

TRANSIT ORIENTED DEVELOPMENT DESIGN GUIDELINES



DRAFT

Table of Contents

1.0 Introduction

1.1 Overview	4
1.2 What is TOD?	4
1.3 Benefits of TOD	5
1.4 Guideline Organization	6
1.5 Applying the Guidelines	6

2.0 TOD Principles + Parameters

2.1 TOD Principles	8
2.2 General TOD Building Parameters	10

3.0 TOD Typologies

3.1 High Density Employment	18
3.2 High Density Mixed Use	20
3.3 High Density Residential	22
3.4 Medium Density Residential	24
3.5 Commercial Retrofit	26

1.0 INTRODUCTION

1.1 Overview

The Transit Oriented Development (TOD) Guidelines provide direction on the design and construction of new development along Saskatoon's priority transit nodes and corridors. They assist the City, businesses and citizens in planning ahead for the integration of transit and land use in a coordinated and mutually beneficial way.

The Guidelines are aligned with the City of Saskatoon's **Growth Plan to Half a Million (Growth Plan)**. The purpose of the **Growth Plan** is to proactively manage future growth to ensure that Saskatoon remains a healthy, sustainable, accessible and attractive place to live for future generations. This includes the following goals:

- Corridor Growth: to encourage growth near Saskatoon's existing major corridors;
- Transit: to make transit more attractive to people as Saskatoon grows; and
- Core Bridges: to make the most of Saskatoon's existing road infrastructure.

The Guidelines will be used to communicate the City's expectations and to assess rezoning or development proposals along the priority transit nodes and corridors.

1.2 What is TOD?

Transit Oriented Development (TOD) is generally defined as higher density, mixed use, human-scale development around frequent transit facilities. What sets transit oriented development apart from traditional development is an increased emphasis on providing access to transit through mixed use areas with higher density, degree of activity and amenities.

TOD encourages transit supportive land use with the intent to provide more balanced transportation choices to allow people to drive less and walk, cycle, and take transit more. TOD guidelines can be used as a tool to guide development that recognizes the important relationship between land use and transportation planning. Integrating land use and transportation, especially transit, is an important theme in both the City of Saskatoon's Growth Plan and the Official Community Plan.

The overall goal of TOD is to encourage development with specific forms and features that facilitates easier access to transit and create attractive pedestrian-focused areas rich in amenities and providing a mixture of uses.

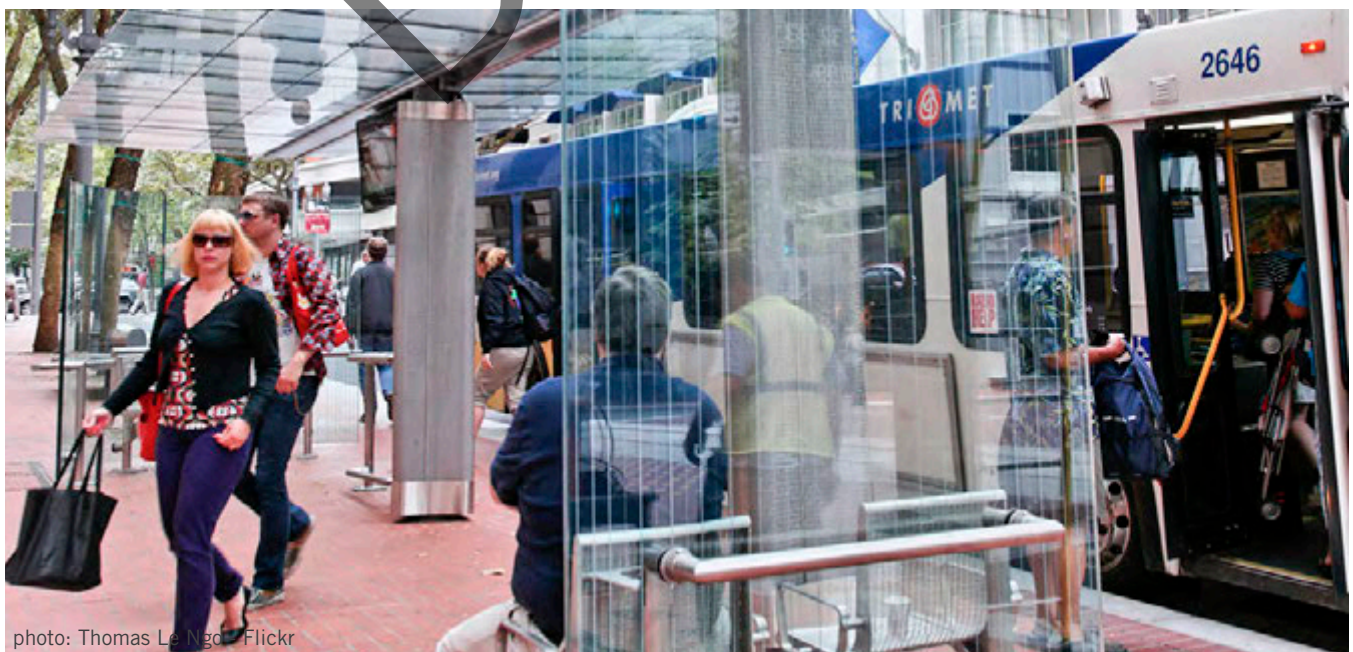


photo: Thomas Le Ngoc Flickr

1.3 Benefits of TOD

Cities around the globe are recognizing the importance of aligning transit strategies with urban growth to improve the relationship between mobility and urban living. TOD - transit-oriented development – builds on this idea, creating walkable, sustainable communities for people of all ages and incomes, locating them close to transit to facilitate moving around the city whether for work, recreation or daily services. Shifting demographics and a growing desire for more varied and active lifestyles have also led to significant and sustained growth in TOD investment throughout North America. The benefits of TOD are many and local real estate markets are responding accordingly as cities re-orient themselves around high quality transit infrastructure and public amenities.

TOD is more sustainable

- More efficient use of land and conservation of habitat
- Less oil and gas consumption and cleaner air

TOD is good for the City of Saskatoon

- Reduces infrastructure costs
- Allows for more efficient, cost-effective transit service
- Increases property tax revenue

TOD is good for business

- TOD has proven to be one of the best investment opportunities in Canada.¹ Demand is fueled by people who are choosing to live within city core to be close to both work and the lifestyles they desire
- Aligns with City of Saskatoon policies around neighbourhood design, sustainability and economic development
- Helps to attract and retain talented workers, high-quality jobs and economic investment

TOD is good for communities

- Creates value that can be reinvested in communities
- Increases foot traffic which supports local businesses
- Increases affordability as people have more housing and transportation choices



photo: Centre for Clean Air Policy



photo: Blogspot.ca

Figure 1 - The benefits of urban living are attracting an increasing number of people to neighbourhoods that can provide transportation alternatives, amenities and a sense of community

1.4 Guideline Organization

TOD Principles

These principles lay out the foundation for high quality transit oriented development in Saskatoon and will govern the assessment of any new rezoning or development applications. The principles are by necessity higher level guidelines that can be applied to a wide range of development types and scales.

General TOD Building Parameters

The general building parameters provide additional guidance on design and development along the priority transit nodes and corridors. These general parameters should apply to all new development within walking distance of future rapid transit to ensure a high quality, walkable urban form that supports transit use and neighbourhood character.

TOD Typologies

A high level assessment of existing conditions in Saskatoon yielded approximately five typical development conditions that cover the majority of redevelopment areas adjacent to major transit corridors. They vary according to transit access, traffic volume, proximity to the city centre, parcel size, and land use. They include:

- High Density Employment;
- High Density Mixed Use;
- High Density Residential;
- Medium Density Residential; and
- Commercial retrofit.

This section augments the General TOD Building Parameters to provide additional guidance relating to building massing, design and neighbourhood integration within these zones.

1.5 Applying the Guidelines

How to Apply the Guidelines

The General TOD Building Parameters will be used to evaluate rezoning applications on sites within 400 metres of existing or planned rapid transit corridors. In urban areas that fall within one of the five typical conditions described in the TOD

Typologies section, these guidelines will provide additional guidance on building design, massing and neighbourhood integration.

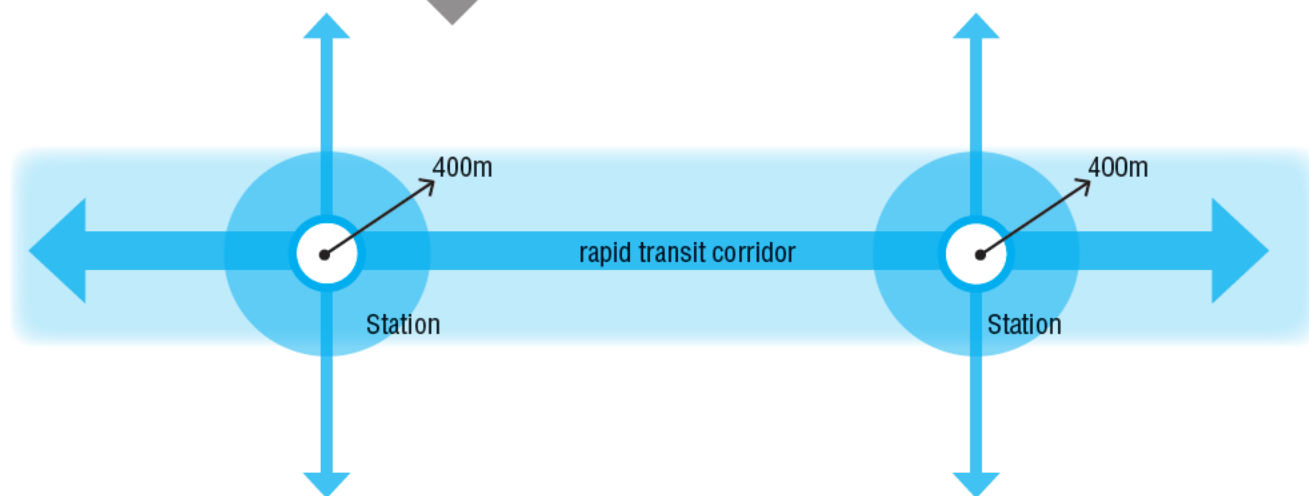




Figure 2 - Conceptual station locations for the red line rapid transit corridor in Saskatoon.

