MORRISON HERSHFIELD

Final Report

Spruce Grove
Roadway Speed Limit Study

Spruce Grove, AB

Presented to:

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Revision History

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1	January 31, 2022	Draft Report
2	March 24, 2023	Final Report
3	March 28, 2023	Final Report Rev 1
4	May 08, 2023	Final Report Rev 2

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1. INTRODUCTION

1.1 Background

The City of Spruce Grove is located 11 km west of Edmonton, Alberta. The City has approximately 242 kilometers of roads with local roadways making up the largest portion of the City's road network. According to The City's Traffic Safety Plan (2019-2022)[1], Spruce Grove aims to achieve a speed reduction as one of the primary strategies towards Vision Zero and Safe System goals to minimize traffic collisions, especially those that end up in fatal and seriously injured (KSI) incidents.

The Alberta Traffic Safety Act (TSA)[2] currently allows municipalities across Alberta to change speed limits on their roadways to promote road safety. Several municipalities across Canada and across Alberta (i.e., Edmonton, Calgary, Airdrie, Okotoks, Beaumont, Fort Saskatchewan, Banff, Canmore, Leduc) have endeavored to review de facto speed limits in light of an abundance body of research and best practices that shown that vehicle speed increases both the likelihood of a crash, as well as the severity of the crash, as it diminishes drivers' ability to recognize and avoid potential conflicts.

As per the TSA, unless signage is posted, the de facto speed limits in Alberta are:

- School and playground zones: 30 km/h;
- Roadways inside urban areas: 50 km/h;
- Roadways outside urban areas: 80 km/h;
- Provincial highways inside urban areas: 80 km/h;
- Provincial highways outside urban areas: 100 km/h.

For residential areas, for instance, St. Albert decreased the speed limit to 40 km/h in two neighbourhoods and their downtown core in January 2019. The City of Edmonton have also implemented a speed reduction program from 50 km/h to 40 km/h on most residential and downtown streets as part of the City's Vision Zero Plan[4]. Considering the influence and proximity to Edmonton, it is advisable for Spruce Grove to align with Edmonton's speed management principles, policies and practices, yet sensitive to the unique context of Spruce Grove.

1.2 Study Objectives

The study aims to evaluate the City's main road network in support of reducing current de-facto speed limits of 50 km/hr to a potential speed limit of 40 km/hr where justifiable and applicable considering emerging industry best practices. Key study objectives include:

- Review the City's posted speed limits of all arterial and collector roads. Identify road segments with inappropriate posted speed limits and provide recommendations to modify the posted speed limits.

[1] Traffic Safety Plan 2019-2022 (sprucegrove.org)
[2] Traffic Safety Act - Open Government (alberta.ca)
[4] Vision Zero | City of Edmonton

- Review the appropriateness of the current speed limits on sample local roads and provide speed limit modification recommendations.
- Review City's current setting of school and playground zones, analyze the appropriateness and provide recommendations. Provide a general guideline of posted speed limit for school/playground zones to follow for new development and additional safety measures.
- Provide a high-level cost estimation for updating the City's recommended posted speed limit.
- Provide the preliminary traffic speed control signage recommendations for future city developments.

1.3 Study Approach

The study considers several approaches for setting speed limits while aiming for a balanced approach between traditional methods for setting speed limits on major roads and safe speed methodologies for neighborhood roads. The approaches for setting speed limits considered in the study included:

- Canadian Guidelines for Establishing Posted Speed Limits (CGEPSL): Applies to setting speed limits for arterial and major collector roadways (not including school zones and playground zones).
- NACTO City Limits, Setting Safe Speed Limits on Urban Streets: Applied to neighborhood (area) local roads.
- Alberta Transportation Guidelines to Playground and School Area and Zones: Applies to setting speed limits (zones and areas) for playground and schools.
- Alberta Transportation Community Speed limit Information Sign Recommended Practice

The approach aim for the integration of Engineering and Safe Systems approaches for establishing posted speed limits applying appropriate methods in the 'right' context according to research and best practices. As such, the latest Transportation Association of Canada (TAC) Canadian Guidelines for Establishing Posted Speed Limits (CGEPSL) is applied on major collector and arterial roadways whereas the NACTO guidelines mostly applied to neighborhood local roadways.

The TAC-CGEPSL methodology is the most data-intensive, requiring appropriate road segmentation and inputs on various criteria including but not limited to geometric and non-geometric parameters, operational and functional information, safety, and other context-sensitive considerations for each road segment.

On the other hand, the National Association of City Transportation Official (NACTO)'s recommended best practice for setting speed limits is applied to a batch of characteristic local streets with the view to potentially lower speed limits on local street of similar characteristics. The safe speed study methodology is a context-sensitive tool that analyzes conflict density and activity level, among other contextual factors, to determine the speed limit that will best minimize the risk of a person being killed or seriously injured. Generally, high conflict, high activity streets will require lower speed limits since the risk of a crash is high, while somewhat higher speed limits can be considered on low conflict, low activity street.

For School Zones and Playgrounds, the study follows The Alberta Transportation (AT) Guidelines for School and Playground Zones and Areas. The guidelines provide a systematic, objective, and quantitative procedure for assessing the need for a school and playground zone or area.

2. Analysis of Arterial & Major Collector Roadways

2.1 Road Network Segmentation

The road segmentation is based on the rationale that a speed zone should be applied to a homogeneous roadway section. A homogeneous section of roadway is where land use, road function, horizontal and vertical geometry, cross-section, traffic volumes, access controls and pedestrian and cyclist volumes are generally consistent from a driver's perspective. Generally, principles and considerations for road segmentation were followed (some exceptions applied depending on the contexts):

- Posted speed limit is not a criterion for selecting roadway segments. If there are two speed limits for a segment, the speed limit that is the larger portion within the segment will be used for reference only.
- The CGEPSL guide indicates that the minimum length of a speed zone should be 500m for posted speeds of 70km/h or less, and 1,000 m for speeds posted higher than 70 km/h. The road segmentation practice for Spruce Grove will generally follow this standard.
- Segments in the proximity of signalized intersection (intersection functional area) generally exhibit different operational and geometric parameters (i.e., controlled traffic, additional turning lanes, etc.). Therefore, only the main characteristics of the corridor were included in the review.

Based on the CGEPSL guide, the main roadway network (Arterial and main collectors) was segmented into 76 homogenous road segments, as shown in Figure 1 and described in Table 1.

FIGURE 1. SPRUCE GROVE COLLECTOR AND ARTERIAL ROAD SEGMENTATION

TABLE 1. DETAILS OF SPRUCE GROVE COLLECTOR AND ARTERIAL ROAD SEGMENTATION

ID	Roadway	FROM	TO	Lane Number	Class	Surface	Length (m)
1	Nelson Drive	Mcleod Avenue	Hwy 16a E	3	Collector	Asphalt	413
2	Calahoo Road	Millgrove Drive	Weston Drive	2	Major Arterial	Asphalt	731
3	Grove Drive W	Unnamed Drive	Copperhaven Drive	2	Major Arterial	Asphalt	334
4	Westwind Drive	Century Road	Kenton Way	2	Collector	Asphalt	265
5	Spruce Ridge Drive	Spring Gate	Jennifer Heil Way	2	Collector	Asphalt	808
6	Hawthorne Gate	Jennifer Hail Way	Heatherglen Drive	2	Collector	Asphalt	323
7	Heatherglen Drive	Grove Drive	Hawthome Gate	2	Collector	Asphalt	636
8	Deer Park Drive	Dalton Link	Grove Drive	2	Collector	Asphalt	443
9	Spruce Ridge Road	Sprinwood Way	Spruce Ridge Drive	2	Collector	Asphalt	709
10	Harvest Ridge Drive[5]	Grove Drive West	Grove Drive West	2	Collector	Asphalt	1756
11	Pioneer Road	Garneau Link	Grove Drive	2	Collector	Asphalt	819
12	Prescott Boulevard	Range Road 271	Penn Place	2	Collector	Asphalt	484
13	Greenbury Boulevard	Grove Drive	Pioneer Road	1	Collector	Asphalt	780
14	Lakeland Drive	Grove Meadow Drive	Mcleod Avenue	2	Collector	Asphalt	715
15	McLeod Avenue	Century Road	Lawson Boulevard	2	Collector	Asphalt	642
16	Century Road	Yellowhead Hwy	Vanderbilt Common	2	Major Arterial	Asphalt	600
17	Victoria Avenue	Spruce Village Drive W	Vanderbilt Common	2	Collector	Asphalt	807
18	Spruce Village Drive W	Vanderbilt Common	Victoria Avenue	2	Collector	Asphalt	412
19	South Avenue	Golden Spike Road	Century Road	2	Collector	Asphalt	1632
20	Diamond Avenue	Oswald Drive	Century Road	2	Collector	Asphalt	1643
21	Century Road	Hwy 16a E	Twr 524	2	Major Arterial	Asphalt	3239
22	McLeod Avenue	Calahoo Road	King Street	4	Collector	Asphalt	653
23	Brookwood Drive	King Street	Century Road	2	Collector	Asphalt	826
24	Longview Drive	Fairway Drive	Kings Link	2	Collector	Asphalt	1033
25	Fairway Drive	Longview Drive	Links Road	2	Collector	Asphalt	718
26	Links Road	Fairway Drive	Grove Drive	2	Collector	Asphalt	263
27	Longview Drive	Calahoo Road	Fairway Drive	2	Collector	Asphalt	848

