NEW WESTMINSTER

Site Design Guidelines
TRANSPORTATION

V01 - 2022

The following guidelines were created to assist development applicants with site design for parking, loading and servicing, vehicle site access, and on-site multi-modal circulation components in residential, mixed-use, and commercial developments. This document should be used with, and not in place of all applicable B.C. Building Codes and City Bylaws.

Objectives of these guidelines are to:

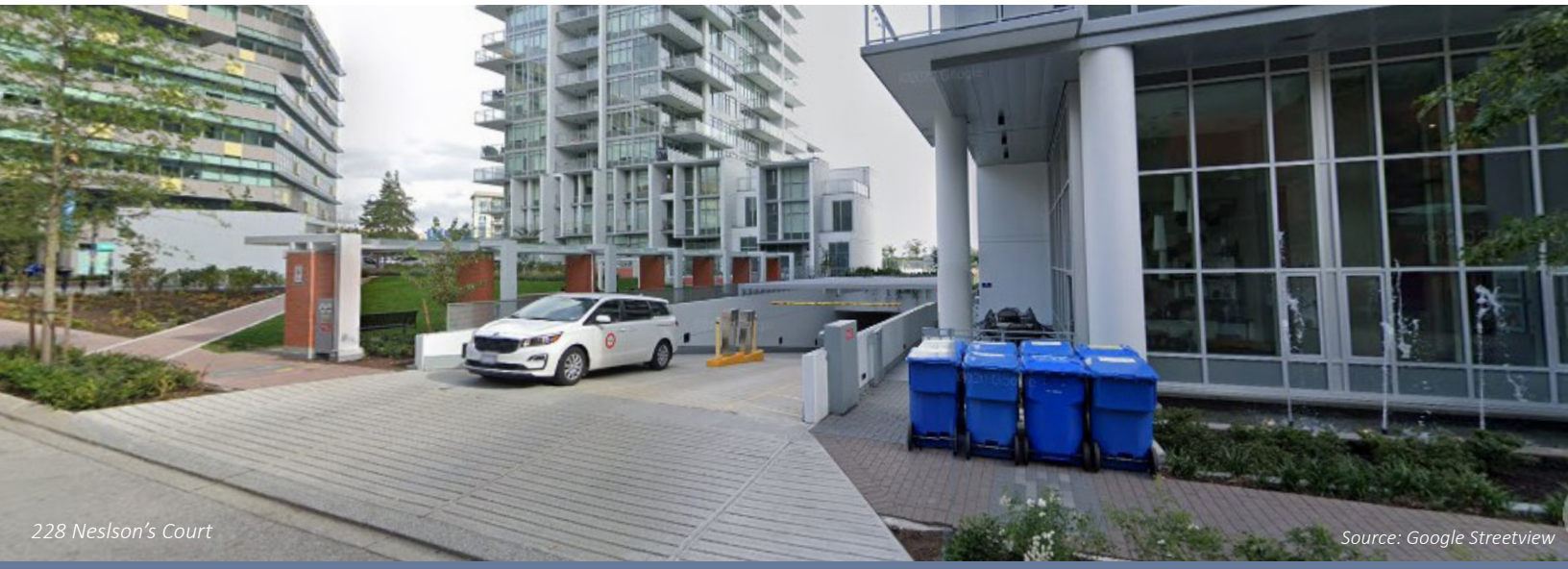
1. Ensure required transportation provisions are identified during the initial stages of design and that the City 's design specifications are used,
2. Ensure that all transportation related components can be accommodated on the site including components unique to New Westminster, and
3. Raise awareness of common issues seen for transportation items in the site design and functionality that could be addressed early in the review.

Review of access, circulation and design of transportation provisions uses a multi-modal lens and encompasses all methods people use for their everyday needs.

Overarching considerations for functional site plans encompass the following:

- ✓ Site access and sight lines
- ✓ Parking and manoeuverability
- ✓ Loading, servicing needs, and solid waste operations
- ✓ On-site circulation and accessibility for people walking and cycling in addition to driving
- ✓ Impacts to neighbouring properties, roadways, bikeways and servicing

The ultimate goal is to identify and minimize the impact of vehicle movements to and from the site, and address functionality of the site and building design for intended uses.



