

North Saskatoon Network Planning Study

Introduction

- The City of Saskatoon is planning future arterial road and expressway connections to the provincial highway system.
- Study will review if road connections should be interchanges or at-grade intersections.
- The future arterial road and expressway transportation network is a key component of Saskatoon's Transportation Strategy

Goals

- Improve roadway access and connectivity to landowners and businesses in the area.
- Transportation network is consistent with Official Community Plan and Saskatoon Freeway alignment.
- Traffic flow throughout the city is safe and optimal.
- Public funds are used efficiently and effectively in alignment with City expectations.

North Saskatoon Network Planning Study: Process

Confirm Future Land Use Plan

Develop Transportation Network Scenarios

Develop Evaluation Criteria

Identify Preferred Scenario

Identify Short-Term Improvements

Where we are
in the process

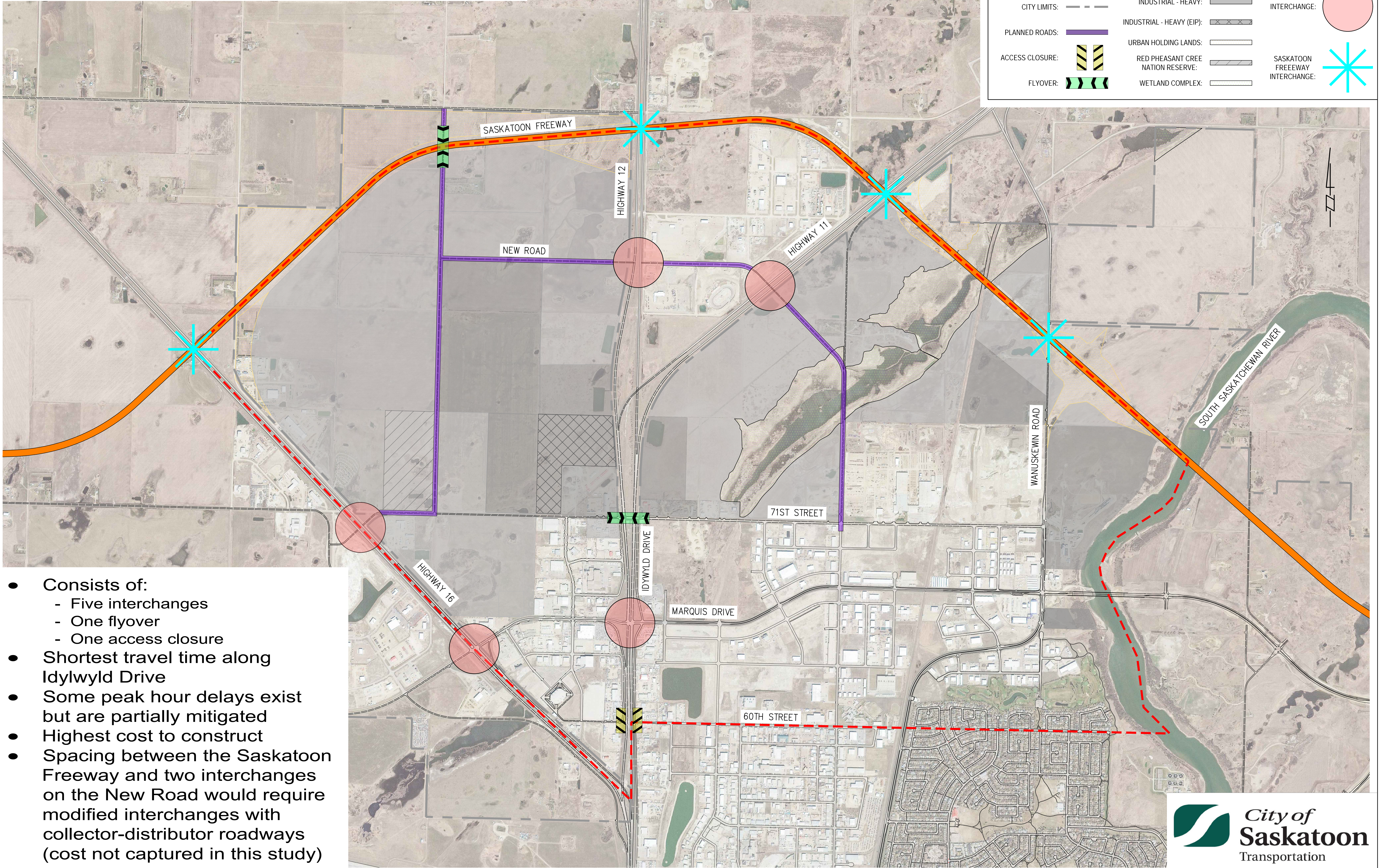
North Saskatoon Network Planning Study: Evaluation Criteria

