



Minimum Grid for Physically Separated Bike Lane Infrastructure

CR 3890



Motion

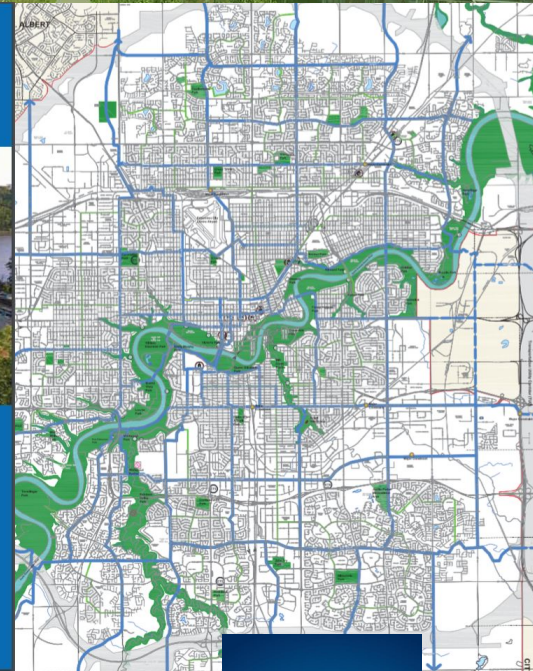
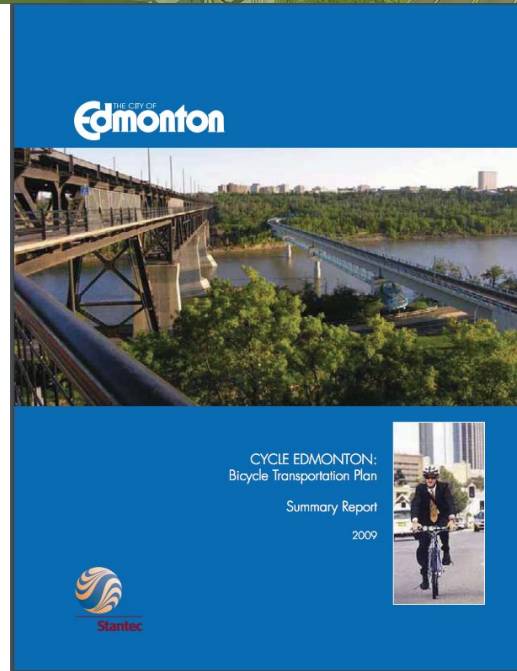
Motion from Council July 12, 2016,

- That Administration, in partnership with Stantec, provide an updated report on a minimum grid for physically separated bike lane infrastructure in the City of Edmonton's core and the report should include the potential use of relatively inexpensive (within existing resources) temporary infrastructure (example: bollards, mobile concrete curbs), as can be found in the City of Calgary's pilot project.”

Background

2009 Bicycle Transportation Plan

- City-Wide System
- Connector System
- Focus on capitalizing on other projects
- Lessons learned





Background

Opportunity

- high concentration of destinations (residents, jobs, amenities)
- high concentration of barriers to cycling (major roadways without cycling infrastructure)
- high concentration of people that are more likely to bike

Background



Calgary's Experience

- Approved 6.5 km grid for \$7.5 million
- Increased percentage of women riding on network
- Supported by 64 % of Calgarians
- 1,000,000+ trips recorded on network
- Final cost: \$5.75 million



Stantec Feasibility Study

Goals:

- Evaluate feasibility of downtown routes for cyclists aged 8 to 80
- identify possible designs of roadways and bikeways
- identify promising routes
- identify potential buffer treatments
- assess the capital and operating costs

