

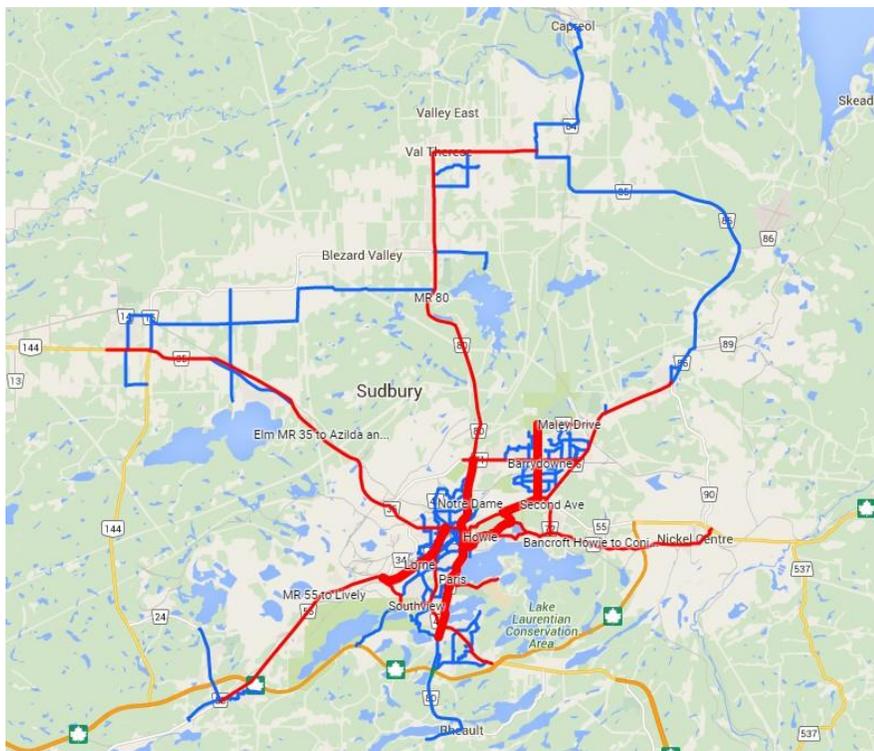
MINIMUM GRID PRIMER

What is a minimum grid?

A minimum grid is a connected network of cycling infrastructure that allows people to reach their destinations safely, conveniently and comfortably by bike. The intent of a minimum grid is to make cycling a viable mode of transportation for citizens of all ages.

Employees can bike to work. People can bike to shop, attend appointments, visit friends and family, or to have fun. Kids can bike to school, to soccer practice, to the park, to grandma's house or to visit a friend. Being able to cycle around a city safely improves quality of life for everyone.

What would a minimum grid look like in Greater Sudbury?



- Safe cycling infrastructure on our primary corridors. Because of safety concerns and their role as main travel routes, providing safe cycling on arterials and collectors is a priority, and will have the biggest impact.

- Communities, neighbourhoods and main destinations connected with safe cycling infrastructure so that cycling is a safe and viable transportation option for residents.

- Cycling routes that are complete, continuous, and connected.

The Sustainable Mobility Advisory Panel has identified a minimum grid of cycling routes that will connect communities, neighbourhoods, and major destinations in Greater Sudbury.

Why is it important to have safe cycling on our busiest streets first?

A transportation network relies on primary routes that secondary routes feed into and out of. This is true of any type of transportation, including cycling. The primary network needs to be constructed first, otherwise the transportation network is fragmented - the secondary routes do not connect to anything.

Studies show that a network of protected bike lanes on main streets is more effective than concentrating primarily on cycling infrastructure on neighbourhood streets. If you do both, and create a network that combines comfortable biking on side streets with comfortable biking on main streets, the impact is multiplied (1,2). Using this approach, Vancouver doubled bike commuting in four years (now at 10%), and has the highest cycling mode share in Canada (3).