2.0 TOD PRINCIPLES + PARAMETERS

2.1 TOD Principles

Transit Oriented Development (TOD) facilitates transit and improves walkability. In different contexts and locations, the approach and implementation of TOD may differ. While no two TOD areas are the same, the principles listed below provide a

common framework for TOD regardless of the size, scale and function. These principles are inherently interrelated and will necessarily have considerable overlap in their application.

1. Street Design for All Users

Streets should be designed for users of a variety of modes of transportation, as well as provide a universally accessible and friendly environment for pedestrians. Transit stations will be well-connected, visible and accessible, and designed to have minimal impact on traffic flow.



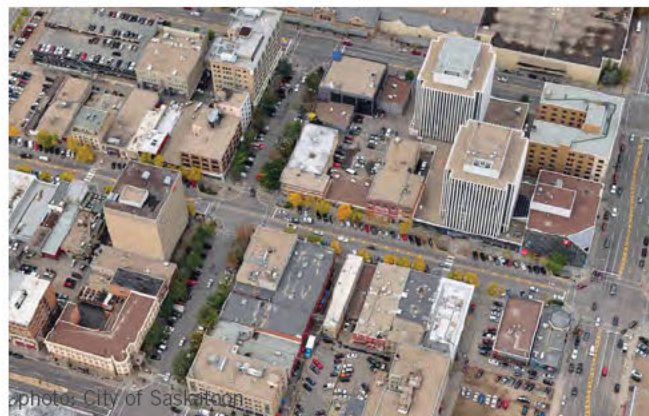
2. Compact Mixed Use

Encouraging compact, mixed-use development around rapid transit is key for establishing a robust and well-used transportation system. A mixture of commercial, residential, office and civic uses along rapid-transit corridors will create vibrant and well connected communities. Providing amenities, employment and activities around transit stops will create liveable centres and ensure use throughout the day.



3. Fine Grained Walkable Neighbourhood

A key to having a walkable neighbourhood is ensuring a fine grained block structure. Activating laneways and encouraging mid-block connections for blocks with larger lengths are some ways to achieve this. By allowing people more ways to reach their destination, a richer urban fabric is created with more opportunities for development to tie in to the transit network. It also provides route choice for users and an easy to understand and intuitive street network.



4. Pedestrian Friendly Buildings

Urban development should never turn its back on the street. Buildings that engage with pedestrians and enhance the streetscape are an important element of successful transit-oriented development. Active ground floor uses are critical in creating a vibrant street environment. Establishing guidelines for setbacks, weather protection, glazing ratios and openings will help to create an attractive and welcoming environment for pedestrians, cyclists and drivers alike.



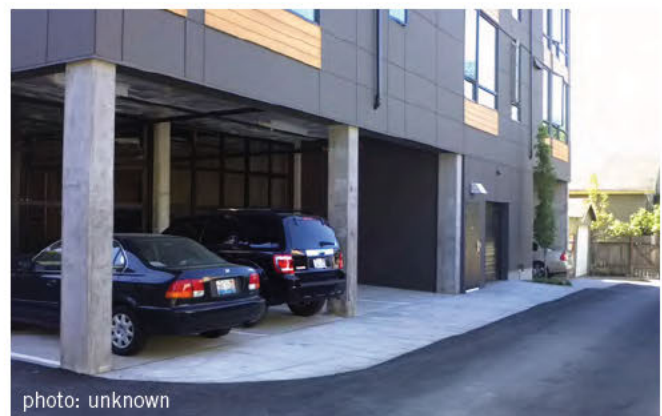
5. Enhanced Public Realm

TOD sites provide a perfect opportunity for enhancing the public realm, which support higher densities and private development. Small measures, such as well designed landscaping, lighting and street furniture can dramatically enhance the public realm. Taking advantage of underutilized spaces to create small plazas, pocket parks or gathering areas will increase the attractiveness of the streetscape. Successful public realm design will facilitate access to transit and also takes transit stops and shelters into consideration.



6. Balanced Approach to Parking

Ensuring parking demand and supply are balanced in a reasonable manner is another crucial aspect to successful transit oriented development. Whenever possible, surface parking will be avoided in favour of tuck-under, structured or below grade parking. Parking should also be shielded from the street and pedestrian areas. This can be accomplished through site design, planting, architectural screening or other methods.



2.2 General TOD Building Parameters

Transit Oriented Development (TOD) represents a significant opportunity for a new kind of urban lifestyle that is attractive and affordable for a growing number of people in Saskatoon. To successfully deliver on this promise, TOD must provide a high quality, livable urban environment that attracts new residents, integrates with existing neighbourhoods and raises the bar for urban living in Saskatoon.

Listed below are the general building parameters for high quality, livable and sustainable TOD. While these guidelines focus on private realm development, it is important to acknowledge the critical role that the public realm plays in creating high quality urban environments. More information on the design of complete streets that support TOD can be found in [Appendix A](#).

Connectivity

INTENT: To support direct and comfortable pedestrian and bike connections to key amenities and destinations

- Provide mid-block pedestrian connections where block lengths exceed 200m
- Design attractive building and landscape interfaces at laneways and side streets to create a more welcoming bike and pedestrian network

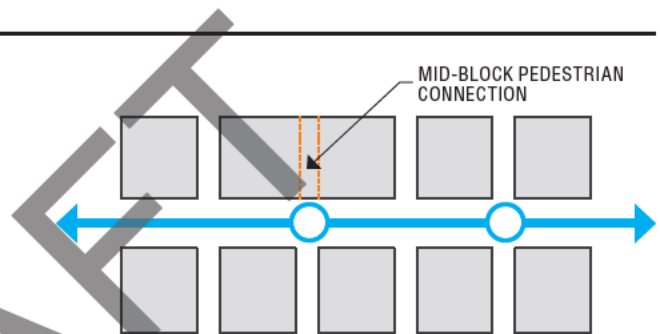


Figure 3 - Break up longer block lengths by providing mid-block pedestrian connections

Street Definition

INTENT: To site and design buildings to frame streets and other public open spaces

- Maintain an approximate building height to street right-of-way (ROW) ratio of 1:2 to ensure a comfortable pedestrian scale
- Minimize the distance buildings are setback from the street to create a sense of enclosure and pedestrian comfort. Setbacks will vary between residential and commercial ground floor uses as described in Section 3.
- Develop a consistent street wall of 3-6 stories (depending on ROW width) along transit corridors
- Step taller buildings back at upper levels by a minimum of 1.5m
- Where wide street right-of-ways are unavoidable, use street trees and boulevards to bring a pedestrian scale to the street

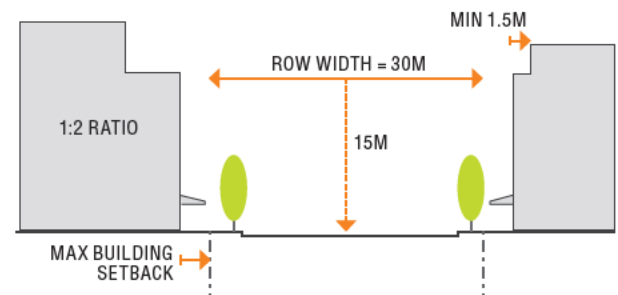


Figure 4 - Strong street definition is created by appropriate scale, minimal building setbacks and consistent street walls

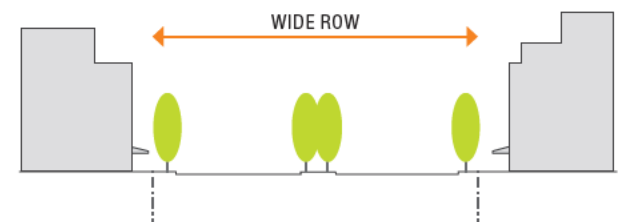


Figure 5 - Use trees, canopies and awnings to minimize the impact of wide street right-of-ways

Height + Massing

INTENT: To reduce the visual impact of larger development and transition sensitively to adjacent neighbourhoods

- Create a gradual transition in building height to existing single-family neighbourhoods
- Site and design buildings to minimize shading of plazas, pocket parks, play areas or private outdoor spaces
- Break up long building frontages by integrating courtyards and/or recessed areas
- Respond to topography by stepping down building forms to follow the slope where necessary
- Articulate building facades to minimize the visual impact of larger buildings
- Locate taller building forms along major corridors and at important corner sites

Active Frontages

INTENT: To create a welcoming and attractive building interface that adds to street vitality and interest

- Locate entrances, windows and balconies to overlook public streets, pathways and open spaces
- Provide ample glazing, particularly at the ground floor, to allow for sight lines into and out of the building
- Provide frequent ground-oriented entrances to residential and commercial buildings along major pedestrian routes
- Avoid blank walls (over 5m in length) adjacent to streets, parks, plazas etc. When blank walls are unavoidable, use landscape elements, wall murals, special lighting, canopies or horizontal trellises to minimize their visual impact
- Recess building entrances (while maintaining sight lines) to provide door swings, weather protection, and to emphasize building entrance

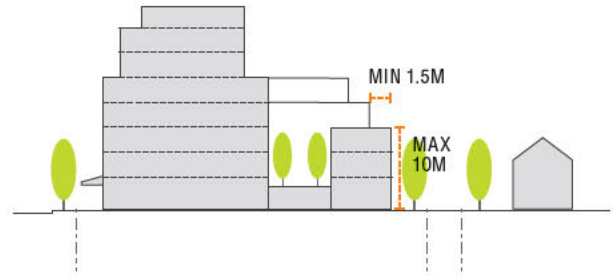


Figure 6 - Step new development back from the property line to ensure a maximum 3-storey interface with existing single family homes

