

MODELLING GROWTH TO 500,000 IN DOWNTOWN SASKATOON



Introduction

This report presents a conceptual projection of population, jobs, and built form in the Downtown and “North Downtown” (current Central Industrial neighbourhood) at a civic population of 500,000 in support of decision-making for the proposed Bus Rapid Transit (BRT) routes. The projection is presented as two scenarios based on which Avenue is chosen by City Council for dedicated BRT lanes (i.e. 3rd Avenue scenario vs. 1st Avenue scenario).

The projection has the following targets:

- Population growth of the Downtown neighbourhood from 3,334 to 15,000 as identified in the City Centre Plan.
- Population growth of the Central Industrial neighbourhood (“North Downtown”) from approximately 100 to 7,600 as identified in the draft North Downtown Master Plan (not approved by City Council).
- Appropriate growth of job numbers to continue supporting the Downtown’s role as a primary location for employment, retail, and other commercial activity.

Assumptions

The projection is necessarily based on several technical assumptions:

- Average persons per dwelling unit: 1.3 (current figure for Downtown).
- Gross dwelling unit area: 90 m² / 970 sq. ft. (typical for average Downtown apartment buildings).

- Average gross floor area per job:
 - o Retail/service jobs: 33 m² / 350 sq. ft. per employee (typical);
 - o Office jobs: 23 m² / 250 sq. ft. per employee (typical).

- Maximum building height used: 76 metres (standard in place for the B6 – Downtown Commercial zoning district).

- Approximately 2 hectares / 5 acres of vacant land (100 block of Pacific Avenue) reserved for development of a future arena, as per the November 19, 2018 resolution of City Council.

- Development projects currently under construction (e.g. River Landing Parcel YY, River Quarry on 4th) included as accurately as possible.

- Land chosen for future development based on the following decision hierarchy:
 1. land vacancy;
 2. proximity to the BRT route on either 3rd Avenue or 1st Avenue;
 3. a combination of factors such as underutilization, past development proposals, nearby activity and uses, market trends, and other assumptions.

- All future buildings projected (aside from those already under construction) are considered to be mixed-use (i.e. retail/service, office and residential integrated). This is done primarily for ease of modelling rather than realism. It is assumed that, in reality, some buildings will be mixed-use and some will be single-use, but that the overall floor area dedicated to different uses across the study area would be effectively the same for the purposes of this model.
 - o 76% of modelled floor area is residential;
 - o 14% of modelled floor area is retail/service;
 - o 10% of modelled floor area is office.

Projection

It is important to make clear that no long-range growth projection can be considered an accurate forecast of the future, particularly within an urban district as diverse and unpredictable as Downtown. The model presented here is only one possible scenario among near-infinite possibilities.

Population and job counts are presented as being captured within BRT station walksheds of 400 metres and 600 metres (representing a five- to seven-minute walk for the average person).

The numbers of residents and jobs captured in this projection under each scenario are presented in Table 1 below. The coloured bars behind each number visually represent their portion of the total numbers (either existing or projected) for the entire Downtown.

		3rd Avenue scenario:		1st Avenue scenario:	
		Existing	Projected	Existing	Projected
Population	400 m walk	2,876	13,242	2,531	11,681
	600 m walk	3,334	15,000	3,250	14,652
	Total area	3,334	15,000	3,334	15,000
Jobs	400 m walk	17,502	27,549	13,041	20,937
	600 m walk	18,889	30,558	18,043	28,931
	Total area	18,889	30,558	18,889	30,558

Table 1: Existing and projected Downtown population and jobs within walksheds of BRT stations

As is evident in Table 1, the performance of the 3rd Avenue scenario in terms of capturing future residents and jobs is slightly greater than the 1st Avenue scenario, but the scenarios are ultimately quite similar. It is worth noting that the 600 metre walkshed of 3rd Avenue effectively captures the entire Downtown, while the 1st Avenue scenario misses a portion of the eastern Downtown, most significantly with the 400 metre walkshed.

See Figures 1 and 2 for a map of the 3rd Avenue and 1st Avenue walksheds, respectively. A model of the potential built form of the Downtown under each scenario is also presented in Figures 3 and 4.