Cycling infrastructure	Percent of trips by bike (projected)
Comfortable biking on side streets	~5
Comfortable biking on main streets	~20
Comfortable biking on both main streets and side streets	~40

(1,2)

It is projected that using best practice physical separation on main roads and bicycle-friendly speed reduction on local streets would yield benefits 10–25 times greater than costs. (2)

Dutch cycling infrastructure is recognized to be the best in the world and similarly consists of three complementary components: (i) Quiet, low-speed residential streets that can be shared safely with cyclists; (ii) Protected lanes on busy streets with sophisticated intersection controls; (iii) Off-street pathways (4).

Build it and they will come – the impact of completed cycling networks

After a well-studied 18 month pilot project, Calgary City Council made the Centre City Cycle Track Network permanent (December 19, 2016). During the pilot project, they found (5,6):

- More citizens rode a bicycle downtown with over 1.2 million trips on the network, a tripling in daily weekday bike trips on cycle track routes and a 40% increase in trips into and out of the downtown.

- An increase in the number and percentage of children and women riding on the corridors

- Marked decrease in sidewalk cycling and cycling against the flow of traffic

- Good user satisfaction from drivers, walkers, and cyclists

- Motor vehicle collision frequency decreased or remained the same on each cycle track corridor.

- Overall, no significant change in delay at the intersections analyzed pre- and post-cycle track.

Inspired by these results, Edmonton City Council has unanimously approved building a network of protected bike lanes through downtown Edmonton, to open summer 2017.

Build it and they will come – Greater Sudbury

According to the Sustainable Mobility Plan public input survey (Ref 7, 2010):

- 53% of residents feel unsafe cycling on the roads in the City of Greater Sudbury.
- 77% would choose to cycle if the proper supporting cycling infrastructure was in place.

How Greater Sudbury can achieve a minimum grid in a timely manner

- Evaluate and retrofit our main travel corridors for safe cycling. This should be a short term priority for our City, in the Transportation Master Plan, and/or through Council motion. For example, upcoming changes to the Traffic and Parking By-law will allow boulevards to be appropriately retrofitted for cycling. This is low hanging fruit with a big impact.
- Design road reconstruction projects to be complete streets that meet the needs of all users, including cyclists. In Share the Road's 2017 stakeholder survey, the most mentioned "missed opportunity" was road upgrades that did not include cycling infrastructure (8).
- Always include appropriate safe cycling infrastructure in traffic calming projects.
- Slow down traffic on neighbourhood streets and in community safety zones



Where to start: SMAP has identified a short list of the top 5 priority minimum grid routes: Paris/Notre Dame, Lasalle, Barry Downe, Kingsway, Lorne.

It concentrates on the highest concentration of people and cyclists, the biggest number of major destinations, and major travel corridors where there is no alternate cycling route available. It connects to and among: South End, West End, New Sudbury, Minnow Lake; all post-secondary institutions; the Hospital and Science North; all major commercial centres; some major employers.

Let's give people healthy, safe options to get around Greater Sudbury.

Coalition for a Liveable Sudbury (CLS) is a grassroots group of citizens and community organizations who share a vision of Greater Sudbury as a green, healthy and engaged community. We support environmental, social and economic sustainability.

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liveablesudbury.org



References

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<http://sudburysmap.ca/wp-content/uploads/2015/09/Sustainable-Mobility-Plan.pdf>
8. 2017 Share the Road Stakeholder Survey results
http://www.sharetheroad.ca/files/Stakeholder_Survey_Summary_2017_webcopy.pdf

Also see:

A minimum grid for Greater Sudbury (SMAP):

<https://www.google.com/maps/d/view?mid=1iGU1ptpiP-napsWK8Wq4bs6xH6A&ll=46.50692724378508%2C-81.02881474976209&z=12>

Toronto Minimum Grid campaign: <http://minimumgrid.ca/>