228 Neslson's Court

Source: Google Streetview

Development Application Site Plan Checklist

Development application submissions should clearly identify the following transportation components.

ELEMENT	CHECK LIST
Project Statistics and Zoning Bylaw Provisions:	❑ Proposed and required provisions by use: Vehicle parking, bicycle parking, accessible parking, loading, solid waste facilities, etc.
Site Context Map:	❑ Location of primary access points for all modes of travel. ❑ Location of access points of adjacent properties (e.g., driveways, parkade entrances, loading areas, parking pads). ❑ Width of adjacent lane or street where access is taken. ❑ Distance to nearby intersections (if applicable).
Site Access:	❑ Location and dimensions of site access, landing areas including width, lengths and slopes. ❑ Sight lines/view corridors where there may be obstructions.
Parking and circulations:	❑ Location for all parking spaces (i.e., vehicle, bicycle, accessible, van accessible , car share, visitor, etc.). ❑ Location and dimension of scooter storage area (if applicable). ❑ Dimensions of all parking spaces, drive aisle, and passageways (e.g., to bicycle parking, scooter storage areas, entrances). ❑ Slopes of accessible parking stalls. ❑ Vertical clearances for parking, drive aisles. ❑ Clearance from walls, obstructions and pillars. ❑ Each stall must be numbered and labeled by use (e.g., visitor, car share, shared). ❑ Slopes, widths, lengths , design elevations of interior ramps including transitions and at break points of the ramp(s).
Loading and Servicing:	❑ Location and dimension of all loading, solid waste facilities, temporary staging areas, maneuvering etc. ❑ Largest vehicle accessing loading area, solid waste facility (See Solid Waste Facility Guidelines). ❑ Throat width for loading spaces and turning radii. ❑ Area for deployment of ramps, opening doors, loading/unloading functions. ❑ Vehicle access routes to solid waste facility loading area. ❑ Location of fire access routes/lanes.
Internal Circulation:	❑ Widths of pedestrian walkways/ pathways/ corridors including identification of slopes greater than 5%. ❑ On-site cycling routes to long term and short term parking including identification of slopes greater than 5%. ❑ Accessible paths of travel to common property, solid waste facilities, etc.

All drawing measurements must be in metric.

The information outlined in the checklist is essential to better understand building and site functionality. Transportation may request additional information to confirm the technical components of a design, or clarify maneuverability, clearances, capacity, as it pertains to site or building component.

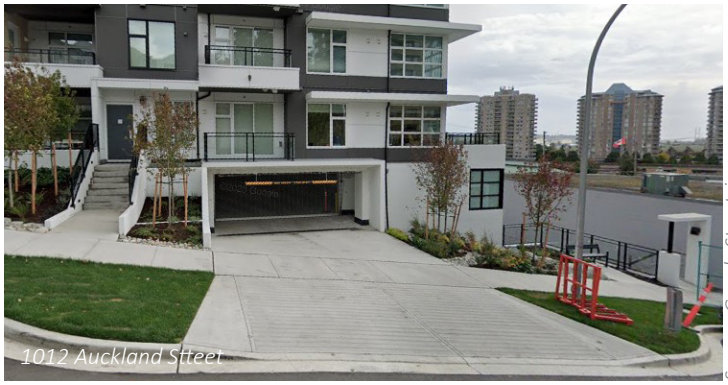
A Transportation review may be required for some applications. This requirement will be conveyed to the applicant early in the review process. Study parameters will be outlined in a Terms of Reference provided by the City.

Site Design Guidelines

The following sections outline common issues frequently identified during application review. Considerations and guidelines are highlighted to help ensure items are incorporated at the initial site and building design phase.