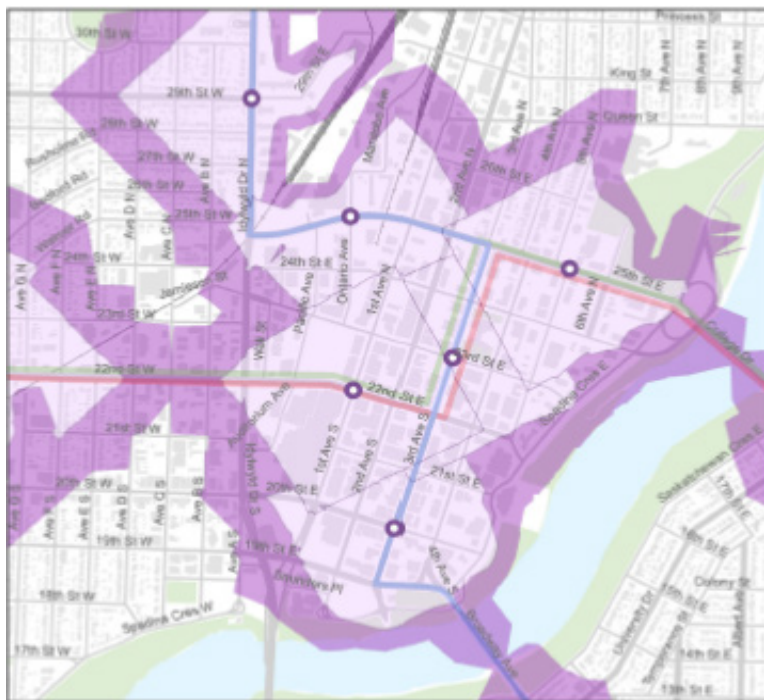


Figure 1: 3rd Avenue walksheds within Downtown, showing greater overall coverage of the CBD

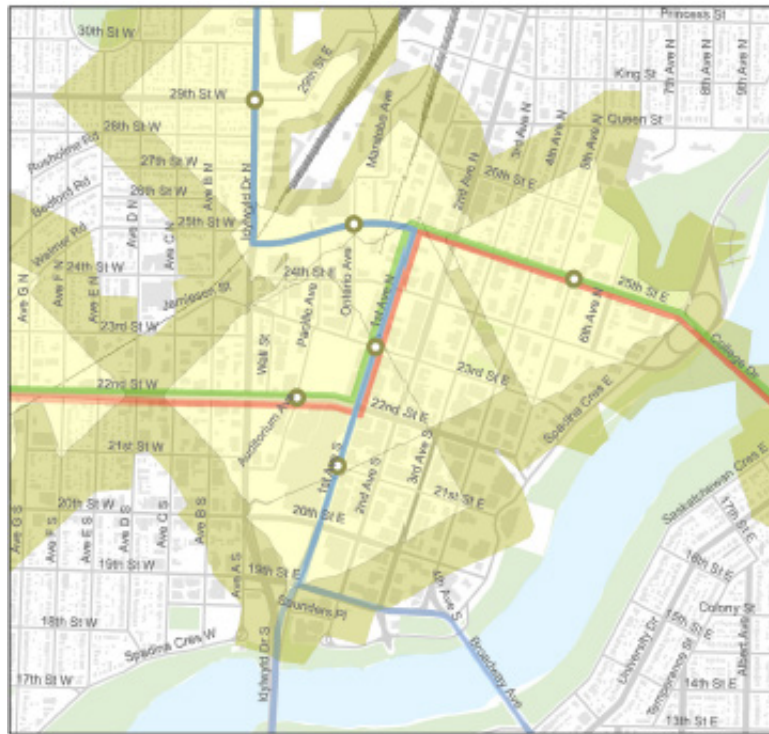


Figure 2: 1st Avenue walksheds within Downtown, showing slightly reduced coverage of the CBD