[5] It is worth noting that the Harvest Ridge Drive's section east of Heron Link is a major collector. The roadway width reduces west of Heron Link. Based on the CGEPSL analysis for Harvest Ridge Drive, the entire section is recommended a posted speed limit of 50 km/h.

ID	Roadway	FROM	TO	Lane Number	Class	Surface	Length (m)
28	Fieldstone Drive	Fieldstone Crescent	Grove Drive	2	Collector	Asphalt	549
29	Linkside Boulevard	Linksview Drive	Long View Drive	2	Collector	Asphalt	419
30	Avonlea Way	Arthur Way	Calahoo Road	2	Collector	Asphalt	655
31	Calahoo Road	Grove Drive	Woodhaven Drive	2	Major Arterial	Asphalt	520
32	Copperhaven Drive	Grove Drive West	Spring Link	2	Collector	Asphalt	564
33	Jennifer Heil Way	Yellowhead Hwy	Dalton Link	1	Major Arterial	Asphalt	668
34	Jennifer Heil Way	Dalton Link	Grove Drive	2	Major Arterial	Asphalt	403
35	Jennifer Heil Way	Grove Drive	Hawthome Gate	2	Major Arterial	Asphalt	633
36	Jennifer Heil Way (NB)	Spruce Ridge Drive	Nelson Drive	2	Major Arterial	Asphalt	422
37	Jennifer Heil Way (SB)	Spruce Ridge Drive	Nelson Drive	2	Major Arterial	Asphalt	424
38	Jennifer Heil Way (NB)	Nelson Drive	Mcleod Avenue	2	Major Arterial	Asphalt	581
39	Jennifer Heil Way (SB)	Nelson Drive	Mcleod Avenue	3	Major Arterial	Asphalt	580
40	Jennifer Heil Way	Mcleod Avenue	Hwy 16a E	4	Major Arterial	Asphalt	368
41	Calahoo Road	Weston Drive	Hwy 16a E	2	Major Arterial	Asphalt	613
42	Golden Spike Road (NB)	Hwy 16a E	Diamond Avenue	2	Major Arterial	Asphalt	586
43	Golden Spike Road (SB)	Hwy 16a E	Diamond Avenue	2	Major Arterial	Asphalt	587
44	Campsite Road	Hwy 16a E	Twr 524	2	Major Arterial	Asphalt	3217
45	McLaughlin Drive	Nelson Drive	Mcleod Avenue	2	Collector	Asphalt	610
46	Millgrove Drive	Grove Drive	Calahoo Road	2	Collector	Asphalt	1095
47	Aspenglen Drive	Avonlea Way	Grove Drive	2	Collector	Asphalt	665
48	Spruce Village Way	Victoria Avenue	Grove Drive	2	Collector	Asphalt	155
49	Calahoo Road	Avonlea Way	Grove Drive	2	Major Arterial	Asphalt	690
50	Century Road	Vanderbilt Common	Grove Drive	2	Major Arterial	Asphalt	573
51	Prospect Way	Range Road 271	Prospect Place	2	Collector	Asphalt	210
52	Tonewood Boulevard	Grove Drive	Timber Way	2	Collector	Asphalt	343
53	McLeod Avenue	Nelson Drive	Calahoo Road	4	Collector	Asphalt	859
54	Spruce Ridge Road	Grove Drive West	Spruce Ridge Drive	2	Collector	Asphalt	551
55	King Street	Kings Link	Grove Drive	2	Collector	Asphalt	869
56	Century Road	Grove Drive	Grove Meadow Drive	2	Major Arterial	Asphalt	787

ID	Roadway	FROM	TO	Lane Number	Class	Surface	Length (m)
57	Golden Spike Road	Diamond Avenue	Twr 524	2	Major Arterial	Asphalt	2648
58	King Street	Woodhaven Drive	Hwy 16a	4	Collector	Asphalt	1183
59	Woodhaven Drive	Calahoo Road	King Street	2	Collector	Asphalt	863
60	Greystone Drive	Grove Drive	Grove Meadow Drive	2	Collector	Asphalt	875
61	Weston Drive	Nelson Drive	Calahoo Road	2	Collector	Asphalt	918
62	King Street	Grove Drive	Woodhaven Drive	2	Collector	Asphalt	713
63	Deer Park Boulevard	Deer Park Drive	Deer Park Drive	2	Collector	Asphalt	1075
64	Grove Drive W	Harvest Ridge Drive	Jennifer Heil Way	2	Major Arterial	Asphalt	1266
65	McLeod Avenue	King Street	Century Road	2	Collector	Asphalt	1267
66	McLeod Avenue	Jennifer Heil Way	Nelson Drive	4	Collector	Asphalt	839
67	Vanderbilt Common	Century Road	Spruce Village Drive E	2	Collector	Asphalt	665
68	Grove Drive	Century Road	Pioneer Road	2	Major Arterial	Asphalt	1674
69	Grove Drive	Calahoo Road	Century Road	2	Major Arterial	Asphalt	1636
70	Grove Drive	Jennifer Hail Way	Calahoo Road	2	Major Arterial	Asphalt	1649
71	Pioneer Road	Grove Drive	Mcleod Avenue	2	Major Arterial	Asphalt	1276
72	Nelson Drive	Jennifer Heil Way	Mcleod Avenue	2	Collector	Asphalt	1203
73	Diamond Avenue	Campsite Road	Golden Spike Road	2	Collector	Asphalt	1621
74	Grove Meadow Drive	Century Road	Landry Court	2	Collector	Asphalt	867
75	Calahoo Road	Adelaide Court	Longview Drive	2	Collector	Asphalt	789
76	Century Road	Brookwood Dr/Grove Meadow Dr	Hwy 16a E	3	Major Arterial	Asphalt	1060

2.2 Road Segment Data Inputs

According to CGEPSL, the data needed for assessing and recommending the posted speed limit can be classified into road segment basic information and risk factors.

The road basic information includes the name of corridor and location of segment, geographic region/road agency, road classification, land use context (i.e., urban or rural), divided or undivided, major or minor, number of through lanes per direction, length of corridor, design speed, current posted speed limit, prevailing speed (i.e., 85th percentile speed) and any policy of the maximum posted speed limit.

The risk factor information concerns horizontal geometry, vertical geometry, average lane width, roadside hazards, pedestrian exposure, cyclist exposure, pavement surface, number of intersections with public roads (i.e., stop-controlled intersection, signalized intersection,

roundabout/traffic circle, crosswalk, active and at-grade railroad crossing, side street, stop-controlled or lane, number of intersections with private access driveways (i.e., left turn movements permitted, right-in/right-out only), number of interchanges along corridor and on-street parking. In addition:

- Based on the existing conditions, the CGEPSL guide assigns the risk levels ranging from lower, medium to higher to horizontal geometry, vertical geometry, average lane width, roadside hazards, pedestrian exposure, cyclist exposure, pavement surface, number of interchanges and on-street parking, separately. The scores are then assigned to each indicator based on the risk level and weight factor.
- Regarding the number of intersections with public roads, points are assigned based on the traffic control type(s) and number of each traffic control type along the segment multiplied by assigned weighting factors. The intersections at either end of the segment should be included when applicable.
- Regarding the number of intersections with private access driveways points are assigned based on whether left turn movement is allowed at a driveway providing access to active properties and the number of driveways multiplied by assigned weighting factors. The accesses at either end of the segment should be included when applicable.
- Appendix A lists the weighting and scoring details of the above-mentioned risk criteria.

