Trees for the Old Fort Hotel Site

Norway Spruce
Picea Abies



for the NPCC Plaza

Amur Maple multi-stem
Acer tataricum
ssp. ginnala



for Local Streets

Schubert Chokecherry-Bailey
Prunus virginiana
'Schubert'



Snowbird Hawthorn
Crataegus x mordenensis
'Snowbird'



American Mountain Ash
Sorbus americana



GUIDELINES AND SPECIFICATIONS

b. Rain Gardens

Where physically and aesthetically possible the installation of planted raingardens in the downtown is proposed as a tool to intercept surface runoff, help improve water quality and further enhance the public realm.

When considering tree and shrub planting, ensure that there is enough room for the mature plants, and that sight-lines for pedestrians and vehicles will not be obstructed. Trees in rain gardens should be tolerant of moisture variation.

General maintenance

- Remove leaves each fall, inspect overflow, hydraulic and structural facilities annually;
- Remove trash and debris periodically;
- Replanting may be necessary over time;
- Apply mulch each spring (2-3 inches of hardwood mulch);
- Surface inlet sump should be inspected annually and cleaned as required;
- Once established, plants should only be watered in long periods of drought.



c. Hardscape Materials

There are a variety of paving materials that can be used to enhance and define a streetscape. The palette of materials for the Public Realm and Streetscape Master Plan was chosen with a perspective to aesthetic quality, durability and ease of maintenance. All sidewalk areas are to be made of scored concrete.

Score Pattern

The cast in place concrete sidewalks will be scored in a 1.5 m rectangular/square pattern. Scores are to be cut using either a tool-joint with a deep control joint and no visible collar or a saw cut. This is to ensure a smooth, universally accessible surface.

Maintenance

Most of the specified materials don't require excessive amounts of maintenance other than power washing and, over the years, possibly replacement of pavers and repair of joint materials in small amounts.

d. Site Furnishings

Site furnishings should provide a unique community identity with capital, operational and life-cycle costs in mind. From an aesthetic point of view, the goal is to achieve a classic contemporary look that will not seem outdated in a few years time

Maintenance

Street furnishings and hardscape materials should be of high quality and durable materials to reflect a sense of permanence and to minimize long-term maintenance in the face of snow removal, salt and sand spray.

Installation of certain furnishings, in particular, garbage receptacles and bollards should be placed on raised concrete pads, e.g. 3" above walking surface, to protect finishes as much as possible from damage due to snow clearing, salt and sand spray.

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS

Benches

On 100 Avenue benches are to be typically spaced 50m apart, centered between trees. On 100 Street every 45m.

Recommended Model - Option 1



VICTOR STANLEY

Create a timeless moment.

Model	RBW-28
Supplier	Habitat Systems Incorporated
Manufacturer	Victor Stanley
Location	Dunkirk, MD USA
Materials	Recycled solid steel bar, ipe wood slats, surface mount
Dimensions	.61, 1.2 or 1.8 m length
Colour	Standard black or grey, 200+ RAL colours available on request
Estimated Cost	\$
Options	Intermediate armrests (bolt-on) for 1.2 or 1.8 m length
Notes	All fabricated metal components are steel shot blasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings



VICTOR STANLEY

Create a timeless moment.



VICTOR STANLEY

Create a timeless moment.

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS

Benches

On 100 Avenue benches are to be typically spaced 50m apart, centered trees. On 100 Street every 45m.

Recommended Model - Option 2



Model	CM-324
Supplier	Habitat Systems Inc.
Manufacturer	Victor Stanley
Location	Dunkirk, Maryland, USA
Materials	Ductile Iron Casting, Recycled Plastic
Dimensions	1.2, 1.8, 2.4, 3.7 or 4.9 m lengths
Colour	Standard black or grey. 200+ RAL colour available.
Estimated Cost	\$
Options	Maple, cherry, walnut or gray recycled plastic slats, intermediate armrests (bolt-on), and skateboard guards
Notes	All fabricated metal components are steel shot blasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS Litter Bins

Litter bins will be placed at key locations throughout the site. Refer to plans for proposed locations.

Recommended Model - Option 1



Model	SD-42 (side-door opening)
Supplier	Habitat Systems Inc.
Manufacturer	Victor Stanley
Location	Dunkirk, Maryland, USA
Materials	Recycled solid steel bar, bottom recessed pedestal
Dimensions	Bars 10 x 25 mm, top band 64mm, top ring 16mm, capacity 136L (36 gal)
Colour	Standard black or grey, 200+ RAL colours available on request
Estimated Cost	\$
Options	Keyed locking mechanism. Dome lid (ashtrays available). Convex lid (self-close door available). Rain bonnet lid (ashtrays available). Recycle lids. Galvanized steel liner (powder coat available). Half-Moon liners. Custom decals and plaques.
Notes	All fabricated metal components are steel shot blasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS Litter Bins

Litter bins will be placed at key locations throughout the site. Refer to plans for proposed locations.

Recommended Model - Option 2



Model	MLWR200S-32
Supplier	Maglin
Manufacturer	Maglin
Location	Ontario
Materials	Heavy duty steel flat bar, heavy weight hinges, commercial grade black plastic liner, self-closing slam latch, and spun metal lid are provided
Dimensions	Height: 96.5cm (38.00"), Diameter: 73.7cm (29.00"), capacity 121 L (32 gal)
Colour	Range of powder coat colours available. Recommend fine textured black, silver or gunmetal
Estimated Cost	\$
Options	Dome lid, paper slot, bottles/cans lids, ash receptacle
Notes	All steel components are protected with E-Coat Rust Proofing. The Maglin Powder coat System provides a durable finish on all metal surfaces

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS

Bike Racks

Bike racks will be placed at key locations throughout the site. Where possible, racks will be located close to a pedestrian light. Refer to plans for proposed locations.

Recommended Model for larger capacities



Model	Cora W2704-W7510
Supplier	Cora Canada
Manufacturer	Cora Canada
Location	Vancouver, BC
Materials	Heavy duty quality steel
Dimensions	Height 34 in, depth 34 in (other dimensions variable depending on capacity)
Capacity	3, 4, 6, 8, or 10 bikes
Colour	Galvanized finish or stainless steel (recommend galvanized)
Estimated Cost	e.g. 8 bikes galvanized finish \$ each
Options	Various powder coat colours, galvanized and stainless steel finishes available
Options	Galvanized finish uses a hot dipped process that is done after fabrication and then hand polished to ensure a smooth finish

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS

Bike Racks

Bike racks will be placed at key locations throughout the site. Where possible, racks will be located close to pedestrian light. Refer to plans for proposed locations.

Recommended Model for Smaller Capacities - Option
Powder coated



Model	BRB-103
Supplier	Habitat Systems Inc.
Manufacturer	Victor Stanley
Location	Dunkirk, Maryland, USA
Materials	76 mm (3 in) OD tubular steel post flanked by a 33mm (1 5/16 in) tubular steel ring
Dimensions	
Capacity	2 bikes
Colour	Standard black or grey, 200+ RAL colours available on request
Estimated Cost	Powder coat \$ each Galvanized \$ each
Options	Powder coat over galvanized finish. Surface mount. In-ground mount
Notes	All fabricated metal components are steel shot blasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS

Bike Racks

Bike racks will be placed at key locations throughout the site. Where possible, racks will be located close to pedestrian light. Refer to plans for proposed locations.

Recommended Model for Smaller Capacities - Option
Stainless Steel or Galvanized



Model	BRB-161
Supplier	Habitat Systems Inc.
Manufacturer	Victor Stanley
Location	Dunkirk, Maryland, USA
Materials	Single wide loop bike rack constructed of 60 mm (2.375 in) OD tubular steel pipe and 6 x 51 mm (.25 x 2 in) cross bar
Dimensions	
Capacity	2 bikes
Colour	Standard black or grey, 200+ RAL colours available on request
Estimated Cost	Powder coat \$ each Galvanized \$ each
Options	Powder coat over galvanized finish. Surface mount. In-ground mount
Notes	All fabricated metal components are steel shot blasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS

Bollards

Bollards provide a sense of safety to pedestrians and offer a visual cue for the bulb outs that can otherwise be obscured by snow.

Recommended Model:



Model	MTB650-B4
Supplier	Maglin
Manufacturer	Maglin
Location	Ontario
Materials	Constructed of 16.8cm (6-5/8") diameter H.S. steel tube. Decorative top and base are cast aluminum.
Dimensions	Height: 84.0cm (33.00"), Diameter: 16.8cm (6.625"), Wall Thickness: 0.6cm (0.25")
Colour	Range of powder coat colours available. Recommend fine textured black, silver or gunmetal
Estimated Cost	\$
Options	Forged steel eye bolts
Notes	The MTB650 Series Bollards are available in four different removable and fixed installation types

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS

Bollards

Bollards with light provide enhanced guidance and help illuminate the public space in winter darkness.