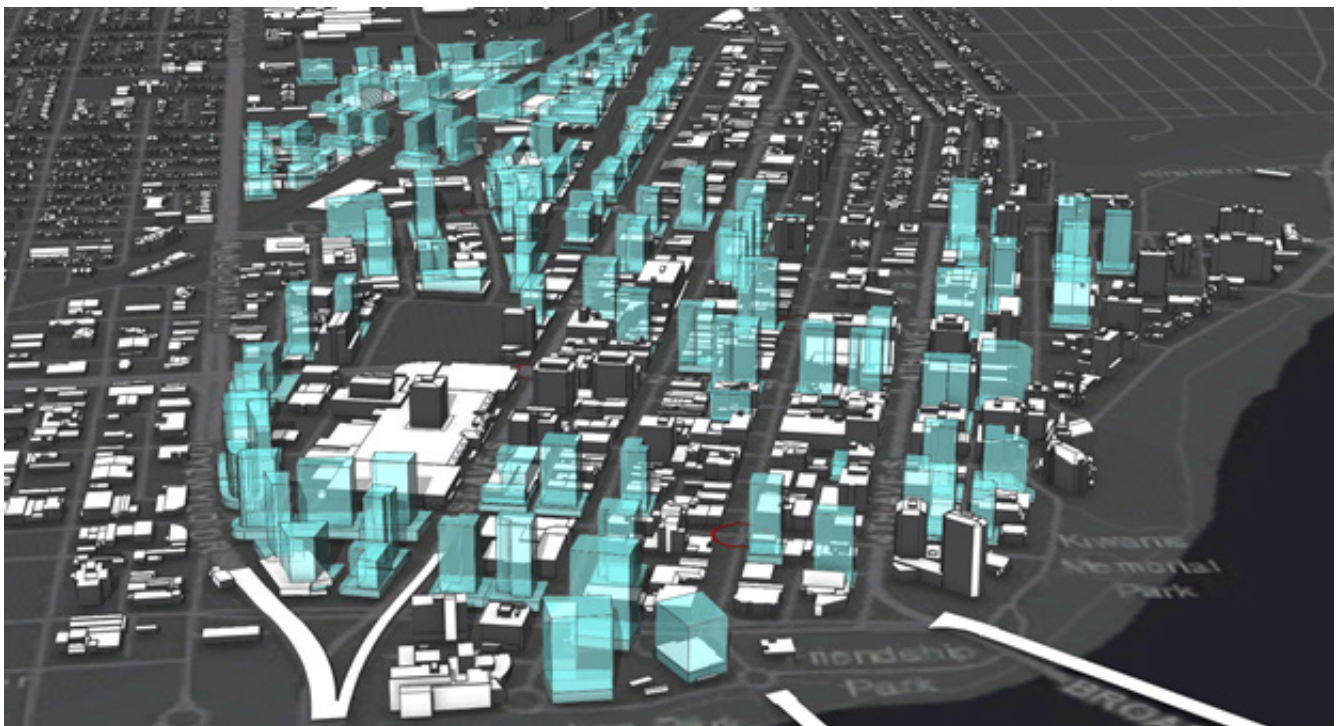


Figure 3: Perspective view of Downtown potential built form under 3rd Avenue scenario (looking north)