In general, a higher calculated total risk score represents a lower appropriate posted speed limit recommended. Appendix B lists the detailed inputs of all the factors and the speed limit assessment and recommendation results for each road segment. It should be noted that a few road segments have a very limited length and is not included in this procedure. In this case, the original posted speed limit is remained.

2.3 Pedestrian and Cyclist Exposure

Pedestrian and cyclist exposure assessment in the road environments is also a key consideration in the CGEPLS methodology. The following sections describe and illustrate how pedestrian and cyclist exposure risk was evaluated.

2.3.1 Pedestrian Exposure Assessment

Together, the likelihood of pedestrians using a roadway and the availability and type of facilities provided for their use, are used as an indicator of the risk associated with pedestrians. A roadway known or expected to be used by pedestrians but with limited facilities (i.e., sidewalks, pathways, trails, etc.) for their use may justify a lower speed limit as the lack of facilities may increase the risk of pedestrian collisions.

For pedestrian activity, main pedestrian generators (i.e., schools, churches, community centers, parks, municipal buildings) as well as medium-to-high-density residential areas have been identified in geographic context to arterial and collector segments. Proximity measures from each road segment to all nearest pedestrian generators was assessed as an indication of the likelihood of a pedestrian using the roadway. The higher the number of nearby pedestrian generators and the proximity of the road to them, the higher the likelihood of pedestrian activity expected in the vicinity of the road segment (see the following figure).

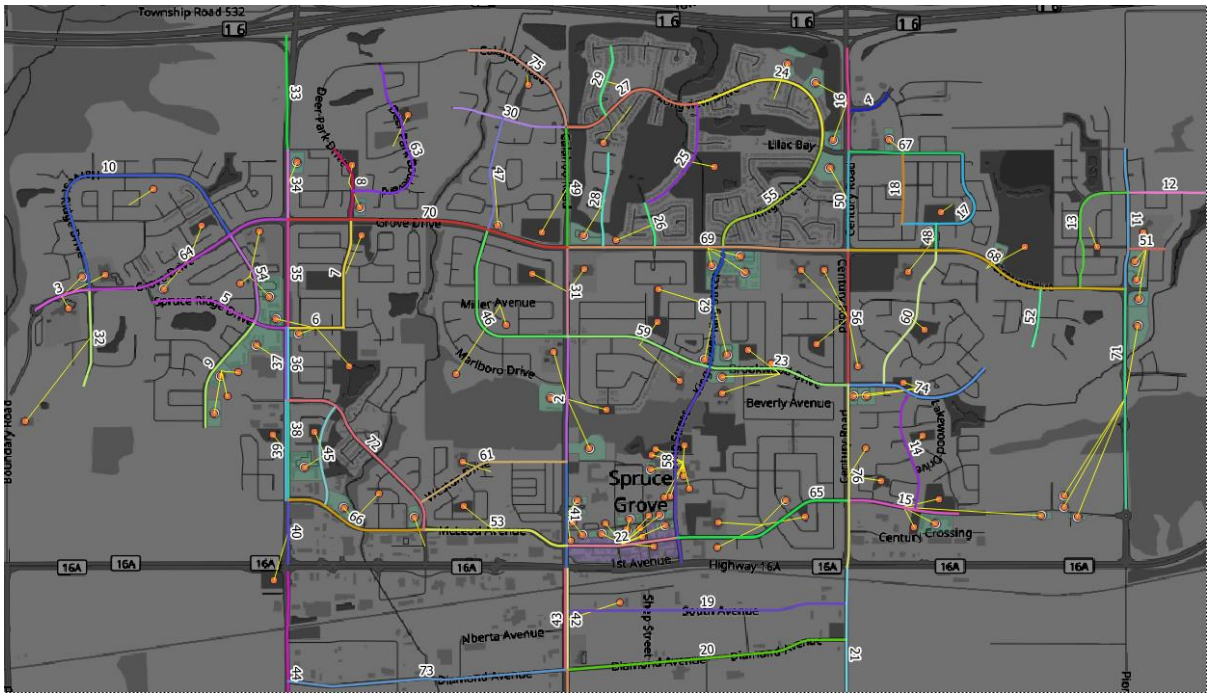


FIGURE 2. PROXIMITY OF PEDESTRIAN GENERATORS TO COLLECTOR AND ARTERIAL ROADWAYS

On the other hand, the availability of pedestrian facilities around arterial and collector roads such as sidewalks and trails were assessed for each road segment. A facility availability index was developed to indicate the ratio of sidewalks and trails available per linear metre of roadway for each road segment. The higher the ratio, the higher the availability of facilities for pedestrian use and therefore the lower the risk for them (see the figure below).

FIGURE 3. AVAILABILITY OF PEDESTRIAN FACILITIES ACROSS SPRUCE GROVE

2.3.2 Cyclist Exposure Assessment

Cyclists are at a higher risk when there is known cyclist activity on a roadway with no cycling facilities. The risk for cyclist may be mitigated by the provision of designated bike lanes, wide curb lanes or off-road facilities. A lower posted speed may be justified for roads where cyclists are present, but no designated road space is allocated to them. Similar to pedestrian exposure, it is important to consider both levels of cycling activity and the availability of cycling facilities along (or in the proximity) of road segments to assess potential risk.

To understand levels of cycling activity in Spruce Grove, Strava's activity heat-map data was reviewed. Strava heatmaps shows 'heat' made by historic aggregated, public cycling and pedestrian reported activities. The heatmap is updated monthly. See Strava's heatmap of Spruce Grove cycling activity below.

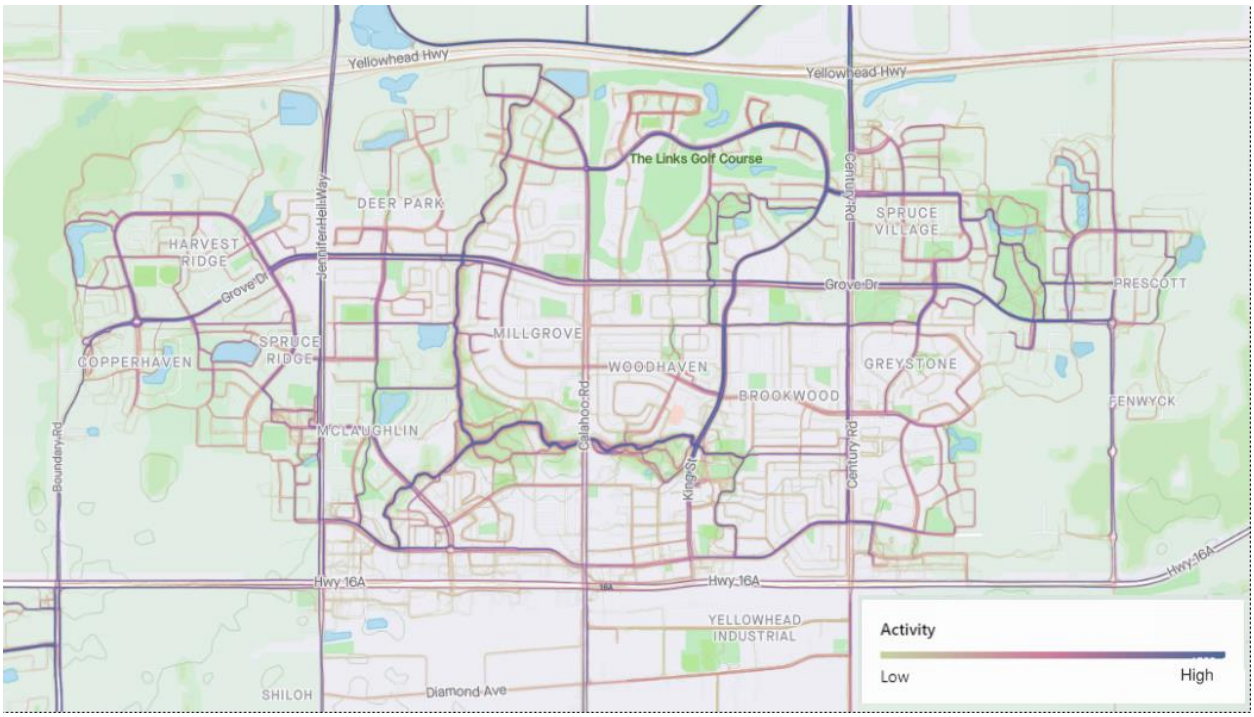


FIGURE 4. STRAVA HEAT MAP OF SPRUCE GROVE CYCLING ACTIVITY

In terms of cycling facilities available along (or nearby) arterial and collector roadway, it is understood that cycling in Spruce Grove is mainly intended to be accommodated on the more than 40 kilometers of all-weather trails network City-wide. Yet some cycling activity is also accommodated on-road as the data shows.