Recommended Model:



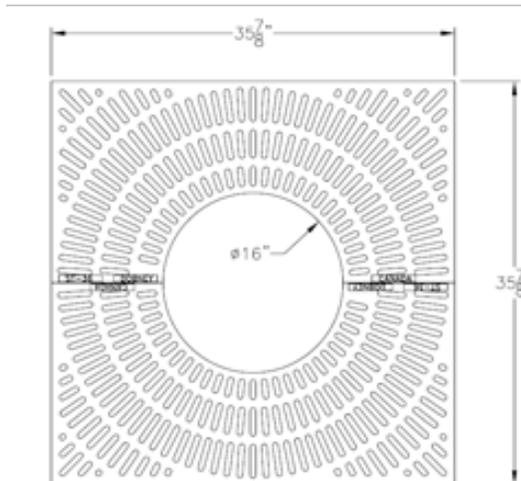
Model	Lumenarea mobilia 3243
Supplier	
Manufacturer	Lumenpulse Lighting Inc.
Location	Montreal, QC
Materials	Steel tube
Dimensions	Anchoring: see base A Height: 36 3/4 in (934 mm) Width: Ø8 in (Ø204 mm) Weight: 22 lb (10 kg)
Colour	Textured black or silver
Estimated Cost	\$
Options	Custom colours on request
Notes	LED max. wattage 28W Anti-Vandal casing

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS Tree Grate

To accentuate the importance of both of these important commercial/pedestrian spines iron tree grates are suggested for 100 Street and 100 Avenue for street trees that are within the furnishing strip and are surrounded by hard surface. Trees within a planted boulevard in residential areas will not require a tree grate.

Recommended Model:



Model	ST-48 or SP-48
Supplier	Dobney Foundry
Manufacturer	Dobney Foundry LTD.
Location	Surrey, BC
Materials	Ductile iron with asphalt coating
Dimensions	48" square
Colour	
Estimated Cost	48" square: \$572 + \$145 for frame
Custom Options/Cost	Custom pattern available, one time fee for making the mold \$5000 to \$15000 depending on complexity of pattern. Cost of grate variable depending on pattern. Customized patterns take 12 to 16 weeks.
Notes	ADA compliant

GUIDELINES AND SPECIFICATIONS

d. SITE FURNISHINGS Tree Guard

Tree guards protect trees during snow clearing and adding character to the public realm.

Recommended Model:



Model	S-6
Supplier	Habitat Systems Inc.
Manufacturer	Victor Stanley
Location	Dunkirk, Maryland, USA
Materials	Recycled solid steel bar
Dimensions	Recommend min 0.50 m dia, 1.2m height
Colour	Standard black or grey, 200+ RAL colours available on request
Estimated Cost	Cost of the tree guard is based on diameter and height
Options	Hole in-ground support. Slot in-ground supports
Notes	All fabricated metal components are steel shot blasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings

GUIDELINES AND SPECIFICATIONS

e. LIGHTING Light Fixtures

100 Street /100 Avenue

Suggested spacing is 15m per side with pedestrian light fixtures on every pole. Combined road/pedestrian lights are staggered across the street and thus 30m apart (refer to typical sidewalk configuration).

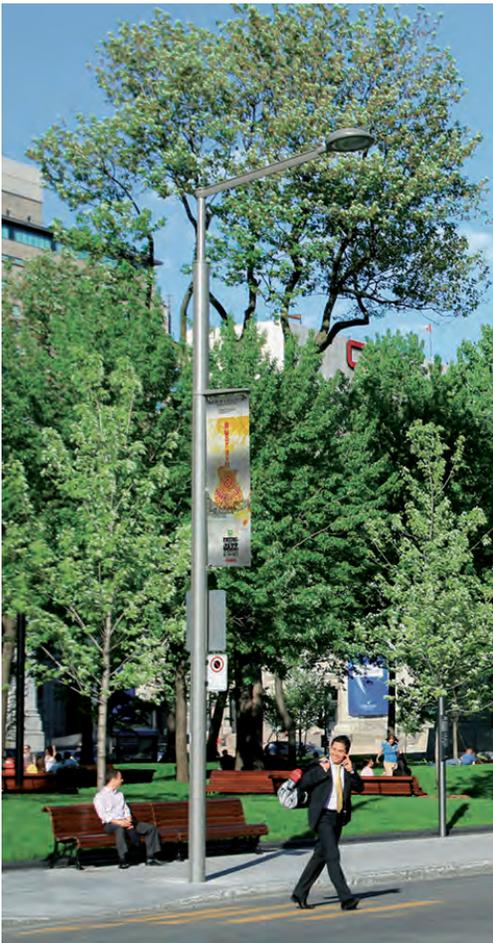
This spacing is dictated to achieve appropriate lighting levels for the area, however, exact spacing is to be verified by a qualified electrical engineer at the time of development. If necessary, pedestrian lights should be installed on traffic signal poles to ensure that the intersections are adequately lit. Pedestrian light spacing along the mid-block pedestrian walkways is to be determined at the time of development by a qualified electrical engineer.

Light poles should be able to accommodate banners, hanging baskets, irrigation as well as electrical outlets for events in required locations. Trees on 100 Ave and 100 St are to be supplied with a junction box and conduit to allow for seasonal lighting.

GUIDELINES AND SPECIFICATIONS

e. LIGHTING Light Fixtures

Recommended Model - Option 1



Model	Technilum Marsanne
Supplier	CDm2
Manufacturer	Technilum
Location	Beziers, France
Materials	Aluminum made entirely weld-free
Dimensions	Pole heights variable 4m-12m Banner arm: up to 2m
Colour	Polyester powder coating RAL colors or special finish
Estimated Cost	\$8500
Custom Options/Cost	Positioning of luminaires flexible, and option to add attachments for banners, hanging flower baskets and seasonal lighting
	LED and dark sky compliant
Other Notes	Variety of pole profiles available

GUIDELINES AND SPECIFICATIONS

e. LIGHTING Light Fixtures

Recommended Model Option 2



Model	Lumec Large Capella Luminaire for Roadway/Pedestrian use
Supplier	CDm2
Manufacturer	Philips Lumec
Location	Boisbriand, Québec
Materials	Aluminum, Lumital Powder Coating
Dimensions	Pole heights variable Banner arm variable
Colour	BKTX , textured black or BRTX, textured medium grey
Estimated Cost	\$9000 (for roadway/pedestrian combination)
Custom Options	Different pole and arm options (curved/straight). Positioning of luminaires and option to add attachments for banners, hanging flower baskets and seasonal lighting
	LED and dark sky compliant
Other Notes	Simple, tool free maintenance

APPENDIX

HIGH LEVEL COST ESTIMATES

High Level Cost Estimates

The purpose of high level cost estimates for the various capital improvements is to assist in identifying funding priorities, funding sources and phasing.

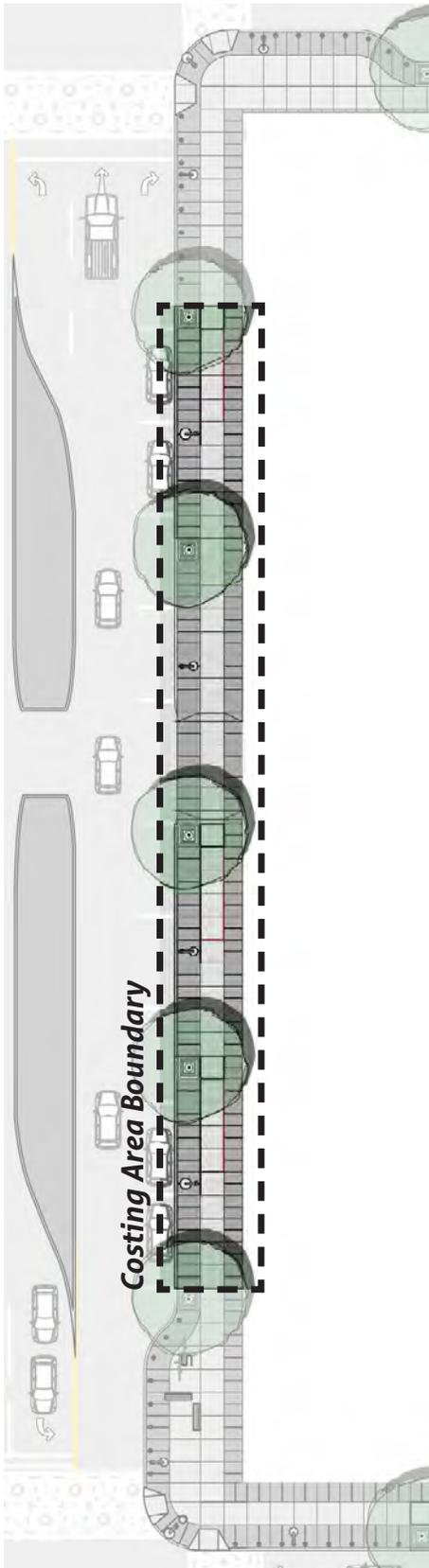
The cost estimates are based on historical data. Actual costs can vary widely depending on industry labour, material availability and specific programming elements. Figures are represented in 2015 dollars. These high level costs are provided for discussion purposes only.

Costing estimates for each phase take into consideration:

- Roadway and Infrastructure
 - GST (5%), PST (7%), and Engineering and Contingency (50%)
 - Intersection improvement allowances and removals
 - Full road reconstruction including excavation, gravels, and curb and gutter. Excavation and gravels are to 0.3 m behind curb.
 - Deep utility replacement (water, sanitary, and storm), and new water and sewer services
 - Does not include sidewalks or streetlights
 - Downtown Major Collector Road cost is based on 17.6m road width
 - Downtown Local Road is based on 13.6 m road width
- Streetscape
 - Sidewalks, Trees and Furnishings based on Option 1 - Tinted Sidewalks.
 - Cost does not include: design, administration, drainage and irrigation.
 - For a detailed summary of inclusions refer to the spreadsheets following the Phasing Diagram

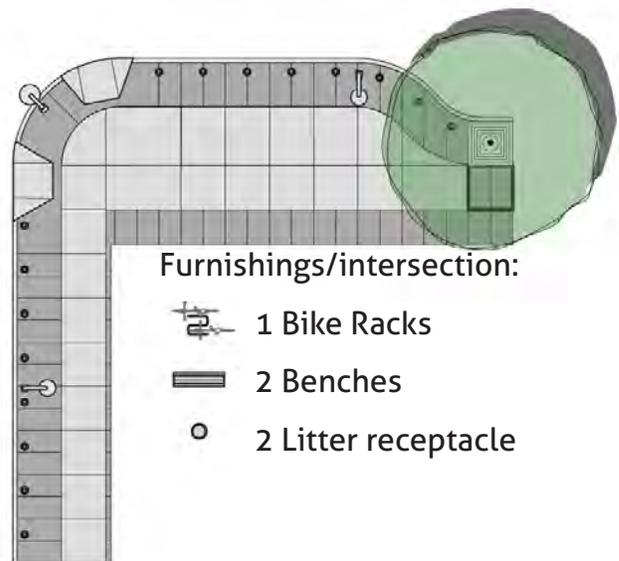
Plaza costing estimates do not include design, administration, drainage and irrigation, nor any associated roadway and infrastructure costs.