These guidelines and considerations are compiled from the: Zoning Bylaw, Subdivision and Development Control Bylaw, Street and Traffic Bylaw, as well as general best practices within the Transportation field. The information provided do not constitute all requirements for a development. As such, these guidelines should be used with, and not in place of all applicable B.C. Building Codes and City Bylaws.

For more information on related policies see the Policies and Resources section at the end of this document.



Source: Google Streetview

1 Multi-modal Lens

New Westminster's *Master Transportation Plan* (2015) prioritizes sustainable modes of transportation. The *Seven Bold Steps for Climate Action*, adopted by Council in 2019, accelerated targets for mode split, with "60% of all trips within the City will be by sustainable modes of transportation (walk, transit, bike, multi-occupant shared) by 2030".

Land use development and thoughtful site design helps to support a shift from private vehicles for everyday trips by ensuring amenities and facilities to use other modes are available, functional, intuitive, and fully accessible.

ELEMENT	CONSIDERATION
Barriers to accessibility	Strategic Plan for Sustainable Transportation key direction: » Use a disability justice lens to recognize and mitigate barrier to universal access and mobility. Identification of barriers to accessibility is important to ensuring the functionality of a site/ building design to meet everyday needs of all users.
Multi-modal network evaluation	» The evaluation is multi-modal and includes how people will travel to and from the surrounding pedestrian, cycling, and transit networks in addition to the road network. » The evaluation should identify gaps, quality and accessibility of connections and routes to access the networks for all modes of travel.
Mode split and sustainable modes of travel	» Downtown, Uptown, and Sapperton neighbourhoods are dense urban centres that are walkable and well served by transit (i.e., SkyTrain and/or Frequent Transit Network routes). These neighbourhoods have higher mode split for sustainable modes of travel. More walkable/ transit oriented communities are planned as population grows.

2 Parking Design and Functionality

Parking design greatly impacts how people access, safely move through and navigate these areas. Each site is different and design will vary depending on local context. Parking requirements and specifications are outlined in the Zoning Bylaw sections 140 Off-Street Parking, 145 Accessible Off-Street Parking and 150 Off-Street Bicycle Parking. The table below outlines some guidelines that help support functionality.

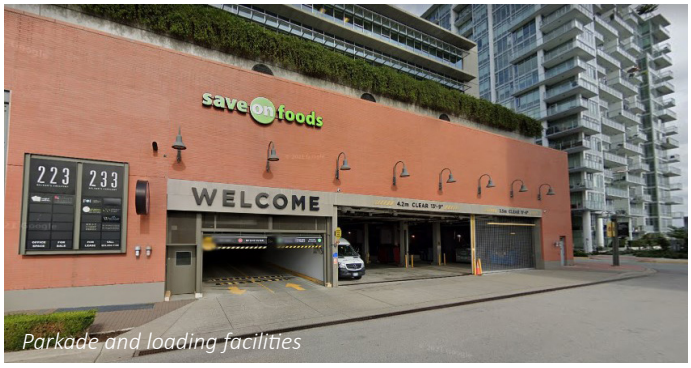


Parking off the lane

ELEMENT	DESIGN GUIDELINES
Parking provision	» Meet the needs of the type of development, users, and functions (e.g., pick-up/drop-off) without shifting demand to the on-street supply.
Bicycle parking location and design	» Located to minimize distances and changes in grade from site accesses to facilities. » Should be easy to access with a bicycle and by people with various levels of physical ability. » Configured for manoeuvring bicycles of various sizes.
Accessible parking	» Located to minimize total distance traveled from building accesses » Meet slope requirements and accessible routes of travel. » Configured to allow flexibility of use (i.e., loading/unloading from all sides of a vehicle) and safely support those with mobility devices.
Scooter storage area	» Conveniently located, fully accessible and requires minimal effort for people with limited mobility or disability to access and use. » Sufficiently secure to prevent theft or damage from unauthorized entry or the elements.
Drive aisle widths and manoeuvring space	» Varied, depending on angle and width of parking space. » Configured so drivers can properly manoeuvre vehicles in and out of parking spots. » Configured so vehicles can turn around as needed and/or required to back up long distances.
Design clearances	» Configured to ensure no portions of columns/structural supports protrude into parking spaces. » An additional 0.3 m width for parking spaces adjacent to walls/structures/fences, that are higher than 0.3 m, is provided.
Sightlines	» Configured to address sightlines and vehicle movements around corner/structures and at parkade entrances.
Ramp slopes, transitions, landings	» Meet requirements for driveway and parkade entrances including required landings and slopes. (See 3 Site Context and Site Access) » Configured so transitions on ramps, driveways prevent vehicles from bottoming-out.
Routes of Travel	» Accessible routes of travel are identified. » Parking spaces do not double as pedestrian routes of travel. » Doors and building accesses meet minimum clear widths for pedestrians and are not blocked by parking spaces.