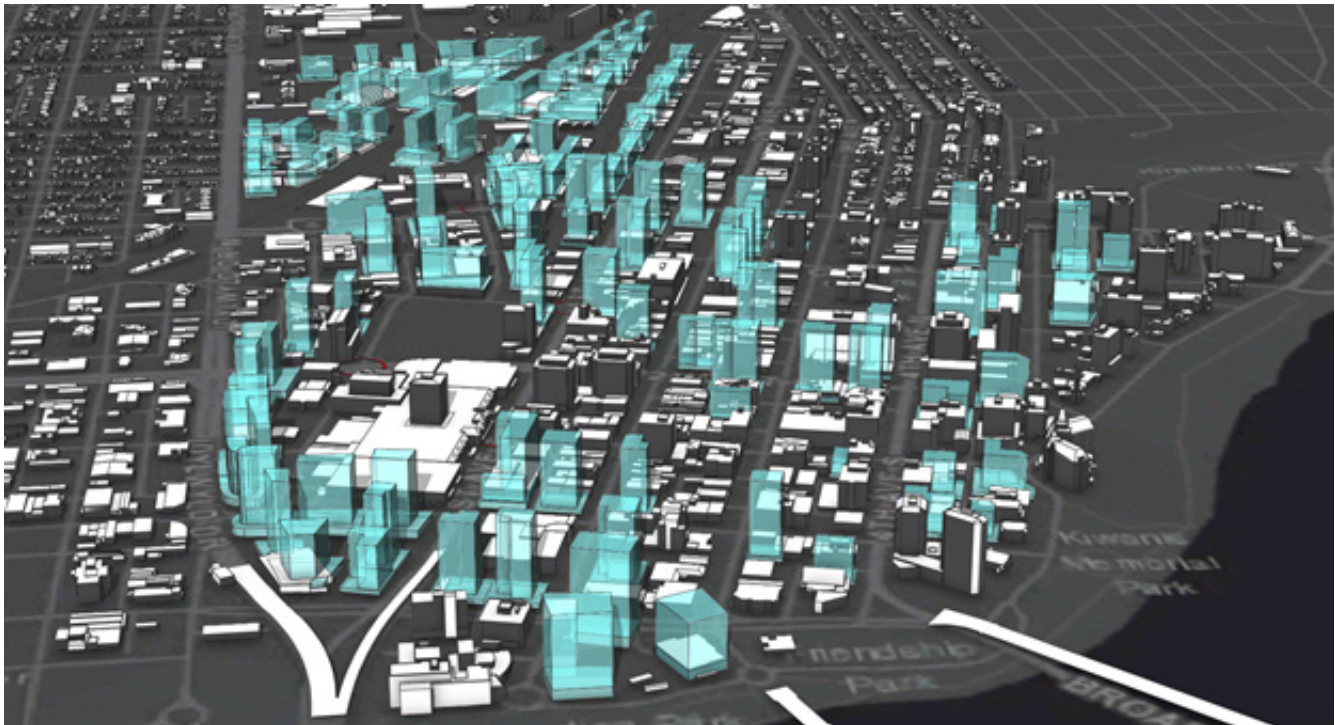


Figure 4: Perspective view of Downtown potential built form under 1st Avenue scenario (looking north)

The built form potential between the 3rd Avenue and 1st Avenue scenarios does not differ greatly. This is due to the constraints of available redevelopment land and building height combined with the need to achieve a targeted population of 15,000. In reality, gradual redevelopment over time as the city grows to half a million will likely occur on other properties not anticipated in this modelling exercise.

The existing and projected numbers for the Central Industrial neighbourhood / North Downtown as laid out in the draft North Downtown Master Plan are shown in Table 2. The coloured bars again represent each number's portion of the total.

The differences between the 3rd Avenue and 1st Avenue scenarios do not affect the walksheds for the North Downtown, as this area is entirely captured by BRT stations that are in the same location under each scenario (the Ontario Avenue, 29th Street, and 33rd Street stations).

		Central Industrial / North Downtown:	
		Existing	Projected
Population	400 m walk	100	3,750
	600 m walk	100	5,903
	Total area	100	7,600
Jobs*	400 m walk	2,034	3,774
	600 m walk	2,116	4,189
	Total area	2,145	4,470

Table 2: Existing and projected North Downtown population and jobs within walksheds of BRT stations

* Existing jobs in the Central Industrial neighbourhood were either retained or eliminated from the projection based on whether their associated property or facility was included or excluded in the draft North Downtown Master Plan (e.g. City Yards excluded, but a hotel on Idylwyld Dr included).

The built form for the North Downtown (seen in the background of Figures 3 and 4) was taken from the renderings shown in the draft North Downtown Master Plan.

Summary

This projection sought to illustrate the potential population and job growth of Downtown Saskatoon at a civic population of 500,000, based on two different Bus Rapid Transit scenarios.

The major takeaways from this model are that the 3rd Avenue scenario is shown to capture both existing and projected growth slightly better than the 1st Avenue scenario, and that the Central Industrial / North Downtown is unaffected (in terms of BRT station walksheds) by which Avenue is chosen for BRT.

Information not covered by this projection—aside from the myriad alternate possibilities of Downtown development—include development of lands just outside the Downtown (such as within Riversdale, Caswell Hill, City Park, and Nutana), the alternative scenarios for BRT routing within Nutana (Broadway Ave dedicated lanes vs. Broadway Ave mixed-traffic vs. Idylwyld Drive), and the secondary possibility of BRT routing through City Park (along 2nd Avenue north of 25th Street, connecting to Warman Road at 33rd Street).