Public Realm Costing Areas



Costing Area for Downtown Major Collector, and Downtown local based Option 1 - Tinted Concrete: Single side of street

Costing Area of Corner Bulb - based Option 1 - Tinted Concrete: Single corner.



Public Realm Cost - Downtown Major Collector

Option 1 - Tinted Concrete, 4.2m Sidewalk

100.51 - Option 1 - SINGLE SIDE OF STREET - Length 63m, Depth 4.20m

ITEMS	UNIT	QUANTITY	UNIT-COST	TOTALS
I. HARD LANDSCAPE				
Leave in place concrete sidewalk and setbacks (not provided in street reconfiguration budget)	sq.m.	257	\$115.00	\$29,555.00
Angled curb and gutter (provided in street reconfiguration budget)	sq.m.	0	\$1.81/00	\$0.00
SUBTOTAL, HARD LANDSCAPE				\$29,555.00
II. SOFT LANDSCAPE				
Deciduous Trees (minimum caliper of 70mm)	each	4	\$750.00	\$3,000.00
Wood chip mulch (100mm depth)	c.u.m.	4	\$25.00	\$100.00
Structural Soil	c.u.m.	40	\$59.00	\$2,320.00
Root Barrier	per tree	4	\$60.00	\$240.00
SUBTOTAL, SOFT LANDSCAPE				\$5,660.00
III. SITE FURNISHINGS (all site furnishing costs exclude shipping and install@500)				
Lights - Pedestrian/Roadway Combination (excluding electrical) (ex. Technium Marsanne)	each	2	\$8,500.00	\$17,000.00
Lights - Pedestrian (excluding electrical) (ex. Technium Marsanne)	each	2	\$6,000.00	\$12,000.00
Tree Guards (ex. Victor Stanley 5-6, Minimum 500mm inside diameter, optimal 1.2m height*)	each	4	\$1,562.00	\$6,248.00
Tree Grates (ex. custom grate from Dobney Foundry)	each	4	\$1,111.00	\$4,444.00
SUBTOTAL, SITE FURNISHINGS				\$39,892.00
IV. SITE DEMOLITION AND PREPARATION				
Demolition and Site Preparation		1		\$10,000.00
100 Street SUBTOTAL				\$74,907.00
G.S.T (5.0%)			0.05	\$3,745.35
P.S.T. (7.0%)			0.07	\$5,243.49
Plus Contingency (30%)			0.30	\$22,472.16
GRAND TOTAL PROBABLE COST (Uncertainty @ 4-50%)				\$106,367.94
LINEAL METRE PRICE (1m x 4.20m)	1m.			\$1,688.95
			rounded	\$1,700.00

* Provided on sheet of 10 items.

** Cost estimates based on historical data and standardized plan design. Actual costs can vary widely depending on industry labour, material availability and specific programming elements. Figures are represented in 2015 dollars. These high level costs are provided for discussion purposes only.

*** Cost estimates exclude drainage and irrigation.

Public Realm Cost - Downtown Local

Option 1 - Tinted Concrete, Based on 3.2m Sidewalk Depth

TOTAL A44 - Option 1 - SINGLE SIDE OF STREET - Length 63m, Depth 3.20m

ITEMS	UNIT	QUANTITY	UNIT-COST	TOTALS
I. HARD LANDSCAPE				
Cast in place concrete sidewalk and letdowns (not provided in street reconfiguration budget)	sq.m.	195	\$115.00	\$22,425.00
Angled curb and gutter (provided in street reconfiguration budget)	sq.m.	0	\$167.00	\$0.00
SUBTOTAL, HARD LANDSCAPE				\$22,425.00
II. SOFT LANDSCAPE				
Deciduous Tree (minimum caliper of 70mm)	each	4	\$750.00	\$3,000.00
Wood chip mulch (100mm depth)	c.u.m.	4	\$25.00	\$100.00
Structural Soil	c.u.m.	40	\$59.00	\$2,320.00
Root Barrier	per tree	4	\$60.00	\$240.00
SUBTOTAL, SOFT LANDSCAPE				\$5,660.00
III. SITE FURNISHINGS (all site furnishing items include shipping and installation)				
Lights - Pedestrian/Roadway-Combination (excluding electrical) (ex. Technium Marsanne)	each	2	\$6,500.00	\$13,000.00
Lights - Pedestrian (excluding electrical) (ex. Technium Marsanne)	each	2	\$6,000.00	\$12,000.00
Tree Guards (ex. Victor Stanley 5-6; Minimum 500mm inside diameter, nominal 1.2m height*)	each	4	\$1,562.00	\$6,248.00
Tree Grates (ex. custom grate from Dabney Foundry)	each	4	\$1,111.00	\$4,444.00
SUBTOTAL, SITE FURNISHINGS				\$39,692.00
IV. SITE DEMOLITION AND PREPARATION				
Demolition and Site Preparation		1		\$10,000.00
TOT. Street SUBTOTAL				\$67,777.00
G.S.T. (5.0%)			0.05	\$3,388.85
P.S.T. (7.0%)			0.07	\$4,744.39
Plus Contingency (30%)			0.30	\$20,393.10
GRAND TOTAL PROBABLE COST (Note: Accuracy is +/- 30%)				\$96,243.34
LINEAL METRE PRICE (1m x 3.20m)	lin.			\$1,527.67
			rounded	\$1,500.00

* Price based on shipment of 10 trees

** Cost estimates based off historical data and standardized park design. Actual costs can vary widely depending on location, material availability and specific programming elements. Figures are represented in 2015 dollars. These high level costs are provided for illustrative purposes only.

*** Cost estimates exclude drainage and irrigation

Public Realm Cost - Intersection

Option 1 - Tinted Concrete, Based on Single Corner Bulb

APPENDIX - COST D SPREADSHEETS

CITY OF FORT ST. JOHN - Downtown Public Realm and Streetscape Plan

Typical Intersection Corner Bulb with Furnishings - Option 1 - Tinted Concrete

ITEMS	UNIT	QTY	UNITCOST	TOTALS
I. HARD LANDSCAPE				
Cast in place concrete sidewalk and gutters (not provided in street reconfiguration budget)	sq.m.	127	\$115.00	\$14,605.00
Angled curb and gutter (provided in street reconfiguration budget)	lin.	0	\$161.00	\$0.00
SUBTOTAL - HARD LANDSCAPE				\$14,605.00
II. SOFT LANDSCAPE				
Deciduous Trees (minimum caliper of 70mm.)	each	1	\$750.00	\$750.00
Wood chip mulch (100mm depth)	cum.	1	\$25.00	\$25.00
Structural Soil	cum.	10	\$58.00	\$580.00
Root Barrier	per tree	1	\$80.00	\$80.00
SUBTOTAL - SOFT LANDSCAPE				\$1,435.00
III. SITE FURNISHINGS (all site furnishing costs excluded except and installation)				
Benches (ex. Victor Stanley - RBW-28)**	each	0.50	\$1,710.00	\$855.00
Litter Bins (ex. Victor Stanley SD-42 (red, rain barrel) **)	each	0.50	\$1,974.00	\$987.00
Bike Rack - 6-B bikes (ex. Cora W-series)	each	0	\$60.00	\$0.00
Bike Rack - 3-B bikes (ex. Cora W-series)	each	0.25	\$360.00	\$90.00
Bollards (ex. Martin MTB650-B4)	each	16	\$585.00	\$9,360.00
Lights - Pedestrian/Roadway Combination (excluding electrical) (ex. Technium Marianne)	each	1	\$8,500.00	\$8,500.00
Lights - Pedestrian (excluding electrical) (ex. Technium Marianne)	each	2	\$6,000.00	\$12,000.00
Tree Guards (ex. Victor Stanley S-6, Minimum 500mm inside diameter, optimal 1.2m height†)	each	1	\$1,562.00	\$1,562.00
Tree Grates (ex. custom grates from Dobney Foundry)	each	1	\$1,111.00	\$1,111.00
SUBTOTAL - SITE FURNISHINGS				\$34,472.50
IV. SITE DEMOLITION AND PREPARATION				
Demolition and Site Preparation		1		\$2,000.00
SUBTOTAL Typical Single Corner Bulb - Option 1				\$53,492.50
SUBTOTAL Typical Intersection (4 Corners):		4	\$52,492.50	\$209,970.00
G.S.T. (5.0%)			0.05	\$10,498.50
P.V.T. (7.0%)			0.07	\$14,692.80
Plus Contingency (30%)			0.30	\$62,991.00
GRAND TOTAL PROBABLE COST (Note: Accuracy is +/- 50%)				\$298,152.30
Cost per corner bulb	each			\$74,538.08
			rounded	\$75,000.00

