

Table 5: Design Criteria

Table 5: Design Criteria	Value
Element	Value
Design Speed	80 km/hr west of Central Avenue,
	60 km/hr east of Central Avenue,
	60 km/hr along Central Ave
Desired Posted Speed	70 km/hr west of Central Avenue,
	50 km/hr east of Central Avenue,
	50 km/hr along Central Ave
Vertical Curb & Gutter	200mm
Separate Sidewalk	1.5m wide both sides of arterial road,
	No sidewalk provided on north side of river
	crossing
Separate Bikeway	2.0m wide, both sides
Access Management	No driveways, on-street parking permitted
Street-oriented Development	Frontage encouraged east of Central
	Avenue
Design Vehicle	COS Transit Bus
Control Vehicle	WB-20
	Not intended to be a truck route
Maximum Bridge Grade	3.0%
Driving lanes	3.6m
Crossfall	2.5%
Super-elevation	Remove crown west of Central Avenue,
	None east of Central Avenue
Minimum centreline radius curve	400m
Perimeter Highway Offset	Approximately 450m
Concept bridge abutments	Maximum 8.0m
McOrmond Drive	4-lane cross section, wide ROW
Central Ave. – Wanuskewin Rd.	
McOrmond Drive	4-lane cross section
Central Ave. – Fedoruk Dr.	
Central Avenue	4-lane cross section
McOrmond Dr. – Fedoruk Dr.	
North Commuter Bridge	4-lane cross section
(River Crossing)	Raised centre median
	1.0m left and right outside shoulders
	2.0m bikeways, both sides
	1.5m sidewalk, south side only



10. Recommendations

The North Commuter Bridge will link the Marquis Industrial Area with the University Heights area, providing relief to the existing Circle Drive Bridge, and will function as an arterial bridge, operating similar to the existing University and Broadway Bridges. It is not intended to function as a designated truck route, nor as a freeway.

- The preferred alignment for the North Commuter Bridge river crossing extends
 Marquis Drive across the South Saskatchewan River and connects to the
 extension of McOrmond Drive at Fedoruk Drive.
- The North Commuter Bridge should be constructed initially as a four-lane bridge;
 the foundations and piers should be designed to accommodate a possible
 expansion to six-lanes in the future, if needed.
- McOrmond Drive between the river crossing and Central Avenue should be constructed initially as a four-lane arterial roadway, with a wide right-of-way to permit the possible future expansion to six-lanes in the future, if needed.
- McOrmond Drive through the Northeast Swale should be constructed as a narrow arterial roadway with special considerations for reducing the impact on wildlife and the natural resources along the crossing through the swale.
- McOrmond Drive between Central Avenue and Fedoruk Drive should be constructed as a four-lane arterial roadway. Because of the residential and commercial development along the roadway, very effective access management requirements will be necessary to maintain the utility of the roadway.
- Central Avenue between McOrmond Drive and Fedoruk Drive should be constructed as a four-lane arterial roadway, access management will be important to maintain the utility of the roadway.
- All arterial roads should initially have a posted speed limit of 60 km/hr, and as
 development proceeds along the roads, the posted speed limit should be
 reduced to 50 km/hr. Through the Northeast Swale, the posted speed limit
 should remain at 50 km/hr.
- If required, staged arterial roads can be provided. The center median with street lighting is required, 1 driving lane and shoulder will be necessary on each side.