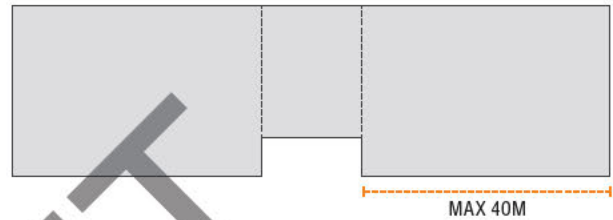


Figure 7 - Break up building frontages over 40m



Figure 8 - Articulate building facades and locate windows/balconies to provide overlook of public spaces



Figure 9 - Frequent entrances provide active frontages

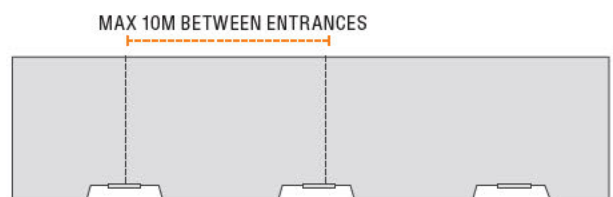


Figure 10 - Recessed entrances that maintain sightlines between entryway and the street

Sustainability

INTENT: To leverage transit-oriented development opportunities to support a broad range of sustainability goals related to energy, ecosystems and the urban heat island effect while creating high quality, livable urban environments

- Enhance habitat, biodiversity and ecosystem processes through use of landscaped areas (pocket parks, green roofs and private outdoor spaces) that include native plant selection
- Reduce demands on existing stormwater infrastructure by maximizing infiltration in landscaped areas, installing infiltration devices and incorporating rainwater storage tanks on development sites with limited infiltration opportunities
- Incorporate green roofs where appropriate to help absorb stormwater, improve thermal efficiency and provide additional amenity space for residents of higher density development
- Reduce demands on existing water infrastructure by installing water efficient fixtures and recycling waste water where possible (ie. reusing greywater for landscape irrigation)
- Use shading devices, passive solar energy strategies and efficient mechanical systems to mitigate building energy use, particularly for taller buildings that can not be shaded by adjacent plantings



Figure 11 - Green roof amenity space

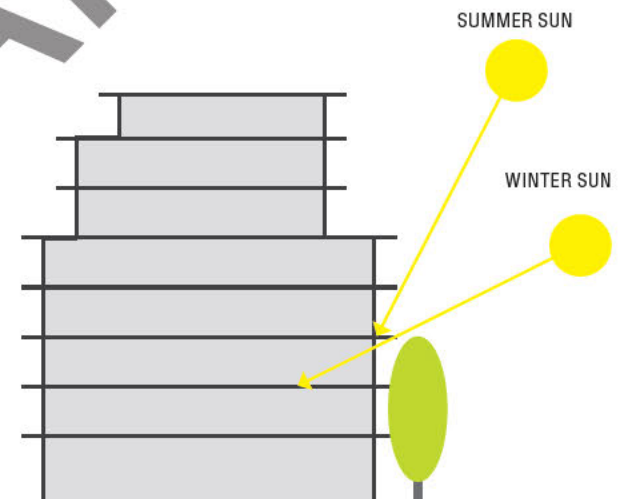


Figure 12 - Providing shading structures (balconies or overhangs) or devices to block the summer sun while letting in the winter sun, particularly on upper levels where landscape shading is not possible

Public Realm

INTENT: The public realm can be enhanced and expanded by private development. The intent of this section is to provide guidance for private development to create a vibrant and comfortable public realm designed for people

- Include canopies and awnings along commercial frontages to bring a pedestrian scale to the street
- Provide street furnishings and/or spill-out areas for indoor uses such as cafes, restaurants or bars
- Provide landscape elements such as street trees, planters, green walls and other natural features that complement the public streetscape
- Use materials and lighting to create a welcoming environment around the building, particularly at the building entrance
- Incorporate public art and other installations to enhance the public realm

Safety + Security

INTENT: To follow the principles of Crime Prevention Through Environmental Design (CPTED) to create safe and comfortable places for people to enjoy

- Orient buildings to ensure “eye on the street” with the placement of windows, balconies and street level uses that allows for casual surveillance of parks and open spaces
- Design entrances and exits so they are easily identifiable and clearly visible
- Design the built environment using materials and fittings that will hold up to heavy use by the public
- Define ownership and intended use through obvious design cues such as low fencing, benches and paving patterns/materials.
- Ensure building, parking area and surrounding public realm are designed to meet all universal access requirements



Figure 13 - Generous sidewalks can ‘split the property line’ with the expansion of sidewalk space onto private property



Figure 14 - Providing space for commercial uses to spill-out onto the sidewalk enhances street life

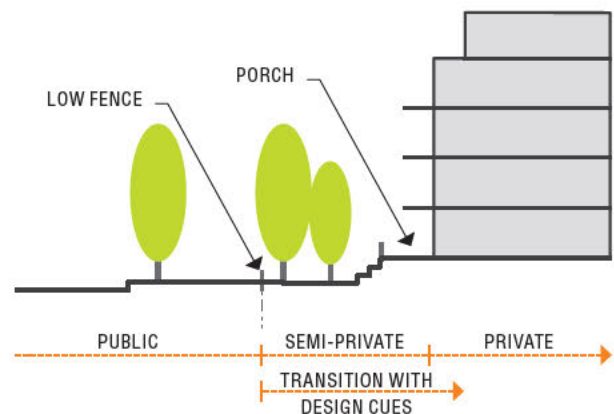


Figure 15 - Organize the site into a hierarchy of visually defined zones by using devices such as material changes, landscape features, grade changes, low fences/walls, or seating to delineate boundaries

Parking + Access

INTENT: To provide adequate servicing, vehicle access, and parking while minimizing negative impacts on the safety and attractiveness of the public realm.

- Primarily locate parking in TOD areas underground or in 'tuck-under' structures
- Ensure any off-street surface parking is located in the rear of the development
- Provide a landscape buffer/screen between any public sidewalk and off-street surface parking areas
- Incorporate planted areas, bioswales and/or trees to break up large surface parking areas
- Provide secure access for structured parking
- Provide centrally located, direct and highly visible pedestrian pathways connecting parking areas to main building entrances.
- Provide clear signage and visual lines of sight to parking and loading area entrances for pedestrians and drivers
- In general, vehicular access should be from the rear. Where there is no rear access (ie., a laneway) ensure that there is no more than one curb cut per block face.
- Architecturally integrate any vehicle entrance and its associated components (doorways, ramps) into the building so as to minimize their visual impact
- Ensure loading bays, recycling areas and garbage storage facilities are located away from public streets and screened through the use of landscaping, walls and buildings but not to create entrapment areas and hiding places
- Provide bicycle parking within a visible, active, secure, and well-lighted area convenient to primary building users



Figure 16 - Architecturally integrate underground parking entrances into the building design

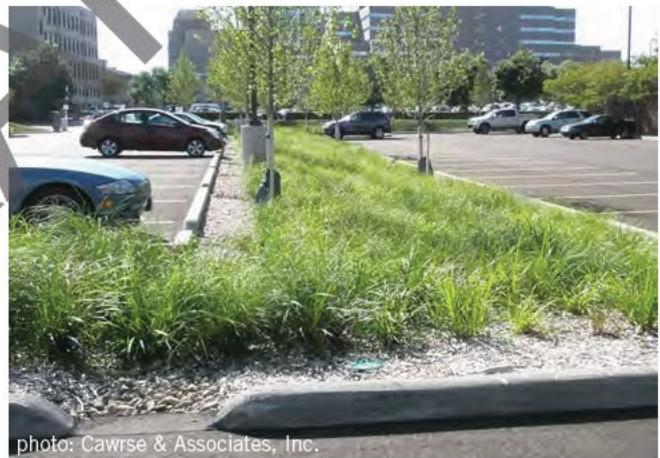


Figure 17 - Integrate landscaped areas into surface parking areas to break up paved areas and infiltrate stormwater onsite

Greenfield Development

The TOD guidelines primarily provide guidance on urban infill along major transit corridors, however, there are also opportunities for better transit-oriented greenfield developments in a more suburban context that orient themselves effectively around rapid transit. The guidelines below provide a high level framework for these developments. They can be read together with the more general building parameters in this section and the TOD typologies described in further detail in Section 4.

INTENT: To provide direction on best-practices for the development of master-planned, transit-oriented communities in a suburban context.

- **Make Transit the Heart of the Community:** Focus key destinations including pedestrian-oriented commercial, employment, and civic uses supported by mid- to high-density residential along the transit corridor.
- **Create a Highly Permeable Street Network:** Provide an interconnected network of streets and pathways to ensure easy access to transit. Avoid block lengths longer than 160m.
- **Design Streets for All Users:** Minimize curb to curb widths, reduce turning radii at intersections and extend the pedestrian realm (minimum of 4m including street tree boulevard) to create streets that can accommodate a wide range of users while creating a comfortable and safe environment for pedestrians.
- **Present a Friendly Face to the Street, Even Arterials:** Minimize building setbacks to no more than 4m and ensure main entrances are oriented towards the street rather than parking areas.