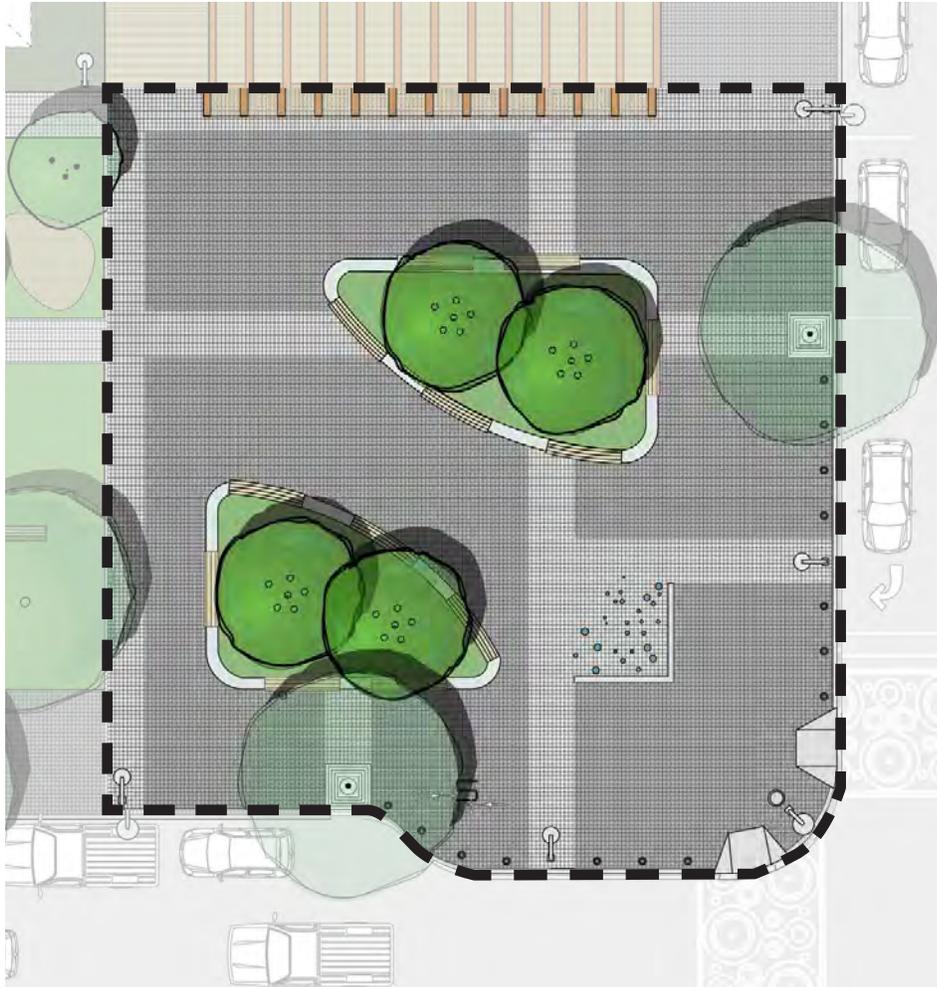
† Price based on calipers of 1.0 metre

** Cost estimates based on historical data and manufacturer's price design. Actual costs can vary widely depending on industry labour, material availability and specific programming elements. Figures are represented in 2015 dollars. These high level costs are provided for discussion purposes only.

*** Cost estimate includes drainage and irrigation

Old Fort Corner Plaza

Costing Area Boundary



Old Fort Corner Plaza

Old Fort - Corner Plaza only

ITEMS	UNIT	QTY	UNIT-COST	TOTALS
I. HARD LANDSCAPE				
Standard concrete paver sandset (ex. Abbotsford)	sq.m.	920	\$110.00	\$101,200.00
Cast in place concrete planter w. wide seating edge	c.u.m	20	\$270.00	\$5,400.00
Angled curb and gutter	l.m.	110	\$161.00	\$17,710.00
SUBTOTAL, HARD LANDSCAPE				\$124,310.00
III. SOFT LANDSCAPE				
Deciduous shade trees (min. 700mm caliper)	each	2	\$750.00	\$1,500.00
Deciduous multi-stem specimen trees (height 10'-12')	each	4	\$750.00	\$3,000.00
Deciduous Multi-stem small tree/large shrub (height 8'-10')	each	2	\$250.00	\$500.00
Shrubs and Groundcover	sq.m.	70	\$125.00	\$8,750.00
Structural Soil	c.u.m	20	\$58.00	\$1,160.00
Root Barrier	per tree	2	\$60.00	\$120.00
Wood chip mulch (100mm depth)	c.u.m	4	\$25.00	\$100.00
Growing medium	c.u.m	75	\$22.00	\$1,650.00
SUBTOTAL, SOFT LANDSCAPE				\$15,280.00
III. SITE FURNISHINGS (all site furnishing costs exclude shipping and installation)				
Custom wood bench inserts	each	12	\$1,250.00	\$15,000.00
Litter Bins (ex. Victor Stanley SD-42)*	each	2	\$1,195.00	\$2,390.00
Bike Rack - 6-8 bikes (ex. Cora)	each	2	\$660.00	\$1,320.00
Bollard (ex. Maglin MTB650 series)	each	18	\$585.00	\$10,530.00
Lights - Pedestrian/Roadway Combination (excluding electrical) (ex. Technilum Marsanne)	each	3	\$8,500.00	\$25,500.00
Lights - Pedestrian (excluding electrical) (ex. Technilum Marsanne)	each	2	\$6,000.00	\$12,000.00
Tree Guards (ex. Victor Stanley S-6, Minimum 500mm inside diameter, optimal 1.2m height*)	each	2	\$1,562.00	\$3,124.00
Tree Grates (ex. custom grate from Dobney Foundry)	each	2	\$1,111.00	\$2,222.00
SUBTOTAL, SITE FURNISHINGS				\$66,740.00
IV. SPECIAL STRUCTURES				
Splash Fountain (at grade)	each	1	\$150,000.00	\$150,000.00
SUBTOTAL, SPECIAL STRUCTURE				\$150,000.00
V. DEMOLITION AND SITE PREP				
Demolition and Site Preparation		1	\$20,000.00	\$20,000.00
Old Fort Hotel Site SUBTOTAL				\$376,330.00
G.S.T (5.0%)			0.05	\$18,816.50
P.S.T. (7.0%)			0.07	\$26,343.10
Plus Contingency (30%)			0.30	\$112,899.00
OPINION OF PROBABLE COST (Note: Accuracy is +/- 30%)				\$534,388.60

* Price based on shipment of 10 items

** Cost estimates based on historical data and standardized park design. Actual costs can vary widely depending on industry labour, material availability and specific programming elements. Figures are represented in 2015 dollars. These high level costs are provided for discussion purposes only.

*** Cost estimates exclude drainage and irrigation

Old Fort Market Plaza - Option 1

Costing Area Boundary



Old Fort Market Plaza

Option 1 - Community Barn/Special Pavers

Old Fort Market Plaza - Option 1- Community Barn/Special Pavers

ITEMS	UNIT	QTY	UNIT-COST	TOTALS
I. HARD LANDSCAPE				
Cast in place concrete sidewalk (incl. excav. & base gravel)	sq.m.	65	\$110.00	\$7,150.00
Standard concrete paver sandset (ex. Abbotsford)	sq.m.	920	\$110.00	\$101,200.00
Ashpalt parking (incl. excav. & base)	sq.m.	360	\$105.00	\$37,800.00
Wood deck (incl. substructure, gravel)	sq.m.	115	\$115.00	\$13,225.00
Cast in place concrete planter w. seating edge	c.u.m	20	\$270.00	\$5,400.00
Cast in place concrete edge	l.m.	36	\$80.00	\$2,880.00
Rolled curb and gutter	l.m.	110	\$161.00	\$17,710.00
SUBTOTAL, HARD LANDSCAPE				\$178,215.00
II. SOFT LANDSCAPE				
Deciduous shade trees (min. 700mm caliper)	each	15	\$750.00	\$11,250.00
Deciduous multi-stem specimen trees (height 10'-12')	each	4	\$750.00	\$3,000.00
Deciduous Multi-stem small tree/large shrub (height 8'-10')	each	7	\$250.00	\$1,750.00
Shrubs and Groundcover	sq.m.	130	\$125.00	\$16,250.00
Growing medium	c.u.m	315	\$22.00	\$6,930.00
Gravel turf	sq.m	1010	\$35.00	\$35,350.00
Lawn (incl. finish grade preparation)	sq.m.	465	\$5.00	\$2,325.00
SUBTOTAL, SOFT LANDSCAPE				\$76,855.00
III. SITE FURNISHINGS (all site furnishing costs exclude shipping and installation)				
Benches (ex. Victor Stanley - RBW-28)*	each	3	\$1,400.00	\$4,200.00
Custom wood bench inserts	each	12	\$1,250.00	\$15,000.00
Litter Bins (ex. Victor Stanley SD-42)*	each	2	\$1,195.00	\$2,390.00
Bike Rack - 6-8 bikes (ex. Cora)	each	2	\$660.00	\$1,320.00
Bollard (ex. Maglin MTB650 series)	each	18	\$585.00	\$10,530.00
Picnic table	each	6	\$1,500.00	\$9,000.00
Lights - Pedestrian (excluding electrical)	each	4	\$6,000.00	\$24,000.00
SUBTOTAL, SITE FURNISHINGS				\$66,440.00
IV. SPECIAL STRUCTURES				
Barn	each	1	\$500,000.00	\$500,000.00
Play area (modest)	each	1	\$85,000.00	\$85,000.00
Splash Fountain (at grade)	each	1	\$150,000.00	\$150,000.00
SUBTOTAL, SPECIAL STRUCTURES				\$735,000.00
Old Fort Hotel Site SUBTOTAL				\$1,056,510.00
G.S.T (5.0%)			0.05	\$52,825.50
P.S.T. (7.0%)			0.07	\$73,955.70
Plus Contingency (30%)			0.30	\$316,953.00
OPINION OF PROBABLE COST (Note: Accuracy is +/- 30%)				\$1,500,244.20