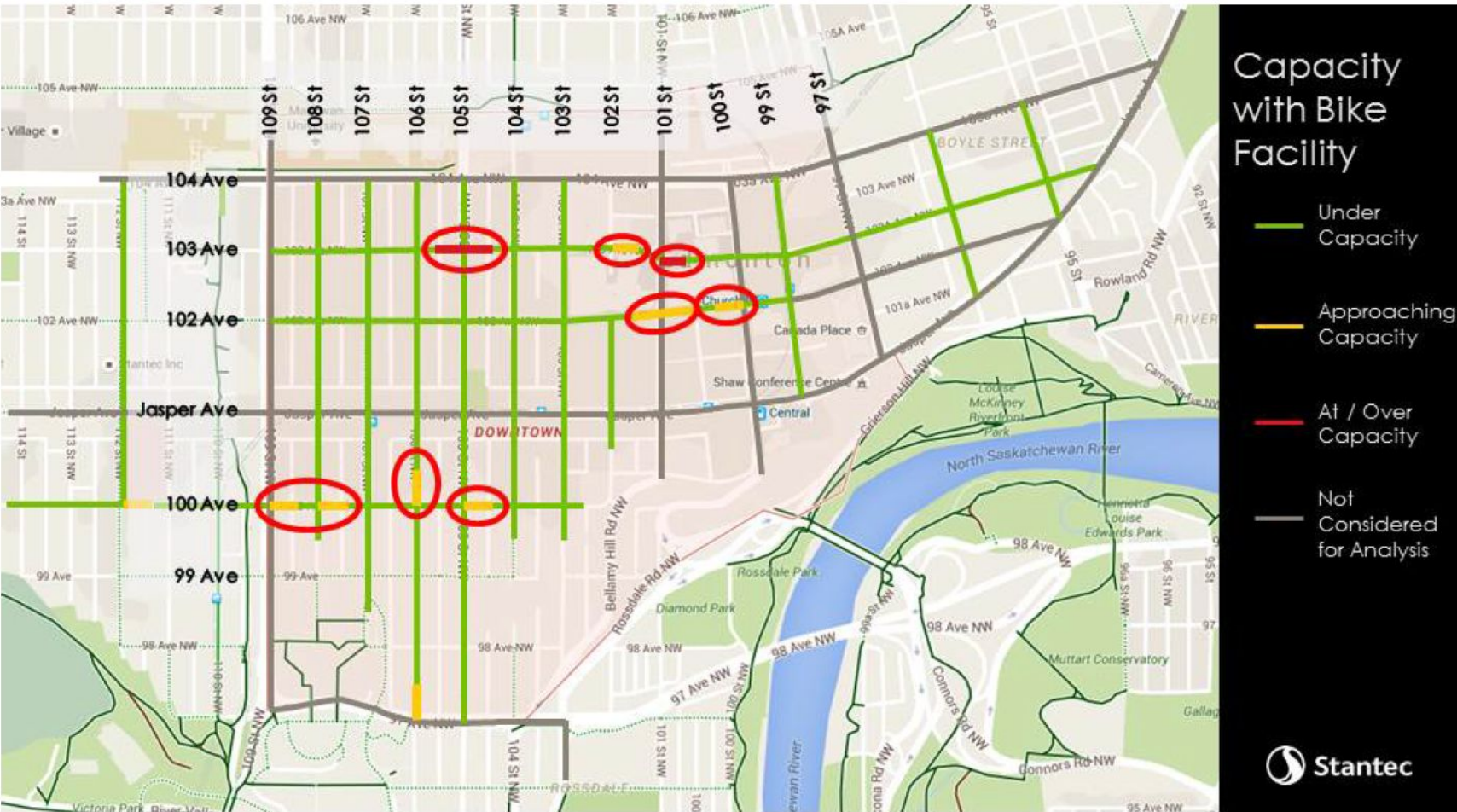


Assessment of Suitable Routes

Factors considered:

- Impacts to motorists
- Impacts of ongoing construction
- Links to bike facilities outside of downtown
- Impacts to transit
- Impacts to parking
- Impact of pavement on ride quality
- Leveraging recent upgrades to roadways

Figure 5 Traffic Assessment Map – Lane Reductions for Protected Bike Lanes (Combined AM & PM Peak)



- Potential All Ages and Abilities route
- Valley Line construction
- Bike-friendly streets
- Key Connection



Design Treatments Options

Base Option includes:

- Buffer
- Bollards



Design Treatments Options

Winter-Friendly Option Includes:

- Buffer & Bollards
- Adds Curbing



Design Treatments Options

Enhanced Option, includes:

- Buffer, Bollards, Curbing
- Adds Planters





Costs

Capital costs include:

- Renewal of aging traffic signal infrastructure
- Traffic signal infrastructure for protected bike lanes
- New traffic signals
- Paint markings
- Curbing, bollards, planters (option dependant)



Costs

Operating costs based on:

- Calgary's snow clearing experience
- preliminary interviews with City of Edmonton staff