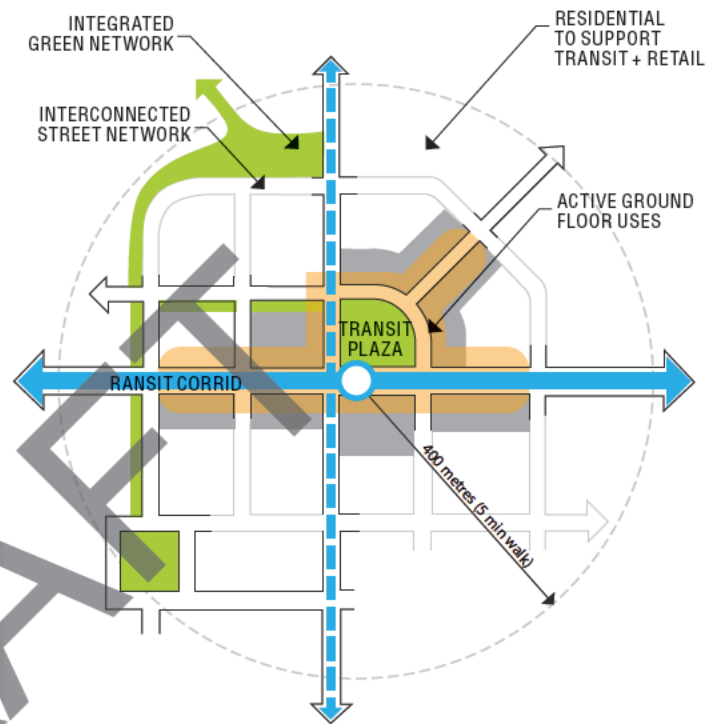
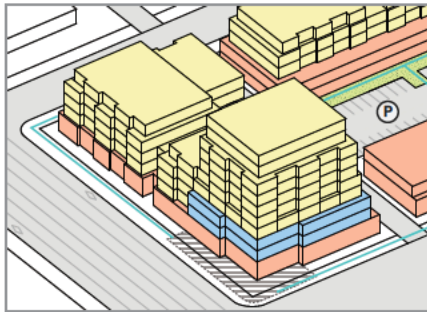


Figure 18 - Conceptual diagram of transit-oriented greenfield development

3.0 TOD Typologies

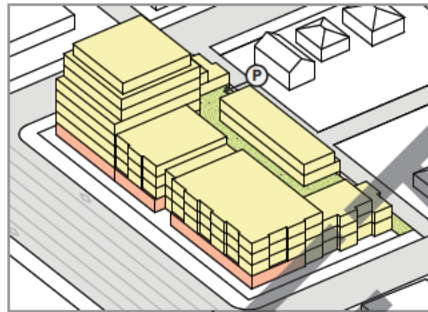
The Transit Oriented Development (TOD) Design Guidelines clearly illustrate how new development along the priority transit corridors will accommodate transit-supportive densities and integrate with the surrounding neighbourhood. This section provides an overview of the building parameters,

recommended site planning controls and specific guidance regarding the building massing and character of five typical development conditions in Saskatoon.



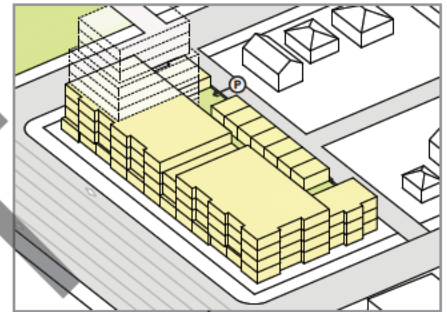
High Density Employment

- Excellent transit access
- Highly urban and/or light industrial
- High traffic volumes
- Large parcel size
- Mixed use with a focus on providing employment, retail and housing close to transit



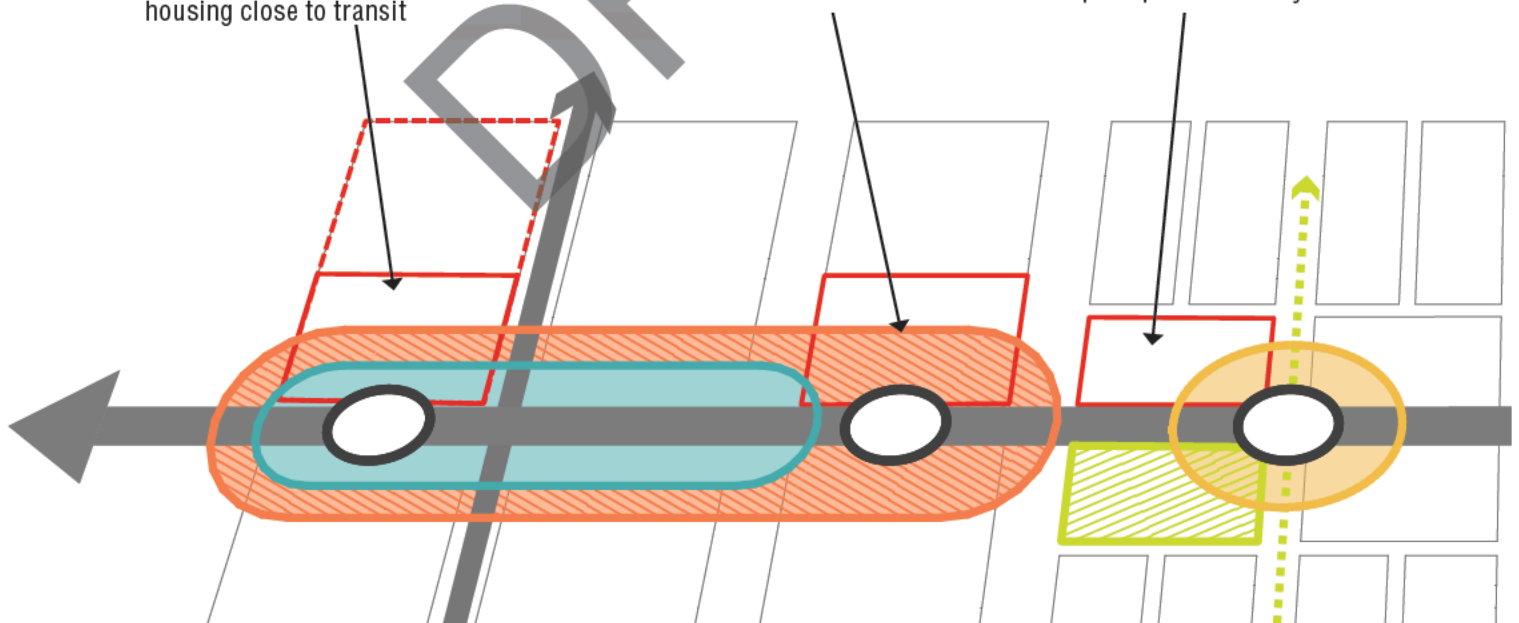
High Density Mixed Use



- Excellent transit access
- Urban, along an existing transit/commercial corridor
- Large parcel size
- Mixed use with a focus on providing housing and retail uses close to transit




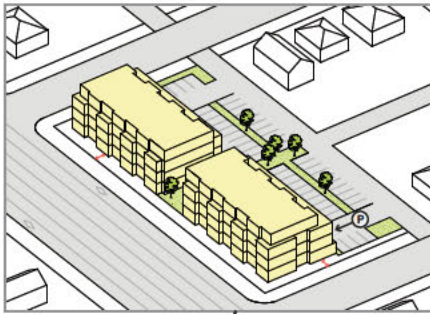
High Density Residential

- Excellent transit access
- Residential area adjacent to public amenity
- Medium parcel size
- Focus on housing with higher densities adjacent to the open space/public amenity



 HIGH DENSITY EMPLOYMENT
 HIGH DENSITY MIXED USE

 HIGH DENSITY RESIDENTIAL
 OPEN SPACE



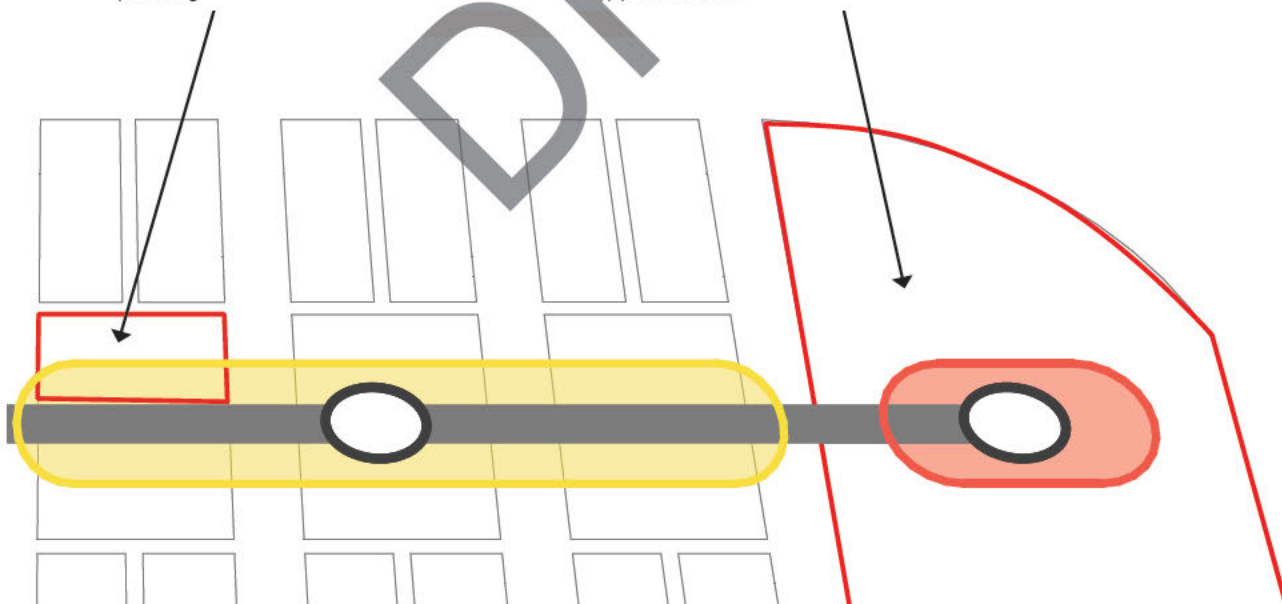
Medium Density Residential

- Good transit access
- Located along a priority transit corridor
- Medium parcel size
- Housing (mid to low rise development) with tuck-under parking