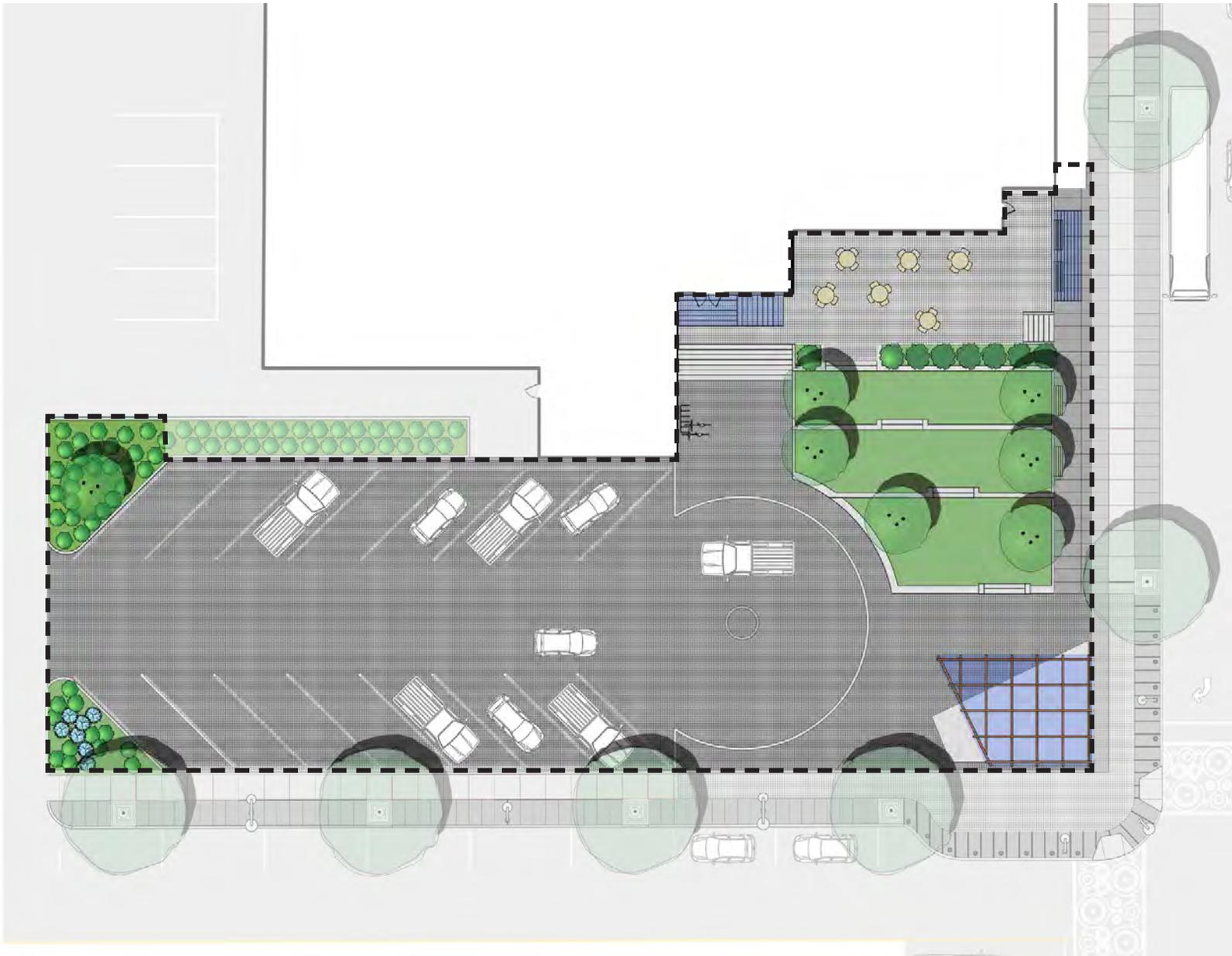
* Price based on shipment of 10 items

** Cost estimates based on historical data and standardized park design. Actual costs can vary widely depending on industry labour, material availability and specific programming elements. Figures are represented in 2015 dollars. These high level costs are provided for discussion purposes only.

*** Cost estimates exclude drainage and irrigation

NPCC South Plaza and Bus Exchange

Costing Area Boundary



NPCC South Plaza and Bus Exchange

Option 1 - Special Pavers

North Peace Cultural Centre South Plaza - Option 1- Special Pavers

ITEMS	UNIT	QTY	UNIT-COST	TOTALS
I. HARD LANDSCAPE				
Cast in place concrete wall varying heights, rebar and footings	sq.m.	110	\$315.00	\$34,650.00
Standard concrete paver set in mortar (ex. Abbotsford)	sq.m.	130	\$130.00	\$16,900.00
Standard concrete paver sandset - parking (ex. Abbotsford)	sq.m.	775	\$125.00	\$96,875.00
Standard concrete paver sandset (ex. Abbotsford)	sq.m.	320	\$110.00	\$35,200.00
Precast concrete stair treads (incl. substructure)	sq.m.	25	\$335.00	\$8,375.00
Rolled curb and gutter	l.m.	40	\$95.00	\$3,800.00
Angled curb and gutter	l.m.	45	\$161.00	\$7,245.00
SUBTOTAL, HARD LANDSCAPE				\$203,045.00
II. SOFT LANDSCAPE				
Deciduous multi-stem specimen trees (height 10'-12')	each	6	\$750.00	\$4,500.00
Shrubs and Groundcover (raingarden and planters)	sq.m.	65	\$125.00	\$8,125.00
Growing medium	c.u.m	185	\$22.00	\$4,070.00
Mulch (80mm depth)	c.u.m	6	\$30.00	\$180.00
Lawn (incl. finish grade preparation)	sq.m.	168	\$5.00	\$840.00
SUBTOTAL, SOFT LANDSCAPE				\$17,715.00
III. SITE FURNISHINGS (all site furnishing costs exclude shipping and installation)				
Attached Benches	each	4	\$1,356.00	\$5,424.00
Handrail	l.m.	25	\$250.00	\$6,250.00
Bike Rack (ex. Cora)	each	1	\$660.00	\$660.00
Bollard (ex. Maglin MTB650 series)	each	20	\$585.00	\$11,700.00
Litter Bins (ex. Victor Stanley SD-42 incl. rain bonnet)*	each	1	\$1,974.00	\$1,974.00
Lights - Pedestrian (excl. electrical)	each	2	\$6,000.00	\$12,000.00
SUBTOTAL, SITE FURNISHINGS				\$38,008.00
IV. SPECIAL STRUCTURE (BANDSTAND)				
Wood/Glass/Steel Canopy on paved platform	each	1	\$37,000.00	\$37,000.00
SUBTOTAL, SPECIAL STRUCTURE				
V. DEMOLITION AND SITE PREP				
Demolition and Site Preparation		1	\$35,000.00	\$35,000.00
North Peace Cultural Centre Plaza SUBTOTAL				\$330,768.00
G.S.T (5.0%)			0.05	\$16,538.40
P.S.T. (7.0%)			0.07	\$23,153.76
Plus Contingency (30%)			0.30	\$99,230.40
OPINION OF PROBABLE COST (Note: Accuracy is +/- 30%)				\$469,690.56

* Price based on shipment of 10 items

** Cost estimates based on historical data and standardized park design. Actual costs can vary widely depending on industry labour, material availability and specific programming elements. Figures are represented in 2015 dollars. These high level costs are provided for discussion purposes only.