For the study, the availability of dedicated cycling facilities along road segments was considered as the availability of dedicated trails along a particular roadway. A facility availability index was developed to estimate the ratio of trails available per linear metre of roadway for each road segment. Thus, the higher the ratio the higher the availability of dedicated facilities for cyclists and therefore the lower the risk for them. For instance, road segments with trails on both sides were generally categorized as 'high' in terms of availability, while those with on-one sided or none at all were categorized 'medium' or 'low' availability respectively. See the figure below for illustration of trail availability in relation to arterial and collector road segments.

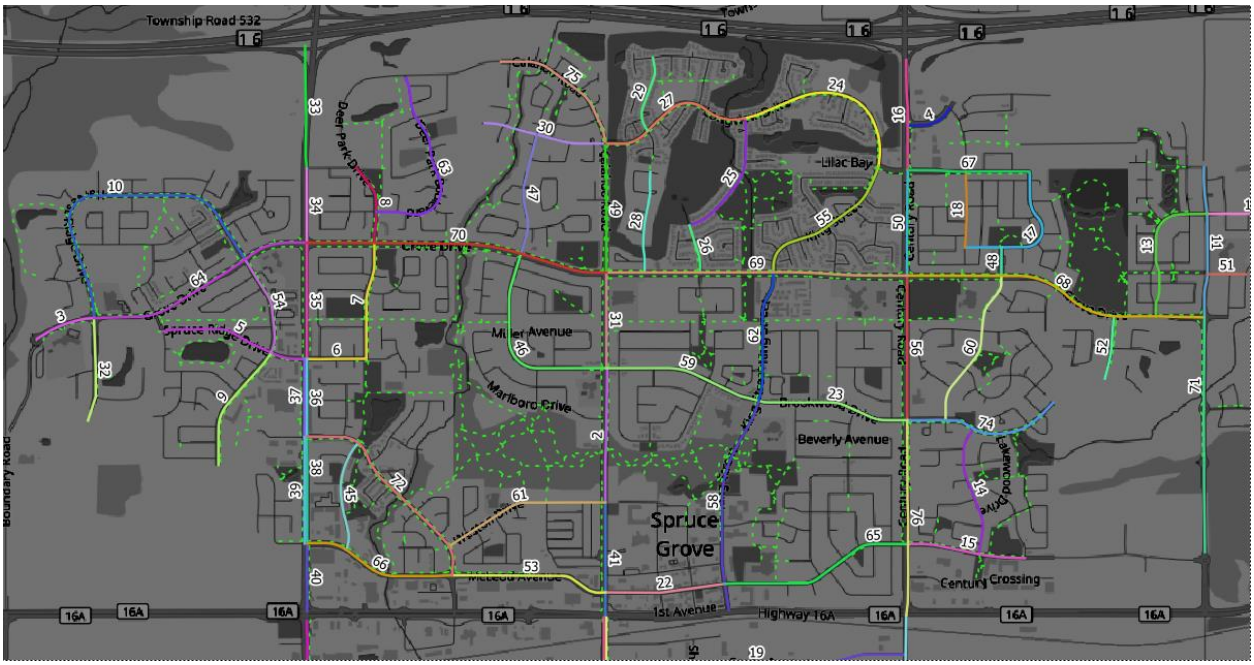


FIGURE 5. AVAILABILITY OF CYCLING FACILITIES ACROSS SPRUCE GROVE

3. Neighborhood Local Roadways Review

Local roadways make up the largest portion of the City's network (their total linear length of 170 km is more than the combined length of arterials and collectors).

There are two primary types of roadways within Neighbourhoods. Residential streets are typical streets that provide access to homes. Collector streets provide access to some homes, but also serve a circulation function within the area, support transit service, provide access for school sites, local shops and parks, and connect to the larger network of roadways that run between communities.

Local roadways also often share mobility with vulnerable road uses and sometimes serve as recreational spaces for local activities such as street hockey games. During the COVID-19 pandemic, there was a high demand on the active transportation network as trips and activity increased in local areas.

In accordance with the Alberta TSA, unless signage is posted, the de facto speed limits for roadways inside urban areas is 50 km/h. Most municipalities have a current default speed of 50 km/h on local roadways and local roadway speed reviews are generally conducted due to public request, safety concern, or the construction of a new playground or school.

Studies have shown that a reduction in vehicle operating speeds from 50 km/h to 40 km/h increases the chance of survival from 15% to 70% for a vulnerable road user struck by a vehicle. This rate is further increased to 90% for operating speeds of 30 km/h[6].

In addition, reducing residential speeds make streets calmer, quieter, and safer for people walking, biking, driving and enjoying their neighbourhood. Slowing down gives drivers more time to react to the unexpected, reduces killed and seriously injures (KSI) incidents, and has very little impact on travel times.

Since local roads tend to have either very low volumes or operate at the speed of the most cautious driver, it is common practice on many jurisdictions to apply a category speed limit to minor streets without detailed review of street characteristics.[7]

Cities across Canada and the US are reducing de facto speed limits on residential roads to increase safety and livability in their communities. This includes the City of St. Albert, the City of Calgary, City of Edmonton, Airdrie, Okotoks and Beaumont who have already reduced speed limits across residential areas.

3.1 Local Roads Assessments

For the evaluation of speed limit settings on neighborhood local streets. NACTO's recommended methodology for setting speed limits in urban streets was generally followed. The NACTO's

[6] City of Toronto. Toronto Complete Streets Guidelines (Toronto Complete Streets Guideline). 2016. Figure 8-5. Transportation Association of Canada, 2011. Geometric Design Guide for Canadian Roads Part 1. 1.2.5.2 - 1.2.5.4.).

[7] https://nacto.org/wp-content/uploads/2020/07/NACTO_CityLimits_Spreads.pdf

approach[8] recommends evaluating a batch of similar streets with the view to lower speed limits on many streets of one type all at once (local streets in this case).

The NACTO's Safe Speed Study methodology is a context-sensitive tool that analysis conflict density and activity level, among other contextual factors, to determine the speed limit that will best minimize the risk of a person being killed or seriously injured (See Figure 6. Generally, high conflict, high activity streets will require lower speed limits since the risk of a crash is high, while somewhat higher speed limits can be considered on low conflict, low activity street.

FIGURE 6 RISK MATRIX: CONFLICT DENSITY AND ACTIVITY LEVEL. (ADAPTED FROM 2020 NACTO CITY LIMITS, SETTING SAFE SPEEDS LIMITS ON URBAN STREETS)

For neighborhood roads, it is recommended to be used in lieu of traditional percentile-based speed methodologies. Required data includes typical street conditions and collision history (five-year history of all crashed that resulted in a fatality or serious injury including the location, crash-type, etc.). Other context-sensitive parameters for estimation of conflict density and activity levels will be obtained from a combination of methods including GIS municipal data (i.e., availability of sidewalks, crosswalk and intersection spacing, separation of modes, etc.) and site observations.

3.2 Local Roadway Selection

Ten representative local roadways are selected for evaluation in consultation with the City. The pre-screening criteria considered the following factors: existing safety considerations, the presence of mixed transportation modes, adjacent land use, traffic volume and existing speed limit, the design intent, and the primary use of the road. The roadways selected and their main attributes were collected from a desktop review and subsequent site visit conducted Nov 18, 2022, and are summarize below. Detailed site observations (checklist) are included in Appendix C. A general description of each sample corridor follows Table 2.