Commercial Retrof

- Excellent transit access
- Reurbanization of suburban commercial centre
- Large parcel size
- Mixed use with a focus on retail, residential and employment opportunities



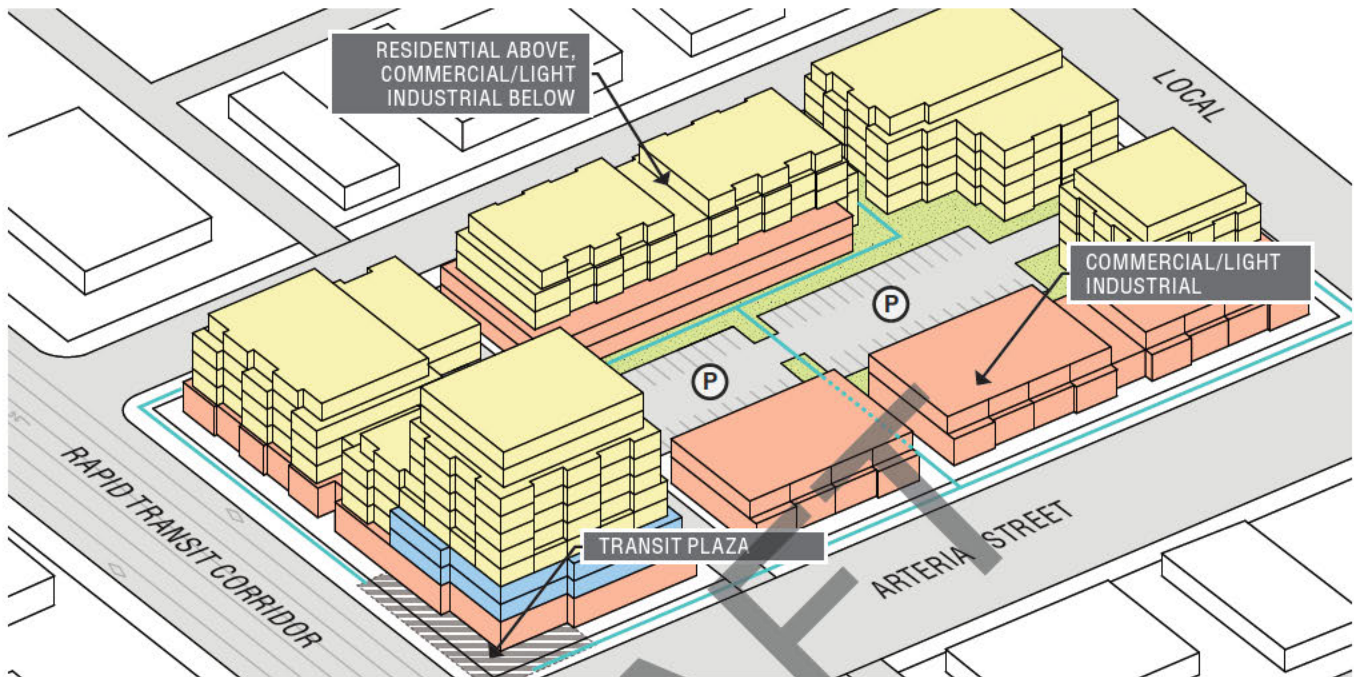
MEDIUM DENSITY RESIDENTIAL



COMMERCIAL CENTRE



TRANSIT STATION



3.1 High Density Employment

INTENT: To create compact, mixed-use developments with a focus on providing employment opportunities and high quality urban living along key transit-oriented corridors. Redevelopment of these sites should aim to preserve or incorporate light industrial uses to revitalize districts with a mix of employment type.

SITE DESCRIPTION

This typology is located along high traffic volume transit corridors adjacent to commercial and/or industrial lands within the central urban area. Typically these corridors have a strong commercial and retail focus and larger parcels for higher density developments.

KEY CONSIDERATIONS

- Incorporate commercial and light industrial into a mixed use employment node
- Mitigate effects of high traffic volume through streetscape improvements, new amenity spaces, and ground floor uses that are not negatively impacted by traffic
- Locate appropriate land uses adjacent to existing neighbourhoods and transition building heights to lower density development



SECTION A-A'

OFFICE	RESIDENTIAL
COMMERCIAL	PARKING

Figure 19 - Up to 12 storey mixed use development with employment, residential, light industrial, and commercial with surface and/or structured parking in behind



Figure 20 - Example of where the high density employment typology could be applied.

LAND USE

- Ensure compatible ground floor uses across adjacent streets, lanes and property lines
- Locate high intensity employment uses (office uses for example) and higher density residential uses adjacent to rapid transit
- Locate pedestrian-oriented commercial/retail uses along the rapid transit corridor
- Locate ground-oriented residential uses along lower traffic volume streets with residential character

NEIGHBOURHOOD INTERFACE

- Provide community amenities such as pocket parks, retail and services, and enhanced public realm for use by the existing neighbourhood
- On the lane, provide a minimum setback of 1.0m from property line adjacent to industrial uses with landscape buffer and step upper levels back a minimum of 1.5m
- Where new development faces existing residential areas, ensure residential uses or pedestrian-oriented commercial at ground level

BUILDING DESIGN

- Step upper level residential uses back from high traffic volume streets a minimum of 3.0m
- Articulate buildings to create more visual interest
- Provide weather protection and at least 3 clear glazing for ground floor commercial units fronting a public street
- Provide a range of unit types and configurations, ranging from studio apartments to 2-3 bedroom units
- Provide private rooftop gardens/amenity space on top of structured parking

ACCESS + PARKING

- Integrate structured parking and underground parking into new high density development
- If surface parking is required, locate it within the interior of the block
- Provide secure bicycle parking for residents and end of trip facilities for office users

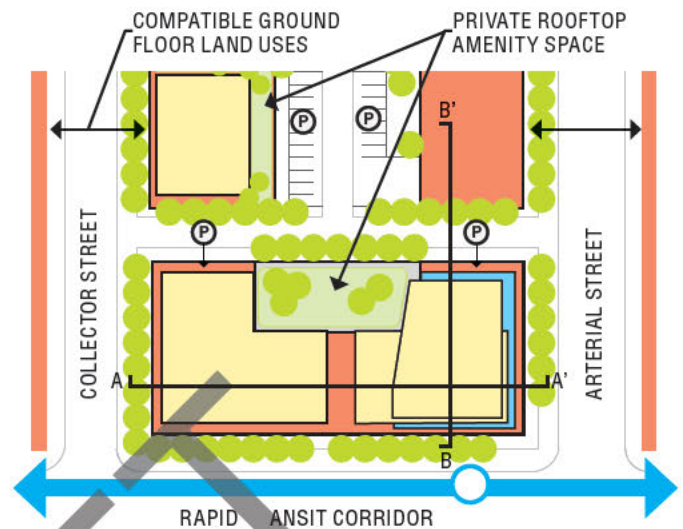
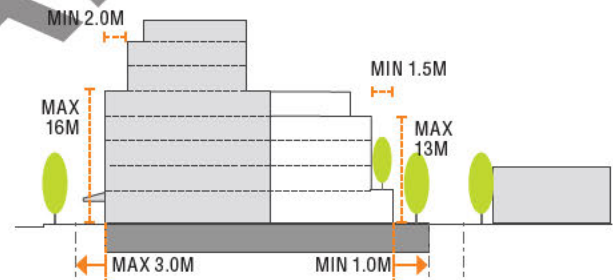


Figure 2 Compatible ground floor uses and private rooftop amenity spaces help to create more livable urban districts



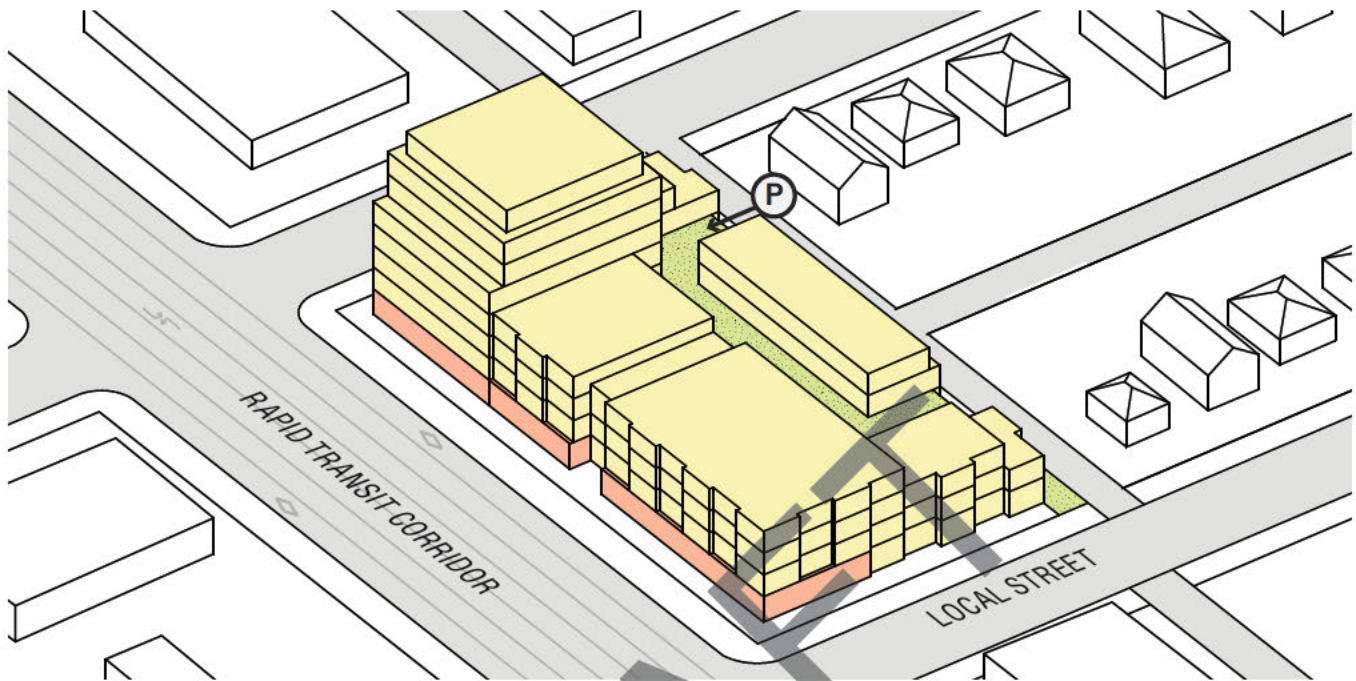
SECTION B-B'