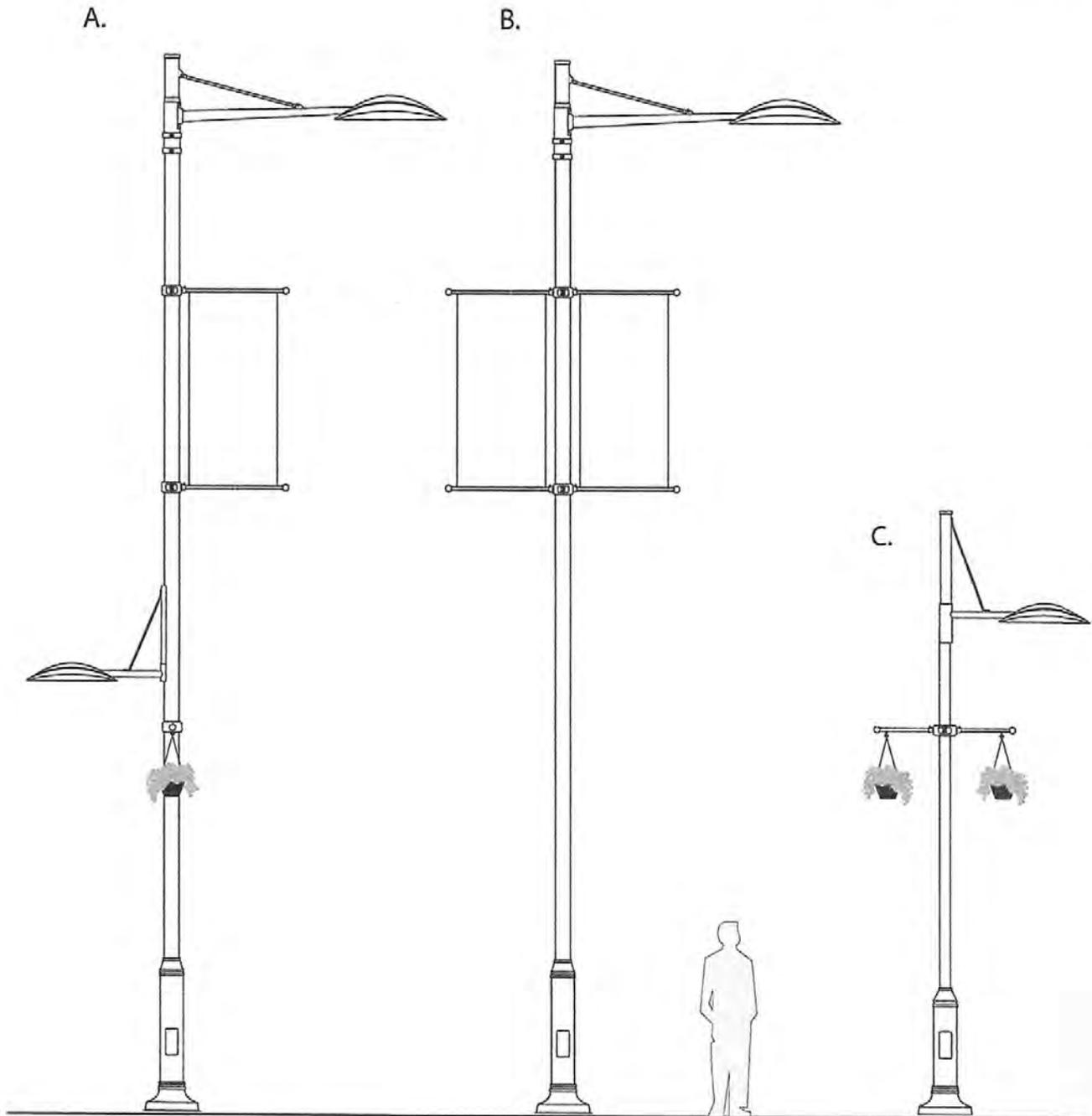
*** Cost estimates exclude drainage and irrigation

PRODUCT INFORMATION

Street Light Standard

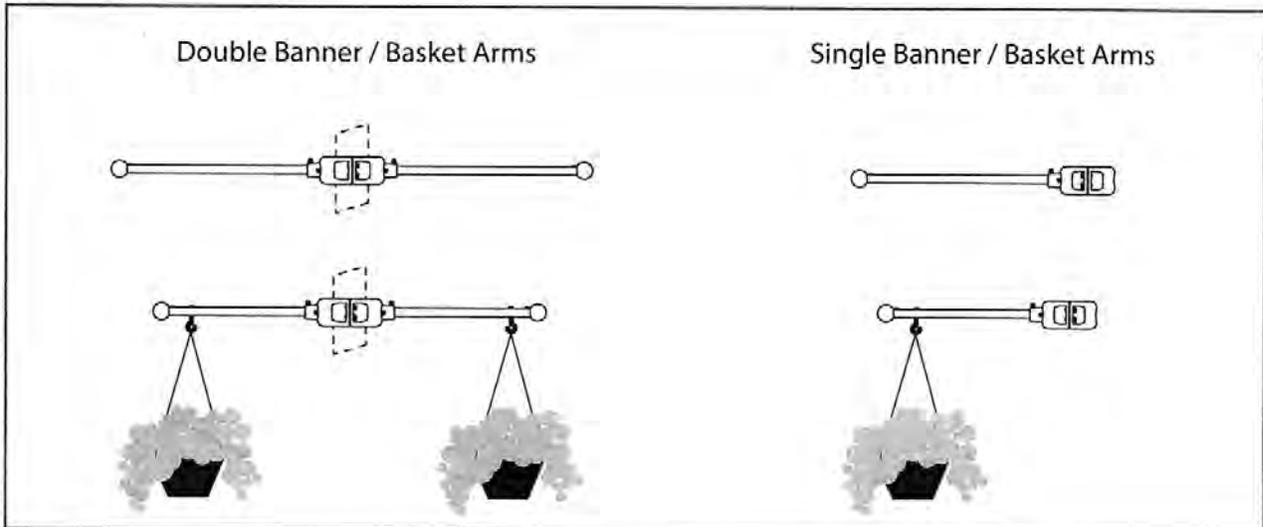
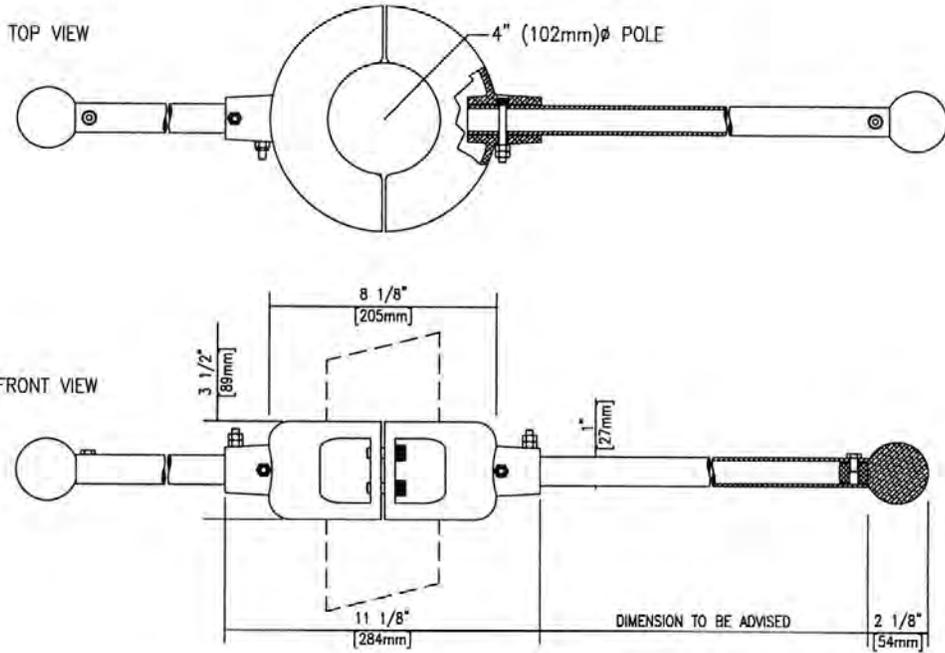
Lighting Option 2: Phillips LP Lumec Large Capella