Category of Criteria	Criteria	Measures	Weighting
Impacts to landowners, businesses and road users	• Safety	Identify high volume vehicle conflict points at each intersection. Can these be mitigated within option? Identify any other specific collision exposure points added by option.	
	• Impacts to adjacent landowners and businesses	Does requirement affect existing development? Does requirement limit options for future development (leave undevelopable parcel shapes or sizes)?	
	• Impacts on active transportation and public transit connectivity	Are required pedestrian crossing locations protected (traffic signal, grade separated crossing)? Are Multi-Use Pathways, sidewalks, transit stop waiting space and amenities (shelters) available/feasible within option?	
Network Wide Mobility	• Accessibility to/from land	Increase travel distance for parcels. Routes important to access that will have AM or PM peak capacity deficiencies expected with future conditions.	
	• Intersection performance	Overall intersection Level of Service (A to F). Individual movement volume to capacity ratio, delay/Level of Service and queue length (within acceptable range, near capacity, over acceptable range).	
	• Travel time along Idylwyld Drive	Travel time, including accounting for intersection delays: <ul style="list-style-type: none"> • Southbound during AM peak hour • Northbound during PM peak hour 	
Cost	• Construction cost	Estimated capital cost	
	• Land acquisition	Area ownership (private vs. public)	



INTERCHANGE SCENARIO

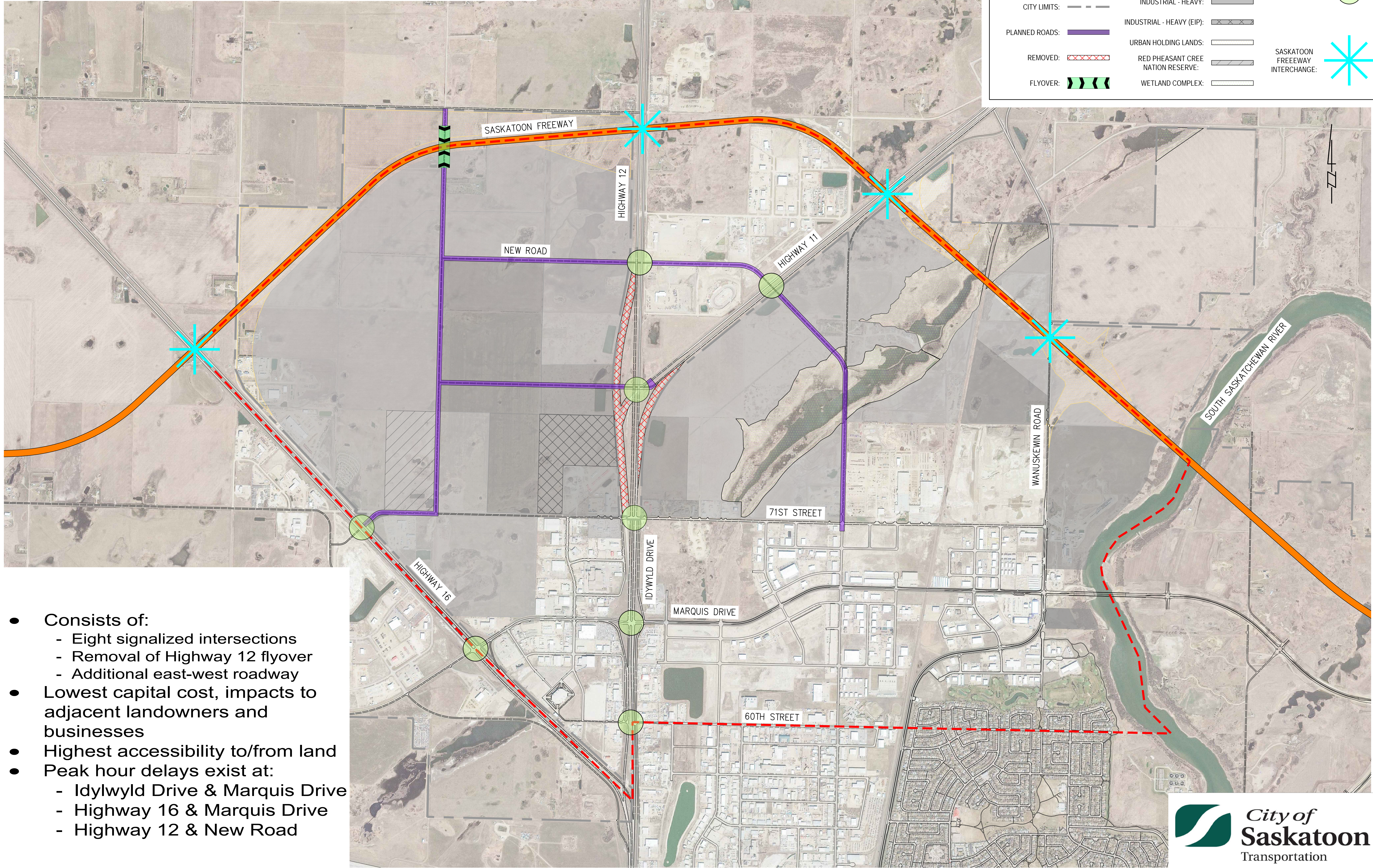
LEGEND					
STUDY AREA:	--- (Red dashed line)	INDUSTRIAL - LIGHT:	▨ (Light grey)	INTERCHANGE:	● (Pink circle)
CITY LIMITS:	- - - (Grey dashed line)	INDUSTRIAL - HEAVY:	▨ (Dark grey)	SASKATOON FREEWAY INTERCHANGE:	✳ (Cyan star)
PLANNED ROADS:	— (Purple solid line)	INDUSTRIAL - HEAVY (EIP):	▨ (Cross-hatched)		
ACCESS CLOSURE:	▨ (Yellow and black diagonal stripes)	URBAN HOLDING LANDS:	▨ (White)		
FLYOVER:	▨ (Green and black diagonal stripes)	RED PHEASANT CREE NATION RESERVE:	▨ (Diagonal lines)		
		WETLAND COMPLEX:	▨ (Horizontal lines)		