Figure 22 - Interface between new development adjacent to the rapid transit corridor and light industrial



photo: Perkins+Will

Figure 23 - Light industrial integrated in a mixed use development



3.2 High Density Mixed Use

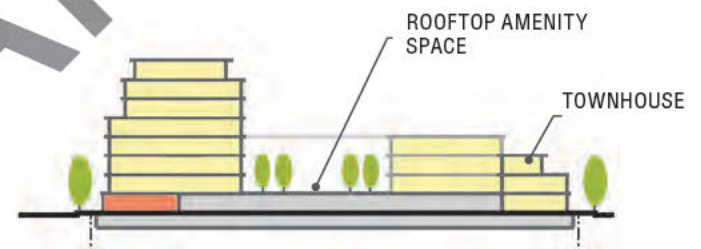
INTENT: To create compact, mixed use developments with a focus on providing housing options and a range of commercial uses along key transit-oriented corridors. Redevelopment of these sites should reflect local neighbourhood character and sensitively transition to adjacent residences.

SITE DESCRIPTION

This typology is located along high traffic volume transit corridors within the central urban area and interfaces with single or multi-family residential neighbourhoods. Typically these corridors have a strong commercial and retail focus and larger parcels for higher density developments.

KEY CONSIDERATIONS

- Maximize potential for local and regional serving commercial supported by residential
- Mitigate effects of high traffic volume through streetscape improvements, new amenity spaces, and ground floor uses that are not negatively impacted by traffic
- Locate appropriate land uses adjacent to existing neighbourhoods and transition building heights to lower density development



SECTION A-A'

COMMERCIAL RESIDENTIAL PARKING

Figure 24 - Up to 10 storey mixed use with residential, large and small format commercial at grade + 1.5-2.5 levels of structured parking.



Figure 25 - Example of where the high density mixed use typology could be applied.

LAND USE

- Locate commercial uses along the rapid transit corridor
- Interface with existing single family properties with townhouses or low-rise (max 4 storey) apartments
- Locate higher density residential and pedestrian-oriented retail along the rapid transit corridor
- Locate ground-oriented residential uses along lower traffic volume streets with residential character

NEIGHBOURHOOD INTERFACE

- Provide community amenities such as pocket parks, retail and services, and enhanced public realm for use by the existing neighbourhood
- On the lane, provide a minimum setback of 1.5m with landscape buffer and step upper levels back a minimum of 1.5m

BUILDING DESIGN

- Step upper level residential uses back from rapid transit corridors and high traffic volume streets a minimum of 2.0m
- Provide weather protection and at least 2/3 glazing for ground floor commercial units fronting public street
- Provide rooftop gardens/ amenity space green roof (accessible or non-accessible) on top of structured parking
- Buildings above the 8-10 storey typical typology may be considered (up to 12 storeys) with the provision of significant public amenities or green building features

ACCESS + PARKING

- Integrate structured parking and underground parking into new high density development
- If surface parking is required, locate it within the interior of the block
- Provide secure bicycle parking for residents and on-street bicycle parking within 10m of main entrances for visitors and the public

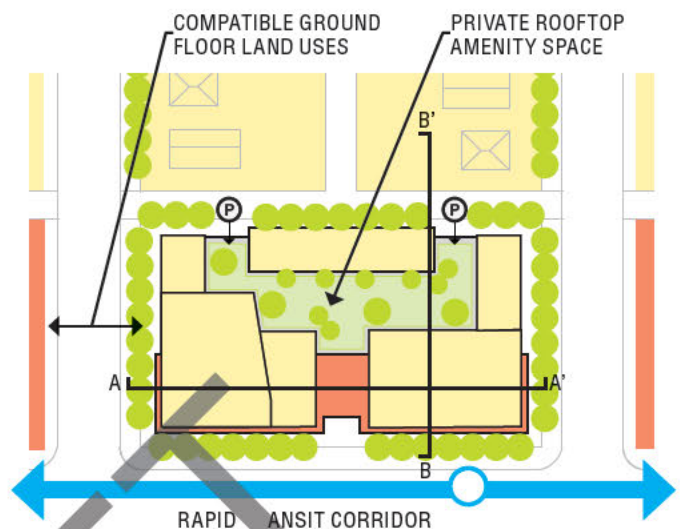
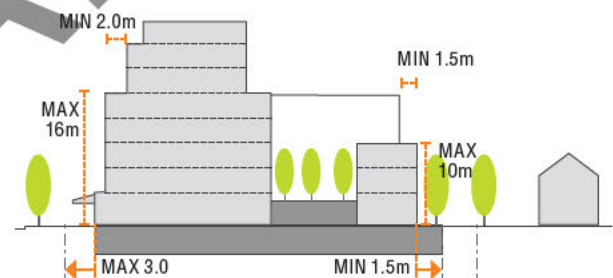


Figure 26 - Compatible ground floor uses and private rooftop amenity spaces help to create more livable urban districts

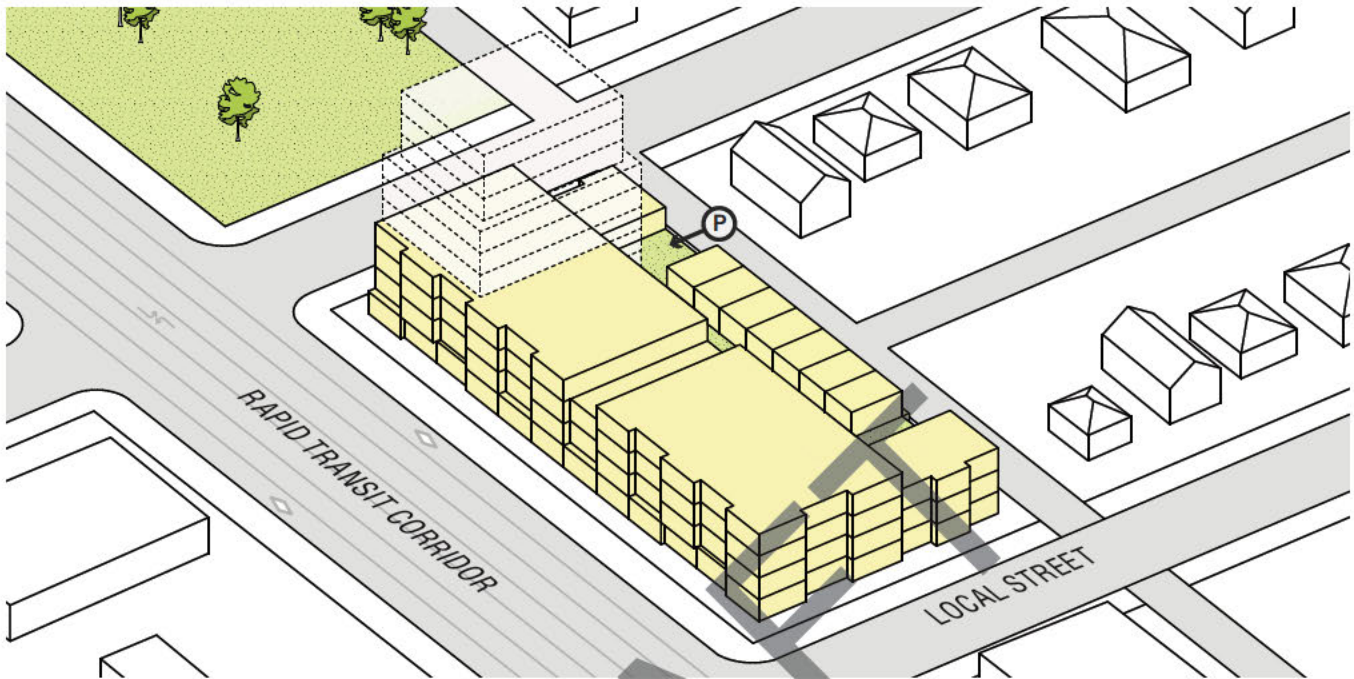


SECTION B-B'

Figure 27 - Interface requirements for new development adjacent to existing single family neighbourhoods



Figure 28 - Townhouses fronting the street with apartments above



3.3 High Density Residential

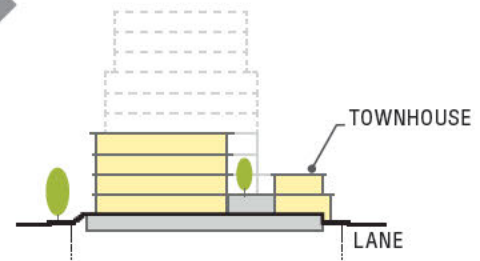
INTENT: To create high quality urban living that capitalizes on its proximity to rapid transit and nearby amenities such as parks or natural areas to attract new residents. Redevelopment of these sites should reflect local neighbourhood character and sensitively transition to adjacent residences.

SITE DESCRIPTION

This typology is situated along rapid transit corridors outside of existing commercial areas where traffic impacts may be less. Higher forms can be located adjacent to amenities such as parks, open spaces and civic or commercial uses provided they do not unduly shade these spaces.