[8] NACTO_CityLimits_Spreads.pdf

TABLE 2. GENERAL DESCRIPTION OF SAMPLE LOCAL ROAD SEGMENTS

Road	From	To	Predominant Land Use
Beverly Avenue	Blairmore St	Benton Street	Low density residential
Mathias Ave	Millgrove Dr	Mckean Way	Low density residential
Church Road	Queen St	King St	Mixed high-density residential/commercial
Mohr Ave	Spruce Glen	Queen St	Low/Medium density residential
Saskatchewan Ave	Commerce Rd	Canada Post	Industrial
Madison Crescent	Campsite Rd	At road bend	Industrial
McLeod Ave	Queen St	King St	Mixed Use Commercial Street
Virginia Ave	Ventura St	Vernon St	Medium Density Residential
Langley Crescent	Lakeland Dr	Lakeland Dr	Low density residential
Fifth Ave	King St	Oatway St	Mixed medium-density residential/commercial

3.2.1 Beverly Avenue between Blairmore Street and Benton Street

Located in the Brookwood residential (mostly single-family) neighborhood which is located just a short drive from the city center, and it is known for its spacious homes and estates and regarded as desirable location in the City. Beverly Avenue from Blairmore St. to Benton Street is a three-laned local neighborhood road (two curbside parking lanes plus a two-way middle lane). It is a straight and fairly long (520 m) road segment which is only segmented by a mid-point unsignalized intersection at Brookwood Crescent at approximately 250+m from either end. Its straight and long alignment may be prone for speeding. Traffic activity appears low during the day. Most adjacent residential properties appear to have at least one driveaway directly connected to the road. A narrow 1m mono-walk (sidewalk adjacent to road) is only available on the north side of the road. It appears to be winter maintained. On-street parking occupancy during most of the day appear to be low-to moderate, presumably picking up at evenings when residents come back from work. No traffic calming features (i.e., speed humps, corner bulges, speed signs, etc.) were observed. A number of large trees along the road segment which may affect sightlines especially at nearby intersections with Blairmore and Benton Streets.

Figure 7. Beverly Avenue between Blairmore Street and Benton Street

3.2.2 Mathias Avenue between Millgrove Drive and Mckean Way

Located in the Millgrove residential neighborhood, Millgrove is a well-established neighbourhood in central Spruce Grove. Mostly single-family homes, the majority of which are bungalows, bi-levels and split-levels. The neighbourhood is bordered by Calahoo Road, Grove Drive, and the Heritage Grove Park with over 40km of all-weather trails. It is also known for its close proximity to local schools with both the Millgrove School and the Spruce Grove Composite High School just down the street.

Mathias Avenue between Millgrove Dr (collector road) and Mckean Way (local road) is a three-laned local neighborhood road (two curbside parking lanes plus a two-way middle lane). It is a straight and fairly long (420 m) road segment which is only intersected by a number of residential driveways to/from individual front home garages. It is a straight and long alignment that may be prone for speeding. Traffic activity appears low during the day. A narrow 1m mono-walk (sidewalk adjacent to road) is only available on the south side of the road. Sidewalk snow clearance appears to be random (presumably the responsibility of each homeowner). On-street parking occupancy during most of the day appear to be low, presumably picking up at evenings when most residents

return home. No traffic calming features (i.e., speed humps, corner bulges, speed signs, etc.) were observed. A number of large trees along the road segment were observed.

Figure 8. Mathias Avenue between Millgrove Drive and Mckean Way

3.2.3 Church Road between Queen Street and King Street

Located at City Centre, Church Road connects Calahoo Rd (arterial road) and King St. (collector road) thru the City Centre. The segment between King Street and Queen Street is 350 m long and has a variety of residential typologies from old single-family bungalows, to multi-family medium density (duplexes, triplexes) to medium-density 4 story walk-up apartments. It has also a few institutional and commercial uses (i.e. churches, small office space, daycare, strip mall, etc.) along the street and commercial activity nearby. The road has 4 lanes (2 curbside parking, 2 travel lanes). Road alignment is straight. The section of study has two relatively short segments (160 m) between the Queen Street and Main Street and Main Street and King St. Both intersections are stop controlled. Traffic activity and parking occupancy appears moderate due to variety of housing typologies, densities, and the proximity to the core commercial and institutional area. 1m sidewalk on either side of the street are available and appear winter maintained.

Figure 9. Church Road between Queen Street and King Street

3.2.4 Mohr Avenue between Spruce Glen and Queen Street

Mohr Ave. located on the northwest edge of the City Centre Area is a two-lane (approx. 6 m wide) local access road to multi-family medium density residential duplexes to the north of the street. Access to/from south of the street is fenced off from an adjacent high-density condominium complex (Windsor Estates). The road west end is closed to vehicular traffic to Callahoo Rd thus only pedestrians and cyclist are allowed. There are no sidewalks on either side of the road. Curbside parking is not allowed due to the narrow carriage way, presumably restricted to always allow emergency vehicles access. Traffic activity appears to be low. Anecdotally, there is a 15 kph posted speed limit sign right below a one-way sign at the entrance to the Spruce Glen roadway.

Figure 10. Mohr Avenue between Spruce Glen and Queen Street

3.2.5 Saskatchewan Ave between Commerce Road and Canada Post

Located within the Spruce Grove Industrial area, Saskatchewan Ave is a paved 2-lane (with side ditches for storm runoffs) industrial collector road, providing property access and vehicular connectivity to industrial uses in and around the area. It connects to Golden Spike Road (arterial) to the west and Diamond Ave (collector) to the north. It features two wide travel lanes, no curbs and gutters, no sidewalks or bicycle intended facilities or signage. Thus, the road is largely intended for commercial trucks and vehicle movement. Wide commercial driveways (9 m or more) connect directly to the road from each industrial property along the road on either side. Traffic activity appears moderate due to the variety of commercial/industrial uses, office space and other facilities including Canada Post, automotive services, resources industrial facilities, and more.

Figure 11. Saskatchewan Ave between Commerce Road and Canada Post

3.2.6 Madison Crescent between Campsite Road and east end road bend

Located within the Madison Industrial area, Madison Crescent is a relatively narrow 2-lane (with side ditches for storm runoffs) industrial road, likely an older standard than newer industrial roads (i.e., Saskatchewan Ave). Pavement surface appears aged and decayed (i.e., chipseal). The road provides property access and vehicular connectivity to mostly light industrial uses and storage facilities. It connects to Campsite Road (arterial) to the west and Diamond Ave (collector) to the south. It features two travel lanes, no curbs and gutters, no sidewalks or bicycle intended facilities or signage. Thus, the road is largely intended for commercial trucks and vehicle movement. Wide commercial driveways (9 m or more) connect directly to the road from each industrial property along the road. Traffic activity appears low as uses are mostly light industrial and storage facilities.

Figure 12. Madison Crescent between Campsite Road and east end road bend

3.2.7 McLeod Avenue between Queen Street and King Street

McLeod Ave runs thru the heart of City Centre. The segment between King Street and Queen Street is approximately 350 m long, serving adjacent mixed-use commercial, retail sales, service centers and restaurants. Land uses are organized in small blocks within a grid road system. The intersection at Queen St. and at Main St. are unsignalized (all-way stop) while the intersection at King St. is signalized. There is drive-in angle parking on both sides of the streets all along the corridor as well as small private parking lots at some commercial properties. Parking occupancy and traffic activity are moderate. A few institutional uses are also present (i.e., churches, public park, daycare, public services, etc.). The road has 2 travel lanes and angle parking lanes on either side. Road alignment is straight. Narrow sidewalks exist on both sides of the street. The road is intersected by numerous driveways connecting directly. Half or the carriageway (north side) was closed during site visit due to ongoing construction. The construction on this street involves the median down the middle, parallel parking on both sides, protected crossings with road bump outs and a widened sidewalk.

Figure 13. McLeod Avenue between Queen Street and King Street

3.2.8 Virginia Avenue between Ventura Street and Vernon Street

Located in the Spruce Village residential neighborhood. The neighborhood offers a combination of low density (detached single family) and medium density (townhouses, duplexes) residential options. Virginia Ave. is a local neighborhood road with two-way travel middle lane and parking lanes on either side. Single-family homes on the north side have direct driveway access to parking garages onto the street. Medium density residential properties on the south side do not have driveway access onto the street but via back alleys. 1.5m sidewalk is provided on the south side of the street all long the roadway and connected further west to the regional trail along Century Road. The segment has four unsignalized intersection. Traffic and parking activity is low due mostly to the residential nature of the street. Sightlines restricted at intersection with Spruce Village Drive due to street parking close to intersection. Vehicles along Spruce Village Drive appear to be travelling at or near 50km/hr (winter observation). Pedestrian crossing signs are installed at the Virginia Loop crossing near the park.