3 Site Context and Site Access

Access points, where people access a property via vehicle, bicycle or walking, are potential conflict points. Good sightlines and visibility at entrances minimizes the potential impact of vehicle movements to and from a site and promotes safe interactions for vulnerable users.



Parkade and loading facilities

Source: Google Streetview

ELEMENT	GUIDELINES
Clearances	» Site accesses meet minimum clearances between driveways, to surround infrastructure and utilities, trees, etc. » Configured to align with current industry standards for distances to intersections.
Sightlines and visibility	» Configured to ensure clear sight lines to pedestrians, cyclist and vehicles at site accesses where vehicle ingress/egress occurs (e.g, driveways, parking spaces off lanes, loading areas, solid waste operation areas, etc.).
Parkade entrance view corridor	» Configured with appropriate view corridors to ensure adequate stopping sight distance to avoid conflicts and designed to prevent visual obstructions (e.g., plantings).
Driveways	» Have a landing area at the entrance (3.0 m long, max grade of 5%) to allow a vehicle to come to a complete stop atback of sidewalk/behind property line. » Configured to provide reasonable clearances on ramp grade transitions so vehicles will not “hang-up” or “bottom-out”.
Driveway crossings	» Have a level crossing across driveway. » Configured so the sidewalks across driveways avoids a crossfall of more than 2%.
Manoeuvring area	» Configured to provide sufficient manoeuvring area for service vehicles to safely operate without conflict to vulnerable site users. (See 4 Loading and Servicing, and *Solid Waste Facility Design Guidelines)*
Corner truncations	» Confirm corner truncation requirements for sightlines and infrastructure on corner sites or sites where lanes intersect road.
Parking off the lane (e.g., townhouses, infill, laneway house)	» Ensure setbacks are provided to meet drive aisle requirements to access parking spaces located off of lanes.

4 Loading and Servicing

Loading and servicing functions can add complexity to site design due to the increased space needed to accommodate turning movements of large, oversized vehicles and space to complete operations. To ensure functionality, loading and solid waste and recycling facilities need to be appropriately accommodated at the initial site design stage.



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Source: Google Streetview

ELEMENT	GUIDELINES
Intended uses, design vehicles	» Configured to accommodate largest vehicle using space for function (e.g. commercial loading, residential moving, solid waste, recycling, jitney truck): - Passenger vehicles (from compact to full-size vans and pick-up trucks), Light trucks[1] and/or Heavy trucks[2]. - Residential moving vehicles typically fall in light or heavy categories with various lengths[3]. » SU9 preferred design vehicle for analysis.
Loading space design	» Configured that ensure vehicles can park completely in the loading space. » Configure that operations do not block access to the site, parking spaces, or pedestrian and cycling routes of travel.
Loading and unloading functions	» Configured with sufficient space to complete operations (e.g., loading, servicing bins/carts). » Configured with the ability to doors and deploy ramps and lift gates[4] without obstructing other modes of travel.
Solid waste bins and operations	» Include on-site temporary staging area to store bins on collection day. See *Solid Waste Facility Design Guidelines*. » Solid waste bins/carts do not block driveways, sidewalks, bike facilities or parking stalls.
Manoeuvring area	» Configured with sufficient manoeuvring space for large vehicle to complete turning movements into and out of loading areas and the site. » Configured to reduce complex turning movements, causing delays on adjacent roadways, or potentially damage property or vehicles. » Configured such that service vehicles are not required to reverse onto a public road. (See Solid Waste Facility Design Guidelines). » Include Swept Path/ turning path review to confirm movements.
Conflicts and impacts	» Configured to minimize conflicts and impacts to pedestrian and cycling movements, vehicles stoppages, delays on adjacent roadways, blockages of on-street parking/loading, etc. » Configured to reduce conflict between operation needs (e.g., time of day, operation duration, turning movements, blockages) associated with loading and waste management function and parkade access.
Swept analysis/ turning path review	» Revise site design to address issues flagged in swept analysis and turning path review. » Identify and/or review options to address issues and impacts to surrounding networks (e.g., on-street parking).