KEY CONSIDERATIONS

- Bring more people closer to transit and amenities to create a vibrant transit-oriented neighbourhood
- Incorporate different dwelling unit types and a range of sizes
- Locate appropriate land uses adjacent to existing neighbourhoods and transition building heights to lower density development



SECTION A-A'

RESIDENTIAL PARKING

Figure 29 - Up to 10 storey residential tower with 4 storey podium and 2-3 storey townhouses, including 1 storey of underground and/or structured parking



Figure 30 - Example of where the high density residential typology could be applied.

LAND USE

- Locate higher building forms along the transit corridor and adjacent to (without unduly shading) neighbourhood amenities such as parks and open spaces
- Ensure ground oriented residential uses adjacent to any existing residential land uses including on the rear lane

NEIGHBOURHOOD INTERFACE

- On the rapid transit corridor, set back residential uses a maximum of 4.0m and step upper levels back a minimum of 2.0m
- On the lane provide a minimum setback of 1.0m with landscape buffer and step levels above 3 storeys back a minimum of 1.5m

BUILDING DESIGN

- Raise residential units at the ground level a maximum of 1.0m to provide vertical separation between the public realm and private outdoor spaces
- Provide outdoor private space such as balconies and porches facing public streets and laneways
- Provide rooftop gardens/amenity space on top of structured parking
- Buildings above the 8-10 storey typical typology may be considered (up to 12 storeys) with the provision of significant public amenities or green building features

ACCESS + PARKING

- Consider underground parking that is partially raised to reduce construction costs associated with excavation
- Provide secure bicycle parking for residents and on-street bicycle parking within 10m of main lobbies for visitors
- Provide ample lighting along street face and at all building and parking entrances

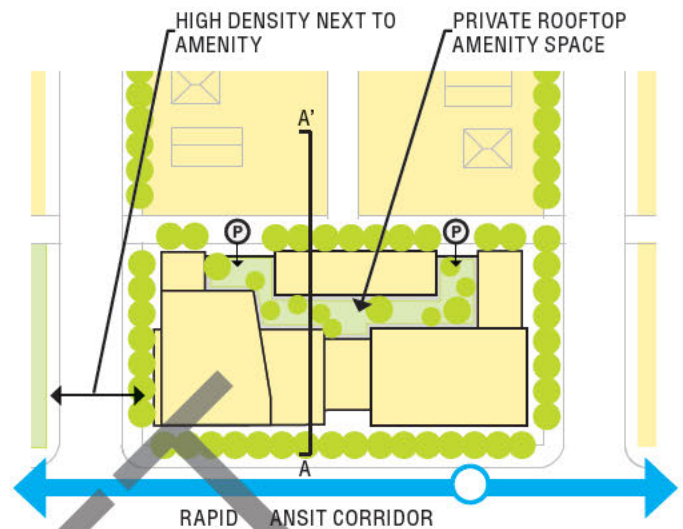
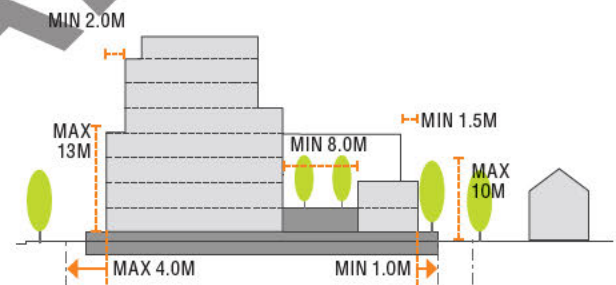


Figure 31 Compatible ground floor uses and private rooftop amenity spaces help to create more livable urban districts



SECTION A-A'

Figure 32 - Interface requirements for new development adjacent to existing residential

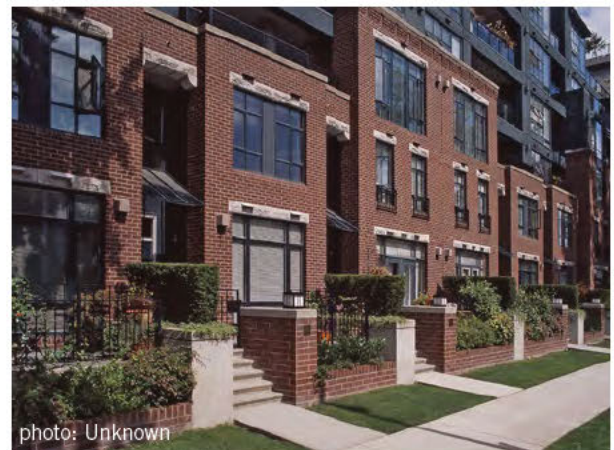
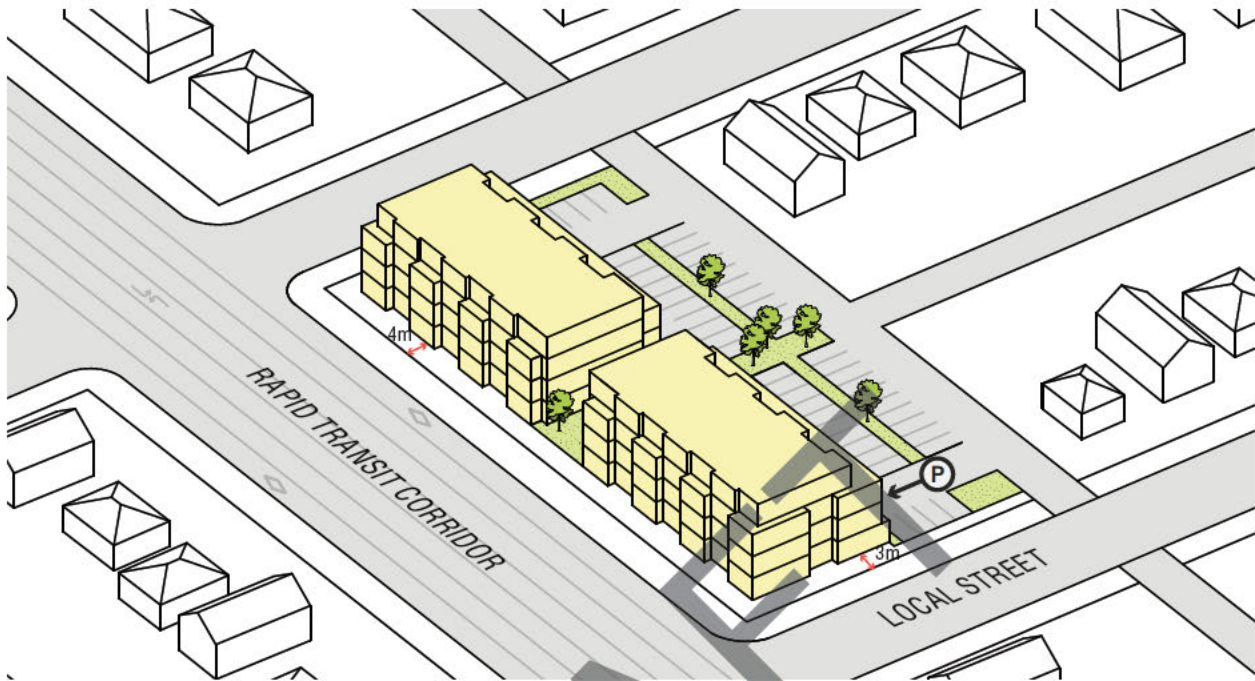


photo: Unknown

Figure 33 - Ground floor units are raised and have a more generous setback than commercial units



3.4 Medium Density Residential

INTENT: Create a medium density residential development along a priority transit corridor that connects residents to amenities and transit

SITE DESCRIPTION

This typology can be located along high - medium volume arterials with access to rapid transit. It should be located within a 5 minute walk of basic commercial amenities and typically would interface with single or multi-family residential.

KEY CONSIDERATIONS

- Provide medium density residential development within walking distance of rapid transit
- Allow for development that requires lower up-front capital costs for developers
- Minimize the visual and environmental impact of surface and tuck-under parking

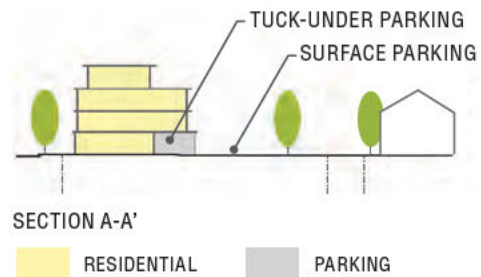


Figure 34 - 4 storey wood frame residential with a mix of tuck-under and surface parking



Figure 35 - Example of where the medium density residential typology could be applied.

LAND USE

- Ensure ground-oriented residential units facing public streets and adjacent residential land uses

NEIGHBOURHOOD INTERFACE

- On a rapid transit corridor, set back residential uses a maximum of 4.0m to maintain a strong streetwall and allow for private outdoor space such as patios
- On local and collector streets, set back residential uses a maximum of 3.0m
- Integrate public or semi-public greenspaces to connect existing neighbourhood to the rapid transit corridor
- Provide a landscape buffer between surface parking areas and adjacent residential buildings

BUILDING DESIGN

- Consider raising residential units at ground level a maximum of 1.0m to provide vertical separation between the public realm and private outdoor spaces
- Provide outdoor private spaces such as balconies and porches facing public streets and laneways

ACCESS + PARKING

- Provide tuck-under parking along the rear of the building
- Where possible, maximize the efficiency of surface parking by accessing a row of parking off the lane
- Access surface parking areas from the rear
- Provide landscaped areas within surface parking areas to:
 - allow for pedestrian circulation,
 - break up the visual impact of parking areas, and
 - provide ecosystem services such as habitat, shading and stormwater infiltration
- Provide secure bike parking for residents and sidewalk parking within 10 m of the main building entrance