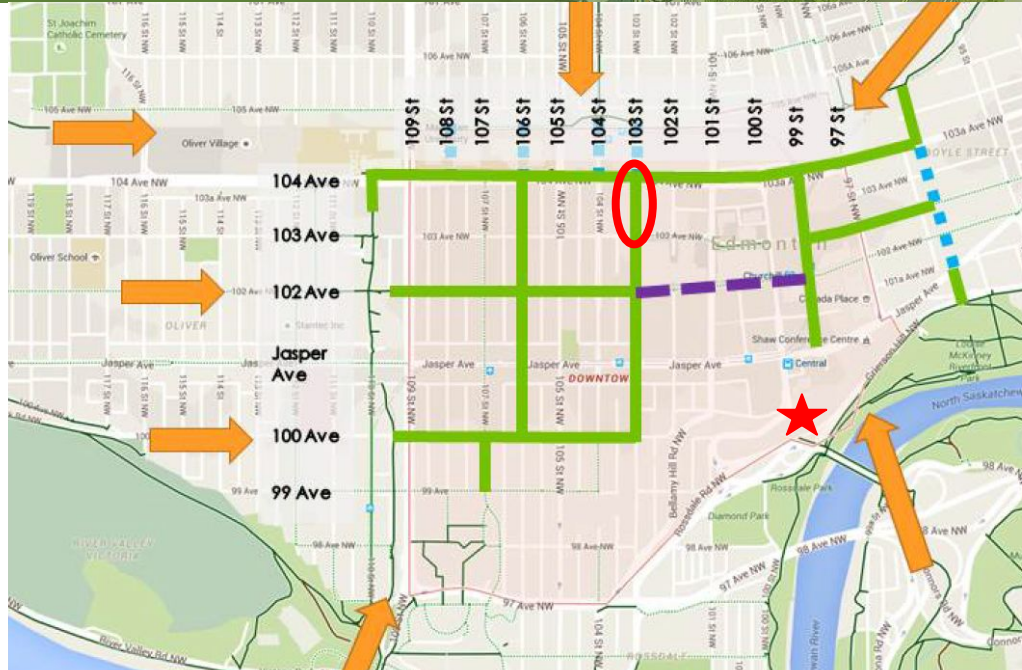


Evaluation of Stantec Study

SUSTAINABLE DEVELOPMENT, CITY PLANNING | SEPTEMBER 2016

Edmonton

Network Evaluation



Design Treatment Options

3 Options Presented:

- Base (not possible for much of network)
- Winter Friendly (acceptable)
- Enhanced (recommended - improves downtown streetscape)





Next Steps

1. Deliver a downtown bicycle grid
 - a. Develop a monitoring and evaluation program
 - b. Develop public engagement, communication, and education plans
2. Concepts for connections to the Mechanized River Valley Access
3. Feasibility analysis for core neighbourhoods
4. Update Bicycle Strategy

Work Plan Implications



- Bicycle Strategy
- Phase Two of Engage 106-76 (Pleasantview and Empire Park)
- Bike facility projects (re-evaluate for priority pending outcome of the Bicycle Strategy):
 - 106 Street, from Whitemud Drive to 34 Avenue
 - 95 Avenue, from 189 Street to 149 Street
 - 97 Street, from 34 Avenue to 63 Avenue

Capital Costs

| | |
|--|--------------------|
| Renewal of aging traffic signal infrastructure | \$1,127,000 |
| Traffic signal infrastructure for protected bike lanes | \$1,190,000 |
| New traffic signals | \$1,208,000 |
| Paint markings | \$341,000 |
| Curbing, bollards, planters | \$2,742,000 |
| New snow clearing equipment | \$200,000 |
| Contingency & traffic signal detection | \$700,000 |
| Total | \$7,528,000 |

Operating Costs

| | |
|--------------------------|------------------|
| Brooming of cycle tracks | \$200,000 |
| Trucking snow | \$100,000 |
| Sidewalk clearing | \$325,000 |
| Total | \$625,000 |



Funding Sources

- \$7,528,000 Capital Budget, reallocated from:
 - 102 Avenue Bikeway (\$1,700,000)
 - Traffic Controller System Conversion (\$700,000)
 - Active Transportation (\$3,128,000)
 - Complete Streets Enhancement (\$2,000,000)
- \$640,000 Operating Budget



Timelines

Option A

- Budget Authorized through Supplemental Capital Budget Adjustment
- Opens early Spring 2018

Option B

- Council authorizes budget in October
- Materials ordered and design starts in October
- Opens June/July 2017



Recommendations

That Urban Planning Committee recommend to City Council:

- That Administration construct the Enhanced design treatment option;
- That capital funding for the bicycle network be advanced either through Funding Option A or Funding Option B;
- That Administration provide periodic through the City Council initiative on Active Transportation.