Figure 14. Virginia Avenue between Ventura Street and Vernon Street

3.2.9 Langley Crescent between Lakeland Drive and Lakeland Drive

Located in the Lakewood residential neighborhood in the southeast end of the City adjacent to Century Crossing large commercial district nearby to the south. The street is located in the residential neighborhood connected to a main collector road (Lakeland Dr.). It is a looping road connected to either end to Lakeland Dr. The street is also adjacent to the Lansdowne Park with sport fields and playground. As with most local roads in the City, the cross section includes one two-way travel middle lane and parking lanes on either side. Roller curbs and gutter on both sides and a mono-walk on one side of the street. Most houses have direct driveway road access to front garages. Road widens at street bends and corners. Parking and traffic activity is low due to the residential nature of the street and limited connectivity to other roadways.

Figure 15. Langley Crescent between Lakeland Drive and Lakeland Drive

3.2.10 Fifth Ave between King Street and Oatway Street

Fifth Ave. has two distinctive segments, one segment within the Centre Centre in the proximity to King Street; and a second segment within the Broxton Park residential neighborhood. On the City Centre segment, the road is has two travel lanes and parking is not allowed except for an offset row of angle parking adjacent to the public library on the south side of the road across the firehall. Sidewalks on both sides of the streets. On the Broxton Park residential segment, the road transitions to a standard local residential road with one travel middle lane and curbside parking lanes on either side. 1m mono-walk adjacent to the street on the north side of the road. All single-family houses have direct driveways to their front garages. Due to the proximity to schools and parks in the area, there are two marked pedestrian crosswalks, one near the Broxton Park and one near Eccles Crescent leading to a public walkway that connect to the schools to the south. This is likely a frequent walking route to from the schools nearby for most students within the Broxton Park neighborhood. Traffic and parking activity appear moderate on the City Centre segment while low in the residential segment.

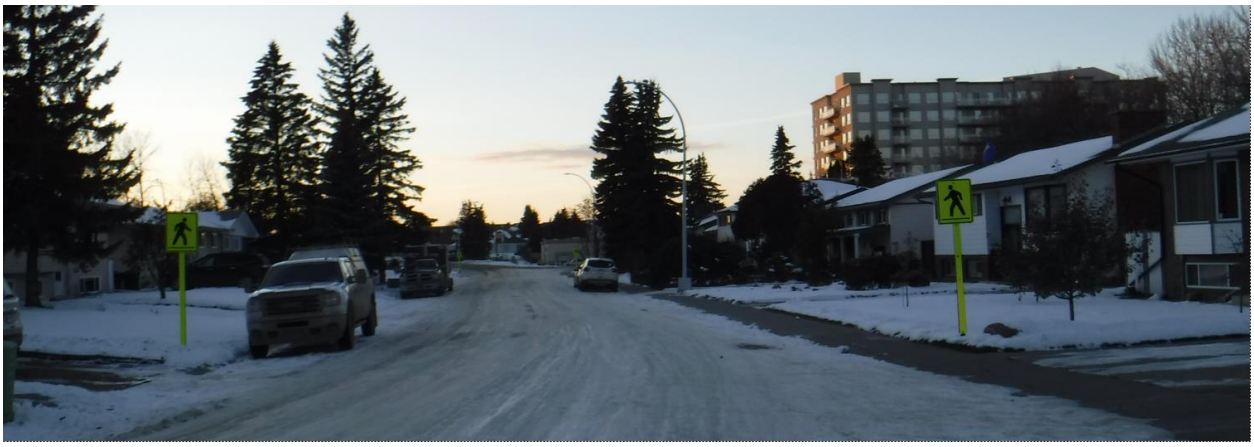


Figure 16. Fifth Ave between King Street and Oatway Street

3.3 Local Roads Risk Assessment

According to NACTO guidelines, two primary factors determine how frequently potential conflicts between motor vehicles and people walking or bicycling arise on the street: Modal Mixing and Crossing Point Density. The degree of Modal Mixing (level of separation between modes) indicates how much physical separation the street offers people walking, biking, and rolling along the street. The Crossing Point Density is a proxy indicator of how closely spaced intersections and other crossing (i.e., driveways) locations are. The guide provides sample street illustrations under various urban environments to contextualize what is categorized as low, moderate and high-density conflict streets/areas.

Activity levels influence the rate at which potential conflicts occur at any given site on the street. Activity can be measured directly where data is available, or through site observations, land use and transportation network proxies. The guide also provides sample street illustrations under various contexts to contextualize what is low, moderate, and high activity levels.

Conflict Density and Activity Level checklists are included in Appendix D. Checklists are a starting point for analyzing how dense conflicts are on a given street and how active that street is, in order to determine a safe speed limit for a street. The table below summarizes the results of the review for each sample street, highlighting the recommended maximum safe speed under the subject conditions.

TABLE 3. RECOMMENDED MAXIMUM SAFE SPEEDS FOR THE REVIEWED LOCAL ROAD SEGMENTS

Road	From	To	Conflict Density	Activity Level	Recommended Max. Safe Speed
Beverly Avenue	Blairmore St	Benton Street	Moderate	Low	40 kph
Mathias Ave	Millgrove Dr	Mckean Way	Moderate	Low	40 kph
Church Road	Queen St	King St	Moderate	Moderate	40 kph
Mohr Ave	Spruce Glen	Queen St	High/Moderate	Low	40 kph
Saskatchewan Ave	Commerce Rd	Canada Post	High	Low	40 kph
Madison Crescent	Campsite Rd	At road bend	High	Low	40 kph
McLeod Ave	Queen St	King St	Moderate	Moderate	40 kph
Virginia Ave	Ventura St	Vernon St	Moderate	Low	40 kph
Langley Crescent	Lakeland Dr	Lakeland Dr	Moderate	Low	40 kph
Fifth Ave	King St	Oatway St	High/Moderate	Moderate	30 kph*

* 30 kph recommended due to the proximity to schools, lack of sidewalks on both sides, public library, and retail nearby, cyclist on the road (Strava), and likely being part of a walking school routes for catchment students in and around the neighborhood. Also, King Street concentrates several schools, and institutional uses and parks plus being relatively close to downtown.

The analysis show that under a wide variety of operational conditions, physical characteristics and land use contexts, all local roads examined can be recommended for a lowered 40 kph speed limit. A 40 kph speed limit on local streets supports safe movement and contextually appropriate design on the majority of local city streets. Since minor streets tend to have either very low volumes or operate at the speed of the most cautious driver, the city of Spruce Grove is advised to apply a 40 kph blanket speed limit to all local streets as a default, and if required, apply exceptions on a case-by-case basis.

4. School Zones and Playground Zones Review

The Alberta Infrastructure and Transportation Guidelines for School and Playground Zones and Areas (hereafter the guidelines) was created to promote uniformity in the establishment, signage, and marking of Alberta school and playground zones and areas. The guidelines provide a systematic, objective, and quantitative procedure for assessing the need for a school and playground zone or area.

Once a playground zone or area is established, it should be signed and marked in a way consistent with the desired objectives and the roadway context. The differences between playground areas and zones should be noted: playground areas are generally equipped with warning signs near the roadway where there is a possibility of children entering the roadway, while playground zones should be more comprehensively equipped with warning signs and speed limit signs, e.g., 30 km/h. The signing and marking of playground areas/zones should be consistent with the principles of the Manual of Uniform Traffic Control Devices for Canada (MUTCDC). The layout of the playground areas/zones signages can be as follows:

- The WC-3 sign of MUTCDC should be placed at the start of playground areas;
- Playground zones should also contain an RB-1 (full-size speed limit sign) below the WC-3 sign, displaying the speed limit at the start of the zone; the other RB-1 sign at the end of the zone, reinstating the original speed limit (or for local roads only, the END PLAYGROUND ZONE sign, yellow in colour); the hours of effectiveness (mandatory if different from the Bylaw requirement and optional if same as the Bylaw requirement). The hours can be displayed on a tab below the speed limit sign.