1 GVW < 20,000 kg with single or two axles and can include panel vans, box trucks, courier and delivery vehicles
2 GVW > 20,000 kg with three or more axles (e.g., Tractor and trailer, waste, garbage and recycling)
3 A 17 ft moving truck has an approximate vehicle length of 24 ft
4 Deck heights for delivery, service and moving trucks range from 2.5 ft to 5 ft off the ground. Ramps from the rear or side of the vehicles, and/or lift gates are typically used to load or unload the vehicles where a loading dock is not provided. Ramp length depends on the size of vehicles, (e.g., 15/16 ft moving truck with 10 to 12 ft ramp).

5 Internal Circulation and Accessibility

Thoughtful design can eliminate accessibility barriers and issues that reduce functionality and safety for all users.

On-site circulation should accommodate how people move to and through the site, for all modes of travel, and should ensure routes are intuitive and functional for intended users.

The external (off-site) transportation network should not be adversely impacted by any off-site challenges (e.g., parking space layout, poorly functioning on-site intersections).

ELEMENT	CONSIDERATION
Anticipated needs and users	» All primary pedestrian routes (e.g., access to parking spots, garbage, primary doors) are to be accommodated on-site and accessible. » All on-site road and drive aisle facilities, pedestrian and cycling travel pathways should be designed to accommodate projected pedestrian, cycling, private vehicles, loading and servicing operational demand with minimal impacts to the city public right of way.
Clear widths on pedestrian and cycling routes	» Meet or exceed minimum clear widths for pedestrian and cycling routes of travel. » Configured to allow people passing in opposing directions, enable to manoeuvre mobility devices and/or bicycles with ease.
Distances traveled	» Conveniently located and configured to minimize distances traveled by people with limited mobility or disability.
Surface treatments	» Surface treatment should minimize vibrations for those using wheelchairs and mobility devices. » Designated walking routes/spaces in parking structures should be identifiable.

City of New Westminster Transportation Policies and Resources

TRANSPORTATION RELATED BYLAWS
(newwestcity.ca/bylaws)

Zoning Bylaw No. 6680, 2001

Sec. #140 Off-Street Parking
Sec. #145 Accessible Off-Street Parking
Sec. #150 Off-Street Bicycle Parking
Sec. #160 Off-Street Loading
Sec. #190 General Regulations

Street and Traffic Bylaw No. 7664, 2015

Sec. #6.31 to #6.36 Vehicle Access and Driveway Crossings

Solid Waste Regulation Bylaw 7634, 2014

Subdivision and Development Control Bylaw No. 7142, 2007 – Schedule "B" Design Criteria

Sec. 7 Transportation
Sec. 8 Roadworks System

(newwestcity.ca > Planning, Building & Development > Building & Property Improvements > Subdivision Process > Resources on Subdivision)

TRANSPORTATION POLICIES
(newwestcity.ca/transportation)

Master Transportation Plan
(newwestcity.ca/mtp)

Neighbourhood Transportation Plans
(newwestcity.ca/transportation-plans)

ADDITIONAL RESOURCES

Solid Waste Facility Design Guidelines for RESIDENTIAL

CONTACT
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