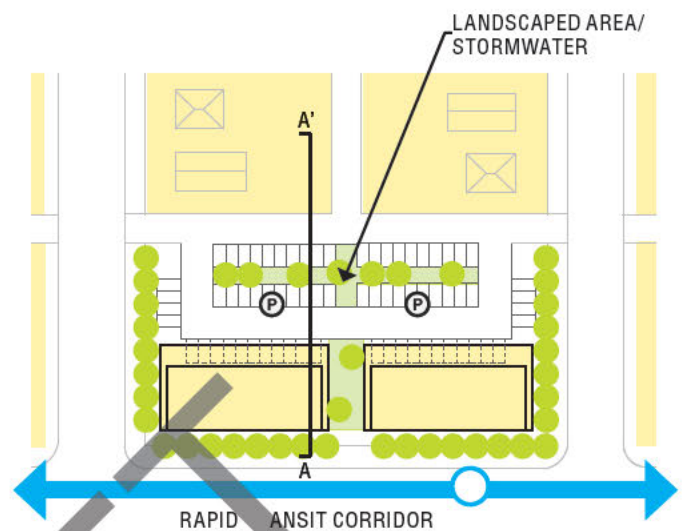
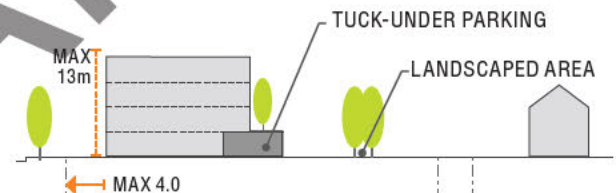


Figure 37 - Compatible ground floor uses and private rooftop mobility spaces help to create more livable urban districts



SECTION A-A'

Figure 37 - Interface requirements for new development adjacent to existing residential

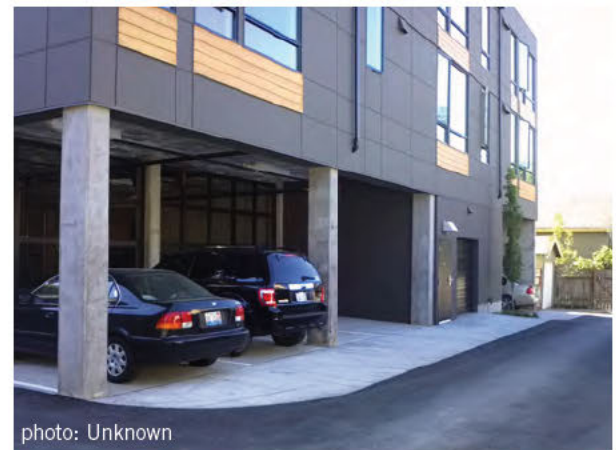


Figure 38 - Tuck-under parking is less expensive to build than fully underground parking

PHASE 1

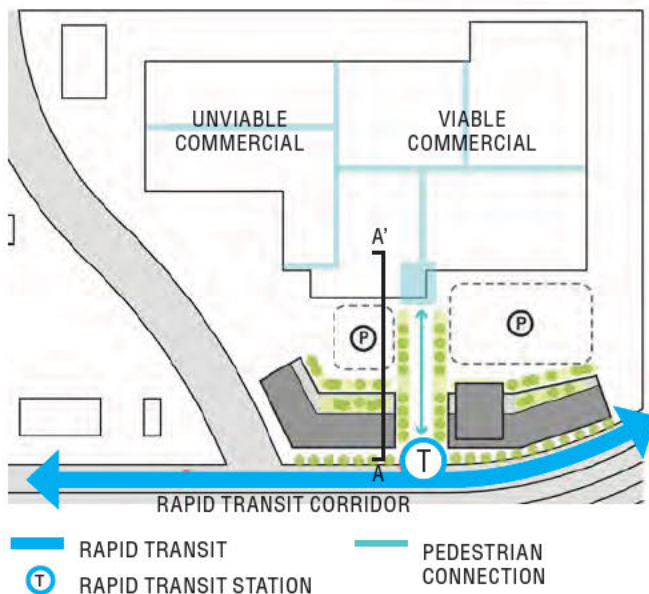


Figure 39 - Redevelopment of under-utilized surface parking area with street-fronting mixed use and strong pedestrian connection to existing mall site

PHASE 2

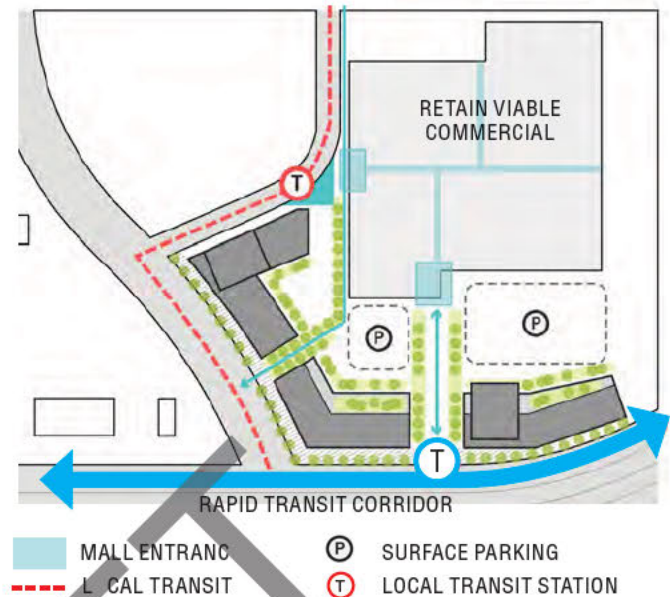


Figure 40 - Demolition of under-utilized mall structure and introduction of new street/pedestrian network

3.5 Mall Retrofit

INTENT: To transition existing single-use, auto-oriented retail centres into mixed use, walkable retail nodes that integrate residential, commercial and employment opportunities in a new rapid transit hub. Redevelopment of these sites should introduce a finer-grained street network and provide strong pedestrian connection to adjacent neighbourhoods.

SITE DESCRIPTION

This typology is located within single use commercial districts along a rapid transit corridor. It is characterized by 1-2 storey commercial buildings, large surface parking lots and proximity to high traffic volume arterials.

KEY CONSIDERATIONS

- Retrofit auto-oriented commercial areas into highly livable urban districts that are compact, mixed use, and transit-oriented
- Enhance retail opportunities by creating a unique sense of place with an attractive mixed use character
- Create strong multi-modal connections within the site as well as to surrounding neighbourhoods and transit

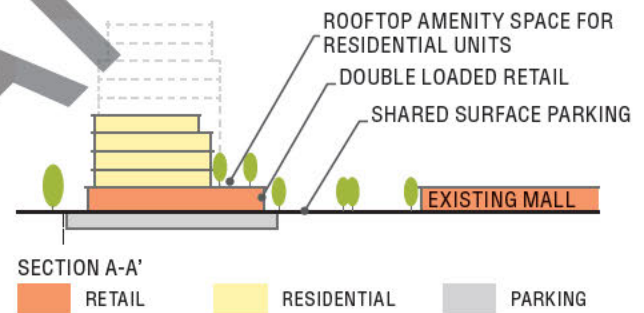


Figure 41 - Mall retrofit: illustrative section

PRINCIPLES FOR MALL RETROFIT

1. Phase development to take advantage of successful retail as a key catalyst while redeveloping less viable retail and under-utilized parking areas
2. Break up super blocks to include a more permeable street and pedestrian network
3. Introduce structured parking into later phases that include residential
4. Provide high quality amenity space for residences either at grade or within rooftop amenity spaces
5. Create active 'transit plazas' adjacent to local and regional transit stations

PHASE 3

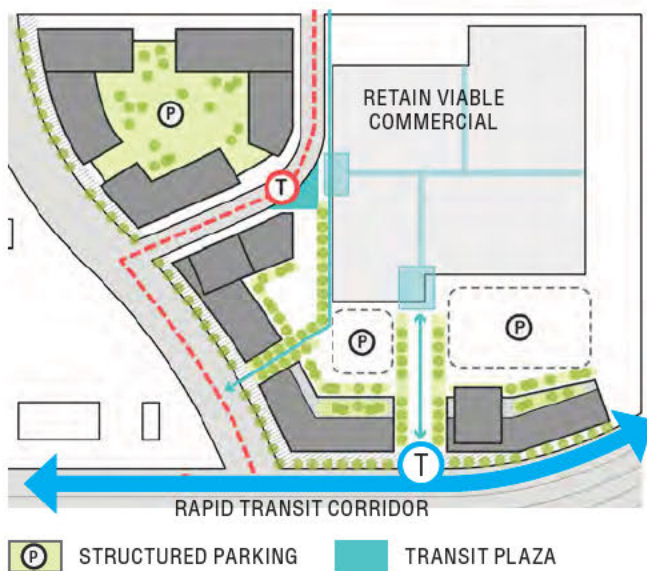


Figure 42 - Completion of mixed use transit hub anchored by large format commercial

LAND USE

- Provide a mix of uses to complement the existing retail including a range of housing types, employment uses and community amenities

NEIGHBOURHOOD INTERFACE

- Improve access to retail and public community amenities such as parks, play areas, and services such as daycare, community centres and gathering spaces
- Locate higher density development within 200m of rapid transit
- Create a low- to mid-rise residential interface adjacent to single family neighbourhoods.
- Provide multiple connections through the site for cyclists and pedestrians that link to rapid transit
- Create vibrant public spaces that attract local residents onto the site
- Ensure a maximum building setback of 4.0m from the rapid transit corridor and 3.0m from internal or local streets

BUILDING DESIGN

- Provide commercial space at grade to interface with public realm and the existing mall, and locate residential units above with rooftop amenity space



Figure 43 - Integration of public plaza with retail/residential



Figure 44 - New streets can be highly pedestrianized to create unique high-street shopping experience that will attract shoppers

- Provide transparency at the ground floor and clearly defined entrances for both commercial and residential uses
- Articulate buildings to create more visual interest and break up large masses
- Provide weather protection along building faces adjacent to public realm

ACCESS + PARKING

- Provide underground or structured parking to replace surface parking displaced by new development in later phases
- Allow for on-street parking along internal, local and/or collector streets
- Provide secure bike parking for residents within 10 m of the main entrance for each building

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