FIGURE 17. SAMPLE SIGNAGES FOR SCHOOL AND PLAYGROUND AREAS/ZONES

The purpose of this section is to summarize the review process and findings on the City's existing School and Playground Zones/Areas using the Guidelines and providing recommendations for the City's consideration.

4.1 School Zone/Area Warrant Analysis

The School Zone Input Worksheet of the Guidelines provides a quantitative assessment of the need for a school zone or area. A total score of 100 points is available to mark based on six weighted categories for school type, school fencing, adjacent roadway classification, property line separation, school entrance features and presence of sidewalks. The school zone scoring matrix is provided in the table below.

TABLE 4. SCHOOL ZONE WARRANT ANALYSIS RESULTS MATRIX

Total Score	School Area or Zone?
0 – 40	Nothing
41 – 64	School Area
65 – 80	School Area or School Zone*
81 – 100	School Zone

* Local conditions must be considered in detail in order to determine the appropriate treatment. Wherever possible, mitigation measures should be explored that would reduce the score so that marginal school zones can be avoided. The reasons for the final decision should always be documented.

4.1.1 School Type

Children of Elementary school age, when without parental supervision, are typically considered to be the most vulnerable due to their limited abilities to understand and anticipate vehicular traffic movements and their tendency to accidentally enter the roadway. Children of high school age are typically better able to understand traffic and control their own movements. School Zones or Areas are unnecessary at post-secondary institutions.

4.1.2 Fencing

Fencing can significantly reduce the need for a School Zone, acting as a physical barrier that can prevent errant movements onto the roadway. The effectiveness of fencing depends on its traversability, i.e., how easily it can be bypassed or traversed. The traversability of fencing is governed by the extent of fencing between the roadway and the school, the effectiveness of the school's internal pathway system in guiding children to a safe opening in the fence, and the height and type of fencing. Fully traversable describes fencing that is absent or easily traversed. Partially traversable can describe fencing that is low-mounted or has several openings (or, for example, widely spaced trees). Non-traversable describes high-mounted fencing with limited openings at defined points.

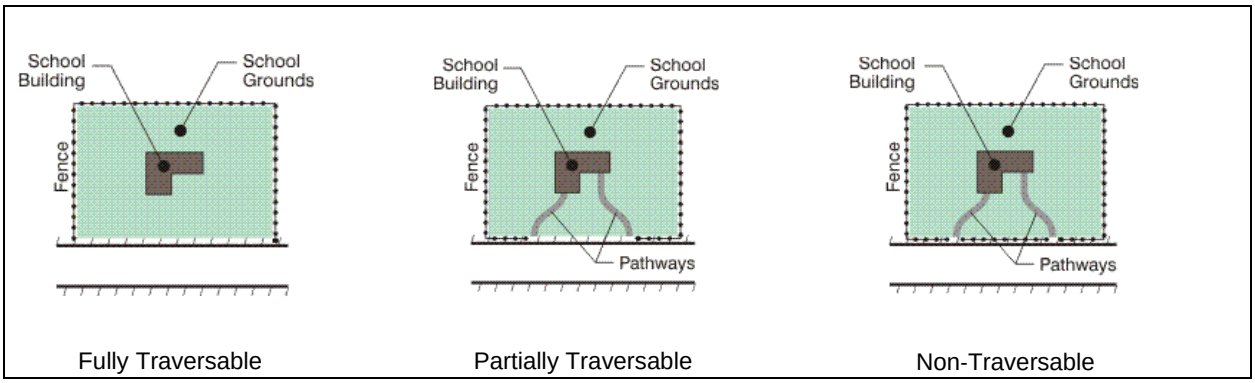


Figure 18. Illustrations of School Fencing

4.1.3 Road Classification

The design classification system used in the Geometric Design Guide for Canadian Roads (TAC 1999) separates roads on the basis of differences in land service and traffic service. The terms “rural” and “urban” refer to the predominant characteristics of the adjacent land use and not only to jurisdictional boundaries or features of typical cross sections. The road classification criteria for the evaluation procedure that follows are consistent with the design classification system described in the Geometric Design Guide for Canadian Roads.

Arterial roads and expressways/freeways are typically multi-lane roads that carry high volumes of traffic, including trucks, and have posted speed limits of 50 km/h or greater. Collector roads are usually narrower and lower in traffic volumes and provide direct frontage to developments, including schools. Local roads are often still narrower and are designed for lower speeds. School Zones should be avoided on expressways/freeways and arterial roads. They can appear to motorists as contradicting the roadway function and hence may be unexpected and disrespected. School Zones can sometimes appear to provide children and parents with a false sense of security on a potentially hazardous roadway.

4.1.4 Property Line Separation

A school typically abuts at least one roadway. If the school is located near an intersection, it may also be located close to an intersecting roadway. When the need for a school zone on the intersecting roadway is assessed, the separation between the property line of the school and the roadway should be considered. The separation influences the likelihood of children entering the roadway, particularly if it is unfenced. A roadway that is separated from the school grounds by only a sidewalk or fence abuts the roadway. A school that is separated from the intersecting roadway may or may not be within 50 metres. If it is located within 50 metres, there is a greater likelihood that children may enter the roadway. The school property line represents the most objective indicator of the point where school activity involving children begins. If it is known that the property line is located well before the activity begins, then the latter can be used.

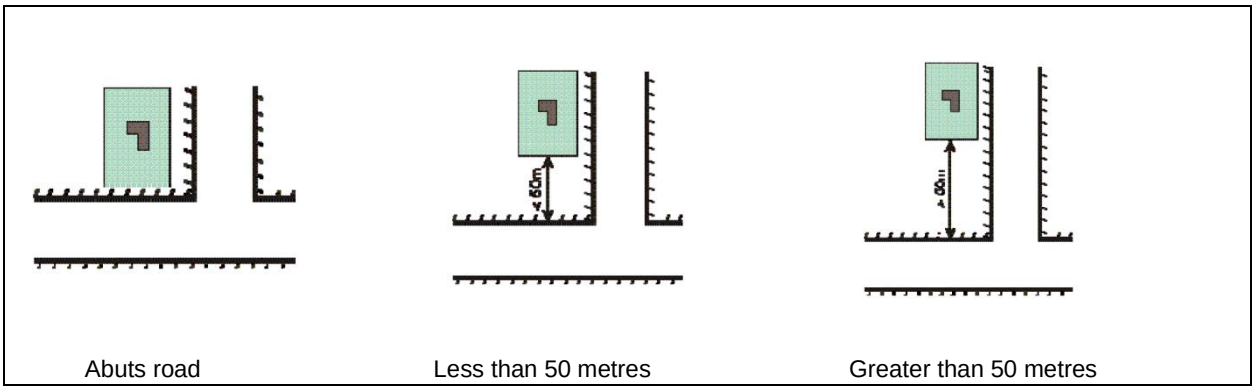


Figure 19. Illustrations of School Property Line Separation

4.1.5 School Entrance

A school entrance can be a driveway to the school, the closest point along the road to the school's main door, or a designated on-street pick-up and drop-off area. The school entrance becomes a focal point of congestion and pedestrian activity, including vehicle turning movements at the driveway, maneuvers within the parking lot, stoppages on the roadway and children crossing the road, particularly during pick-up and drop-off times. Where a school has multiple access points from the road, the activity is typically concentrated at one entrance, referred to as the main entrance. A secondary entrance, if it exists, typically has far less activity than the main entrance.