THIS DRAWING CONTAINS
COMPONENTS
MANUFACTURED BY: **PHILIPS
LUMEC**

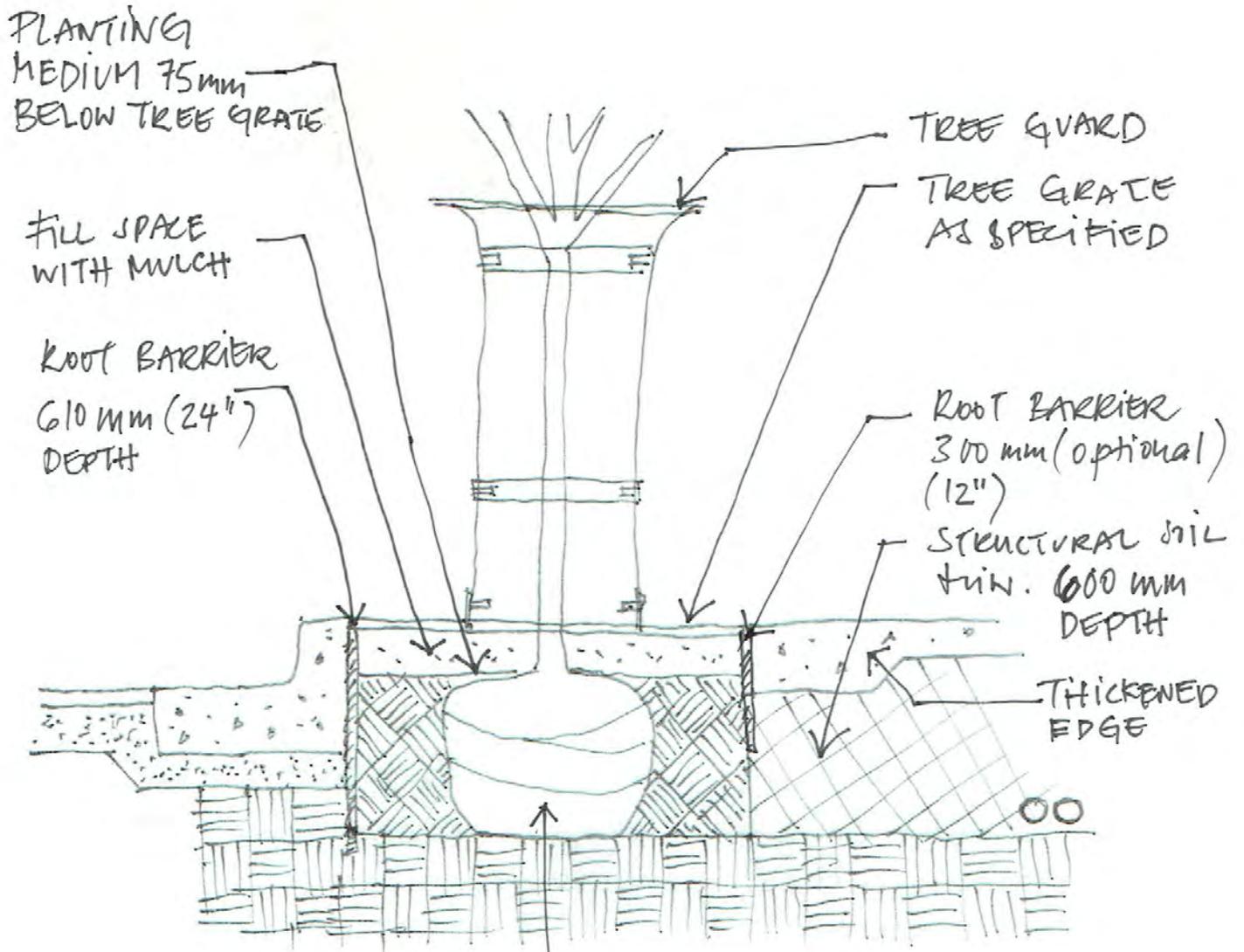


Lighting Option 2: Phillips LP Lumec Large Capella

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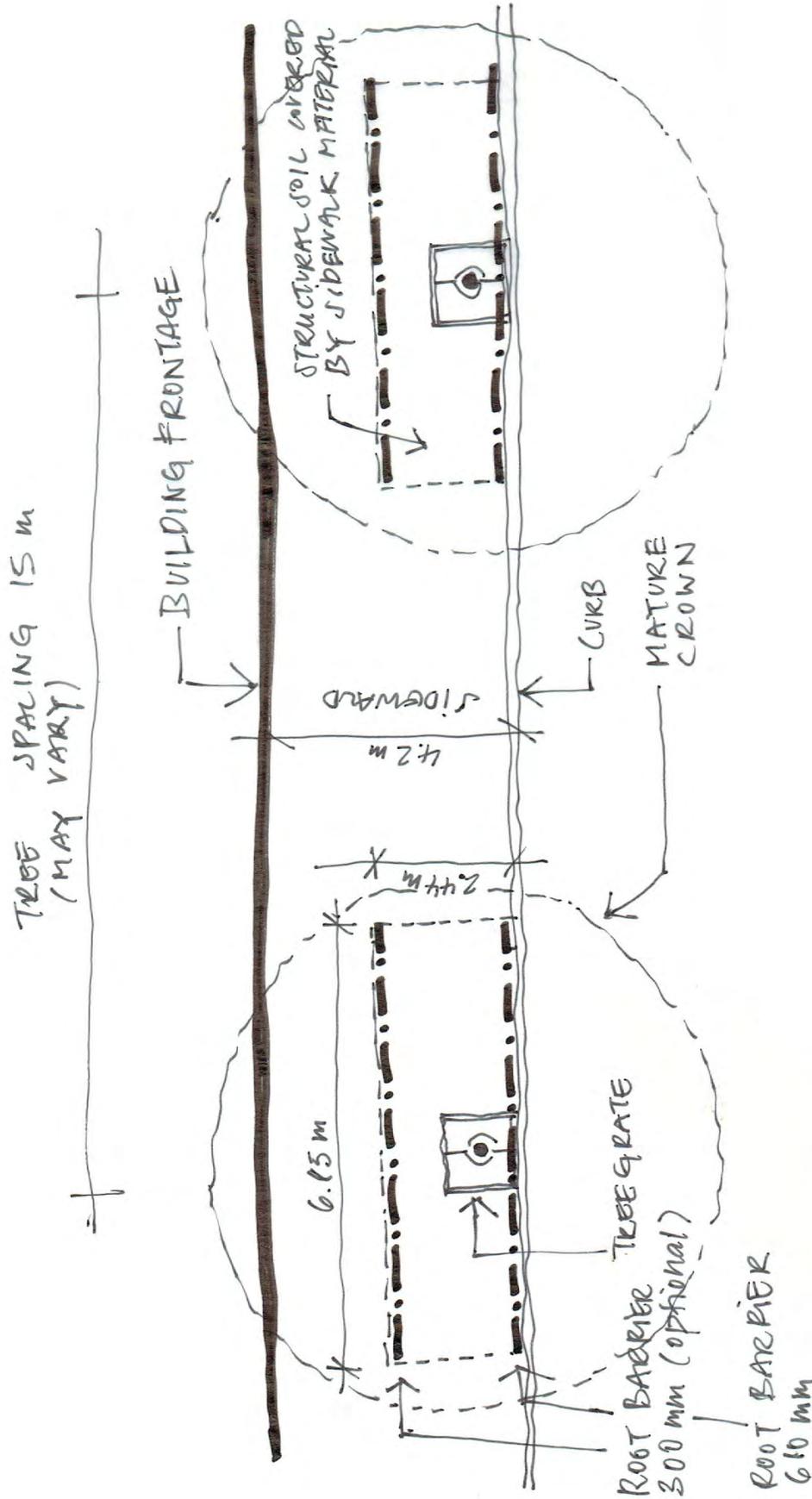
Tree Planting Detail



DRAFT
 TREE PLANTING USING
 STRUCTURAL SOIL
 SCALE 1:20

SET ROOTBALL ON
 COMPACTED SOIL
 DEPTH TO SUIT HEIGHT
 OF ROOTBALL

Tree Planting Detail



- IDEAL STRUCTURAL SOIL VOLUME 10 cubic metres
- DEPTH OF WELL MIN 0.60 m
- TREE WELL SIZE 2.44 m x 6.85 m x 0.60 m

TREE WELL/STRUCTURAL SOIL
PLAN 1:100

Gravel Turf

What is gravel turf?

Gravel turf is an ecological and economical technology for surface consolidation, particularly suitable for parking areas. The vegetation base layer of gravel turf consists of recycling materials or natural gravel in combination with a certain allotment of soil and/or compost. The components have to be mixed according to a certain grain size distribution. On this base layer suitable grasses and herbs are planted.

Contrary to the prevailing methods of surface consolidation (asphalt, concrete) gravel turf allows laminar infiltration of precipitation. Consequently gravel turf contributes to passive flood prevention, releases the sewage system and enriches the groundwater. The green appearance of gravel turf is certainly a visual improvement of the otherwise grey cityscape. Furthermore the plant's evapotranspiration have positive effects on the urban micro-climate.

Applicability

Gravel turf is most suitable for parking areas. It may also be used for emergency access e.g. in parks or to residential buildings and for infrequently used roads.



Gravel Turf

How to construct gravel turf?

The construction of gravel turf is comparatively simple. In case of suitable subsoil the construction of a 30 cm of vegetation base layer is sufficient. This is called "one layer method", as the whole layer consists of the same material.

If the subsoil is unsuitable or heavy loading intensity is expected, the subsoil has to be exchanged and a plane constructed. Suitable materials for the plane are natural gravel as well as recycling materials, as they are commonly used for road constructions.

Plane

The plane of gravel turf should have the following parameters

Load bearing capacity (EV2 ~ 45 MN/m²)

Permeability (kf 10⁻⁴ to 10⁻⁶ m/s)

Maximum inclination 5%

Evenness (max. 3 cm on 4m slat)

Vegetation base layer

The vegetation base layer should correspond to the following criteria:

Vegetation base layer thickness: 15 to 30 cm (30 cm is

recommended); if vegetation base layer width exceeds 20 cm it should be split up into two layers of e.g. 15 cm

Humidity of materials: The materials should be "earth-moist" during the whole construction process

Layer continuity: to provide an optimal vertical continuity it is recommended to roughen the surface of the already compacted sub layer before constructing the next.

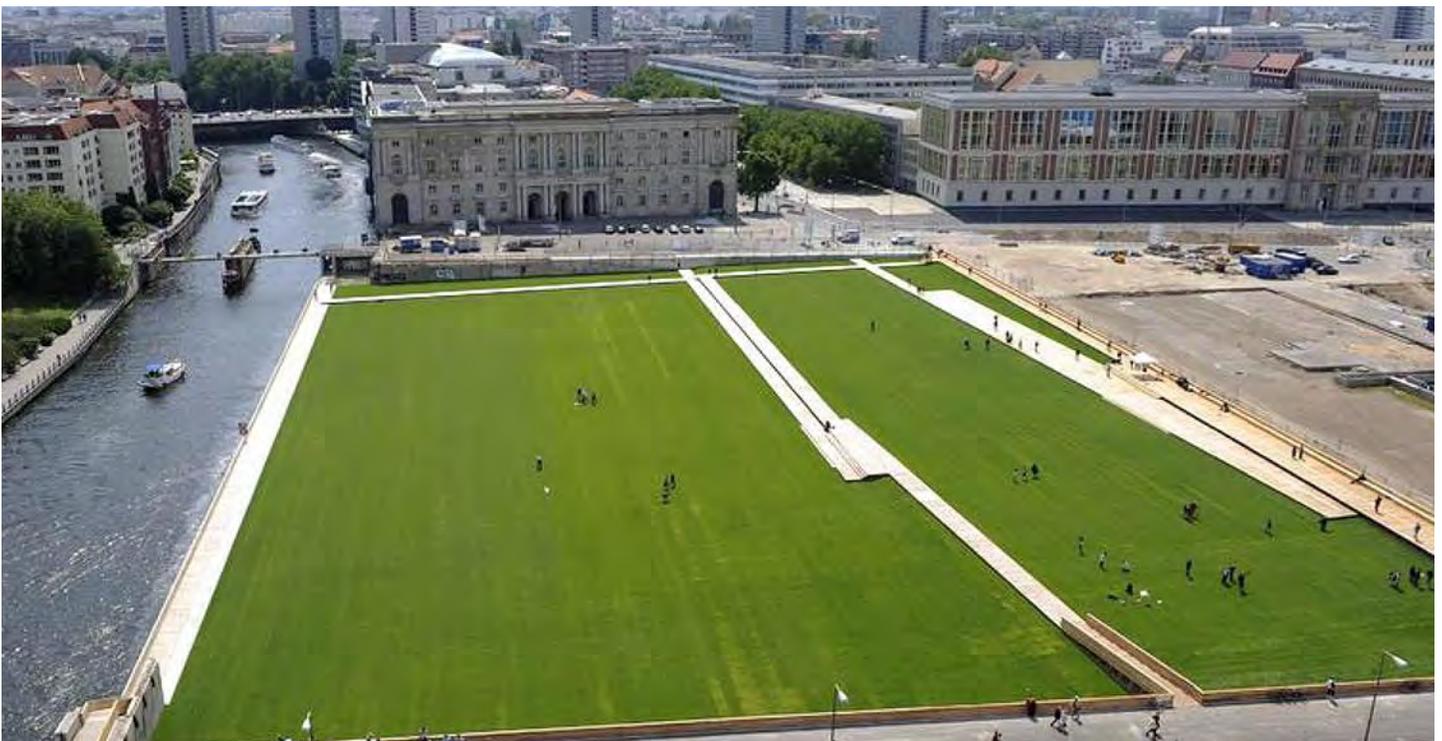
Construction technique: to avoid decomposition, it is recommended to build in the materials by means of a digger directly from the truck.