Questions?

Figure 4 Traffic Assessment Map – Existing Conditions (Combined AM & PM Peak)

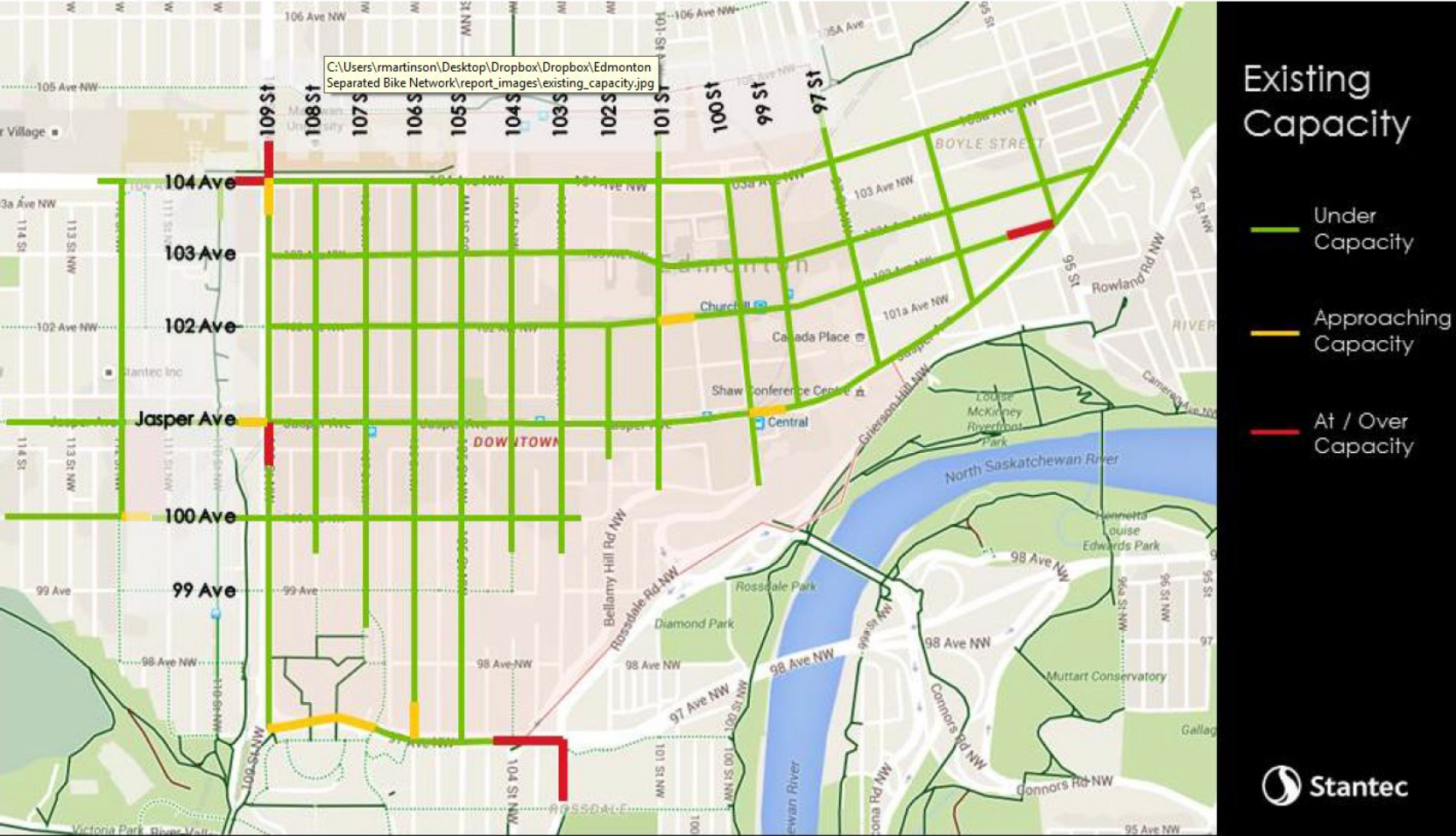


Figure 8 Initial and Secondary Screening Results