- Consists of:
 - Five interchanges
 - One flyover
 - One access closure
- Shortest travel time along Idylwyld Drive
- Some peak hour delays exist but are partially mitigated
- Highest cost to construct
- Spacing between the Saskatoon Freeway and two interchanges on the New Road would require modified interchanges with collector-distributor roadways (cost not captured in this study)

INTERSECTION SCENARIO

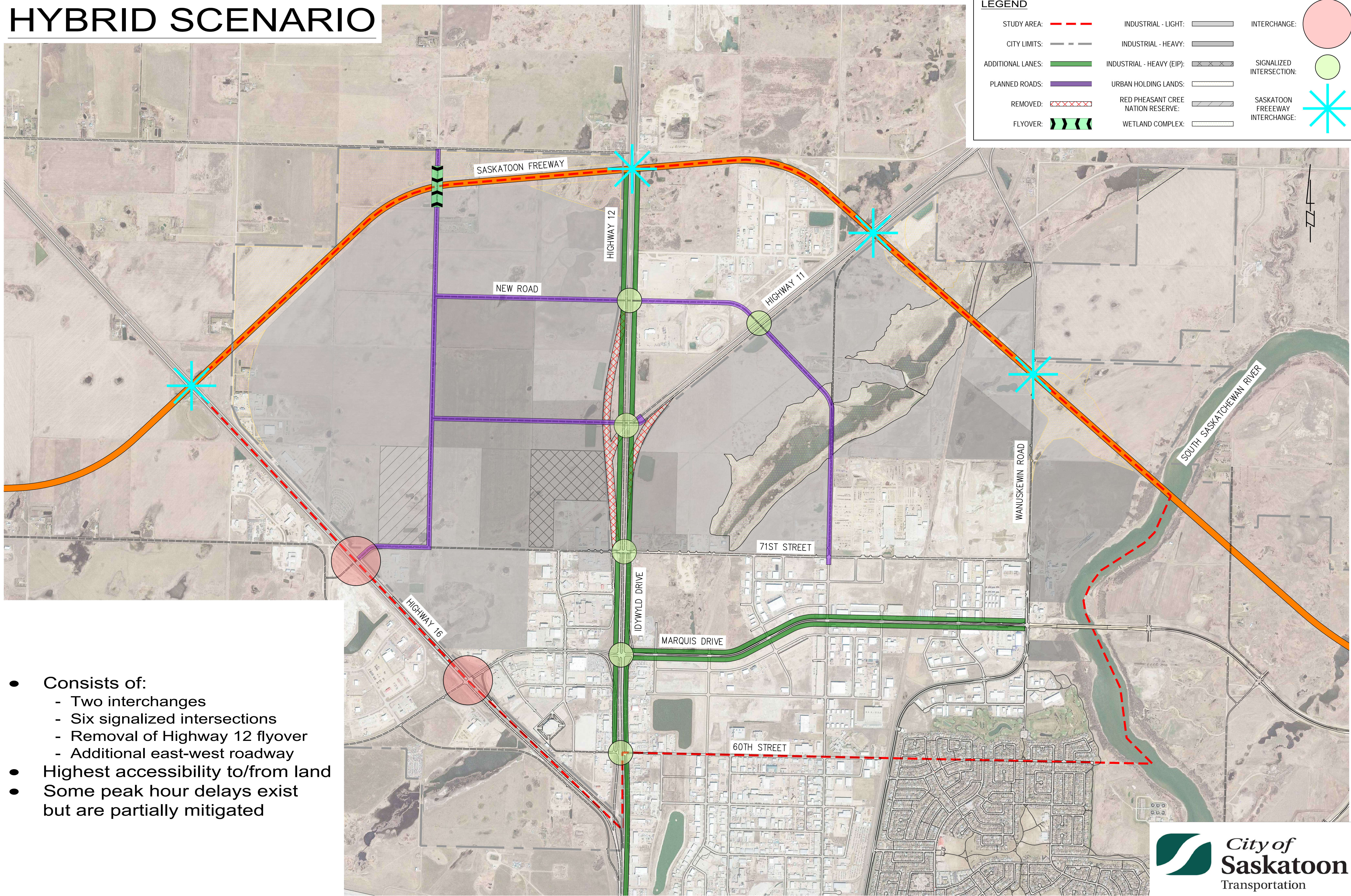
LEGEND					
STUDY AREA:		INDUSTRIAL - LIGHT:		SIGNALIZED INTERSECTION:	
CITY LIMITS:		INDUSTRIAL - HEAVY:		SASKATOON FREEWAY INTERCHANGE:	
PLANNED ROADS:		INDUSTRIAL - HEAVY (EIP):			
REMOVED:		URBAN HOLDING LANDS:			
FLYOVER:		RED PHEASANT CREE NATION RESERVE:			
		WETLAND COMPLEX:			