Compaction: a roller compactor of 8 tons is recommended; the compaction is conducted without vibration

Load bearing capacity: approximately 45 MN/m²

Evenness and inclination: it is recommended to ascertain the evenness and inclination of the different layers (max. inclination 5%, max. deviation from the 4m slat: 3cm)

Time of construction: spring has proven to be best suitable for the construction of gravel turf (from begin of frost free nights until the end of May)



Gravel Turf

Sowing

The seeds are sowed at a ratio of 10 g seeds per m². The vegetation base layer has to be watered before and after the sowing to ensure optimal contact between seeds and substrate.

In the course of the GREEN CONCRETE project two different seeds assortments are tested. One assortment is based on the recommendation of the FLL (RSM 5.1, FLL 2008) and consists solely of grass seeds. The second assortment has been developed by the University of Natural Resources and Applied Life Sciences Vienna. This seeds mixture is composed of grasses and herbs, which are suitable for all project research locations.

Growth maintenance

At least 50% of the gravel turf surface needs to be covered by plants in order to be acceptable. Thus growth maintenance is obligatory. In case of poor nutrient supply the application of fertiliser may be necessary.

Operational maintenance

The degree of maintenance effort of gravel turf depends predominantly on the intensity of usage. The mowing frequency for instance depends on the stress the plants have. It is assumed, that the test sites of the GREEN CONCRETE project with defined loading (2 loadings per week) have to be mowed 3 times per year.

The removal of fallen leaves and waste may also be necessary.

Winter service

If snow clearance is necessary, it should be conducted with a snow plough. The shield of the snow plough shall be kept 3 to 5 cm above surface to avoid damage of the plant cover. Commonly used road grit may be dispersed.

Reference:

Schotterrasen - http://www.schotterrasen.at/e_index.htm



ROADS AND INFRASTRUCTURE COST ESTIMATE ASSUMPTIONS

Downtown Fort St. John Road and Deep Utilities Cost Estimates

Downtown Major Collector Road Cost per Metre (\$/m)	\$ 7,100.00
Downtown Local Road Cost per Metre (\$/m)	\$ 5,800.00

Zone	Downtown Major Road Approx Length (m)	Downtown Local Road Approx Length (m)	Zone Cost Estimate (\$)
1	700	0	\$ 5,000,000.00
1B	450	0	\$ 3,200,000.00
2	210	420	\$ 3,900,000.00
3	410	0	\$ 2,900,000.00
4	310	0	\$ 2,200,000.00
Total \$			17,200,000.00

Cost Estimate Assumptions

Class D Cost Estimate

Includes GST (5%), PST (7%), and Engineering and Contingency (50%)

Zone identification numbers refers to the attached sketch provided by Modus

Includes intersection improvement allowances and removals

Includes full road reconstruction including excavation, gravels, and curb and gutter. Excavation and gravels are to 0.3 m behind curb.

Includes deep utility replacement (water, sanitary, and storm), and new water and sewer services

Does not include sidewalks or streetlights

Downtown Major Collector Road cost is based on 17.6m road width

Downtown Local Road is based on 13.6 m road width

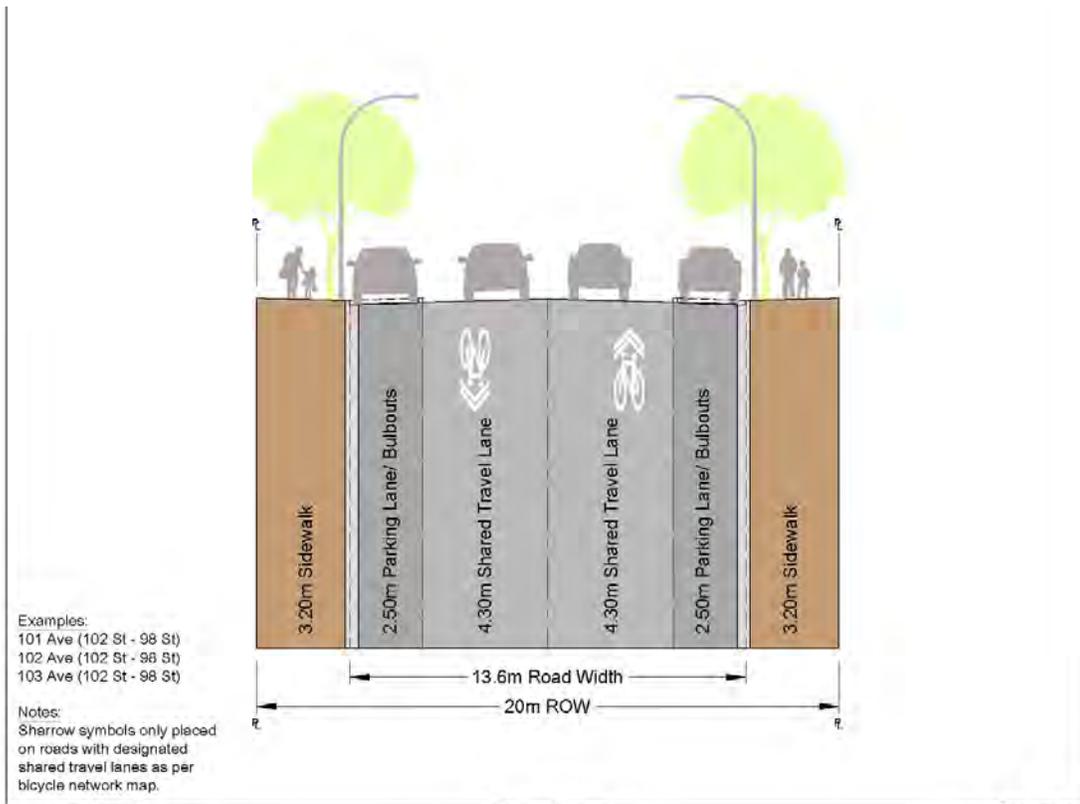


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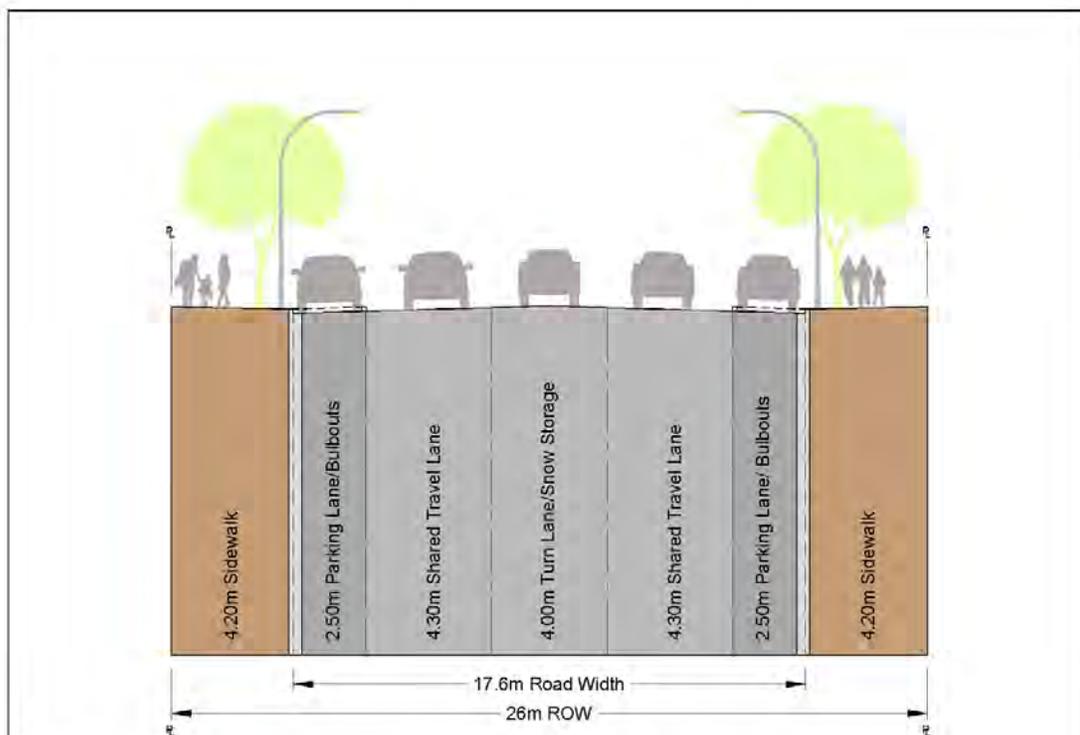
ROADS AND INFRASTRUCTURE COST ESTIMATE ASSUMPTIONS



DATE: 2015-04-08

Downtown
Local

DT1



DATE: 2015-04-08

Downtown
Major Collector

DT2