- Consists of:
 - Eight signalized intersections
 - Removal of Highway 12 flyover
 - Additional east-west roadway
- Lowest capital cost, impacts to adjacent landowners and businesses
- Highest accessibility to/from land
- Peak hour delays exist at:
 - Idylwyld Drive & Marquis Drive
 - Highway 16 & Marquis Drive
 - Highway 12 & New Road

HYBRID SCENARIO

LEGEND		
STUDY AREA:	INDUSTRIAL - LIGHT:	INTERCHANGE:
CITY LIMITS:	INDUSTRIAL - HEAVY:	SIGNALIZED INTERSECTION:
ADDITIONAL LANES:	INDUSTRIAL - HEAVY (EIP):	SASKATOON FREEWAY INTERCHANGE:
PLANNED ROADS:	URBAN HOLDING LANDS:	
REMOVED:	RED PHEASANT CREE NATION RESERVE:	
FLYOVER:	WETLAND COMPLEX:	



- Consists of:
 - Two interchanges
 - Six signalized intersections
 - Removal of Highway 12 flyover
 - Additional east-west roadway
- Highest accessibility to/from land
- Some peak hour delays exist but are partially mitigated

North Saskatoon Network Planning Study: Evaluation Matrix

Category of Criteria	Criteria	Interchange Scenario	Intersection Scenario	Hybrid Scenario
Impacts to landowners, businesses and road users	• Safety	Good	Neutral	Preferred
	• Impacts to adjacent landowners and businesses	Neutral	Poor	Good
	• Impacts on active transportation and public transit connectivity	Neutral	Good	Good
Network Wide Mobility	• Accessibility to/from land	Good	Poor	Poor
	• Intersection performance	Good	Neutral	Good
	• Travel time along Idylwyld Drive	Poor	Neutral	Good
Cost	• Construction cost	Neutral	Poor	Good
	• Land acquisition	Good	Poor	Poor



North Saskatoon Network Planning Study: Next Steps

- Gather stakeholder feedback
 - Identify short-term improvements
 - Short-term improvements will focus on existing intersections (i.e. Idylwyld Drive & Marquis Drive)
 - New infrastructure (planned roads and new intersections) needs will be triggered by land development in the area and the construction of the Saskatoon Freeway
 - Report to council
- This becomes our transportation network plan for the area