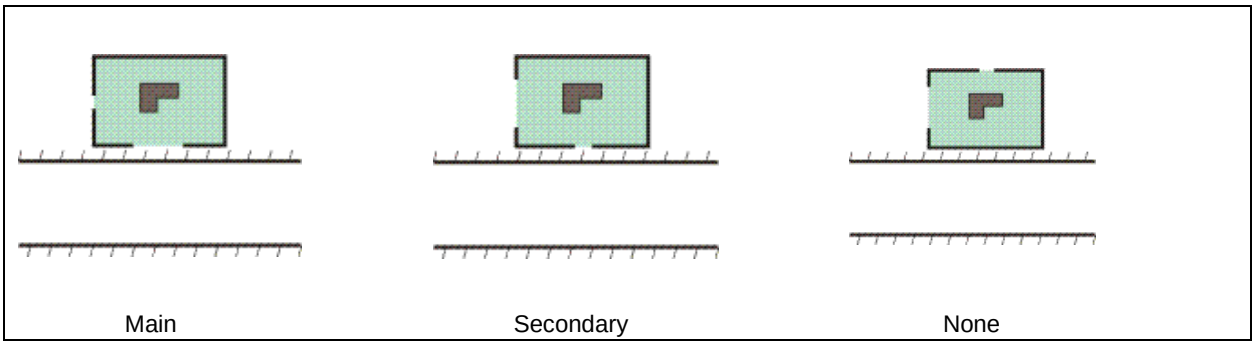


Figure 20. Illustrations of School Entrances

4.1.6 Sidewalks

The purpose of sidewalks is to provide safe conveyance of children between the school grounds or opening in the fence and a defined crossing point on the roadway or to provide a link to the surrounding sidewalk network further from the school grounds. If sidewalks are provided between the school and the roadway, children are less likely to walk in the roadway. In rural areas, while raised curb sidewalks are rarely provided, wide shoulders or unpaved pathways or walkways are assumed to serve the same function as a sidewalk (although shoulders are not provided for this purpose).

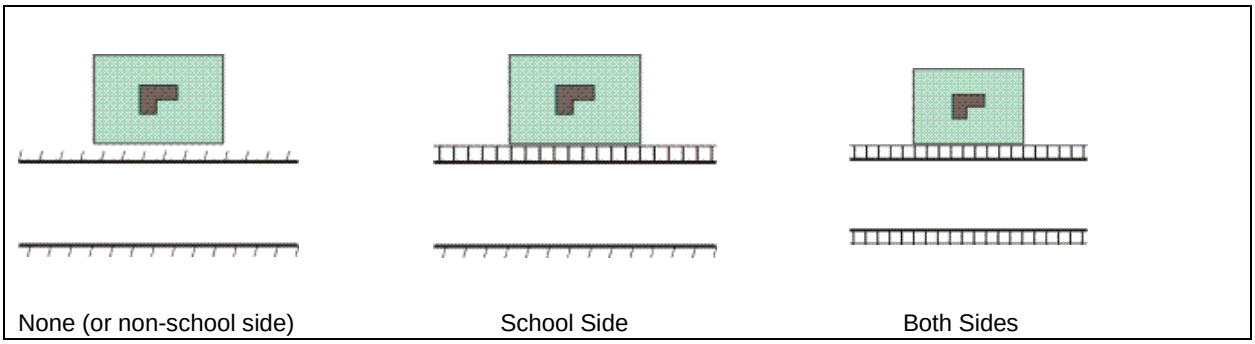


Figure 21. Illustrations of School Sidewalk Locations

4.1.7 School Zone Warrant Worksheet

A warrant worksheet is designed to systematically consider the above six criteria and assess the provided list of schools in Spruce Grove in order to establish the need for a School Zone or School Area. The procedure assigns a Maximum Point Value (MPV) to each criterion, reflecting its relative importance. It also assigns a weighting factor (WF) to each selection, with the higher values indicating a greater need for an Area or Zone. The result of the scoring is a total score out of 100.

TABLE 5. SAMPLE OF SCHOOL ZONE ANALYSIS WARRANT

School Name					
School Address					
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per AT Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial / Freeway	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00	1	
		School Side	0.60		
		Both Sides	0.00		
					5
				TOTAL SCORE	100
				RESULT	School Zone

Note: “1” is inputted into the specific cell of the calculation table for each criterion when the description best represents the subject school/road conditions.

4.1.8 School Zone Warrant Analysis and Result

The warrant analysis is applied to the list of schools provided by the City. The table below summarizes the school analysis results. The warrant worksheet of each specific school can be found in Appendix E.

TABLE 6. SUMMARY OF SCHOOL ZONE WARRANT ANALYSIS RESULT

#	School Name	Grade	Address	Current School Area/Zone (Google Street View)	Warrant Score	Warrant Result	Note
1	Brookwood School	K-grade 4	460 King Street	School Zone	65	School Area or School Zone	Brookwood School and Woodhaven Middle School are adjacent. The current School Zone setting is appropriate
2	Woodhaven Middle School	Grade 5-9	475 King Street	School Zone	51	School Area	
3	Copperhaven School	K-grade 9	151 Grove Drive West	School Zone	83	School Zone	
4	Greystone Centennial Middle School	Grade 5-9	130 Greystone Drive	School Zone	43	School Area	School Zone is suggested to be remained considering speed reduction benefits
5	Prescott Learning Centre	K-grade 9	340 Pioneer Road	School Zone	65	School Area or School Zone	
6	Ecole Broxton Park School	K-grade 9	505 McLeod Avenue	School Area	73	School Area or School Zone	
7	Millgrove School	K-grade 4	851 Calahoo Road	School Area	67	School Area or School Zone	
8	Spruce Grove Composite High School	Grade 10-12	1000 Calahoo Road	School Area	43	School Area	
9	St. Joseph Catholic School	K-grade 4	195 Weston Dr	School Area	70	School Area or School Zone	
10	St. Peter the Apostle Catholic High School	Grade 9-12	10 Harvest Ridge Dr	School Area	53	School Area	
11	St. Thomas Aquinas Catholic School	Grade 5-8	381 Grove Dr W	School Area	51	School Area	St. Thomas Aquinas Catholic School and St. Marguerites Catholic School are adjacent
12	St. Marguerites Catholic School	K-grade 4	395 Grove Dr W	School Area	57	School Area	
13	Living Waters Christian Academy	K-grade 12	5 Grove Drive W	School Area	57	School Area	

It can be found that the existing setting of School Zone or Area in Spruce Grove is generally aligned with the warrant analysis. It is worth noting that the Warrant recommends Greystone Centennial Middle School (see Figure 22) as a School Area instead of a School Zone. However, for the considerations of speed reduction and safety improvement, the current school zone is suggested to be remained.

Figure 22. Street View of Greystone Centennial Middle School (June 2022)

4.2 Playground Zone/Area Warrant Analysis

The Playground Zone Input Worksheet of the Guidelines provides a quantitative assessment of the need for a playground zone or area. Similar to the school zone, a total score of 100 points is possible based on six weighted categories, including playground type, road classifications, fencing, property line separation, playground entrance and presence of sidewalks.

TABLE 7. PLAYGROUND ZONE WARRANT ANALYSIS RESULTS MATRIX

Total Score	Area or Zone?
0 – 40	Nothing
41 – 80	Playground Area
81 – 100	Playground Zone

4.2.1 Playground Type

The Playground Type reflects the likely level of utilization of the playground facility and its exposure to the roadway. Playgrounds that have more equipment (higher capacity), that are part

of a field and that are not enclosed are more likely to warrant a reduced speed zone. Outdoor facilities include play areas with play equipment, sports fields, ball diamonds, basketball courts, tot lots and sandboxes. Enclosed indoor facilities can include lacrosse boxes, skating rinks and swimming pools. The need for playground areas or zones increases with the likely exposure of children to traffic, which in turn is a function of the capacity of the playground. This can be estimated according to the capacity of the playground equipment provided in the playground. Single-unit equipment is defined as a standalone piece, not connected to other equipment. Several single-unit pieces of equipment are often combined into one custom playground equipment. Commercial playground equipment manufacturers typically specify the number of play activities, suitable age range and capacity (number of children) for custom equipment. Where it is not specified, the capacity of the playground equipment should be judged based on the content, safety, and likely maximum usage during normal use. Where specific and special local conditions apply, there may be a need to provide a playground area or zone in the absence of playground equipment. The need should be evaluated on a case-by-case basis, such as by conducting a survey of the number of children using the open space or playing field. The road jurisdiction should document the specific reasons so as not to allow all local grass fields to become candidates for playground areas or zones.

4.2.2 Road Classifications

Playground Zones should be avoided on higher roadway classifications. They can appear to motorists as contradicting the roadway function and may be unexpected and disrespected. They can sometimes provide children and parents with a false sense of security on a potentially hazardous roadway.

4.2.3 Fencing

The presence of fencing can significantly reduce the need for a Playground Zone. Fencing acts as a physical barrier that prevents errant movements of children onto the roadway. For the purpose of this evaluation, fencing can be defined as any type of physical barrier between the play facility and the roadway. If a play area with equipment is the focal point of activity within a much larger field, it may also be appropriate to consider the presence of fencing around the play area itself, particularly if fencing is not provided along the roadside.

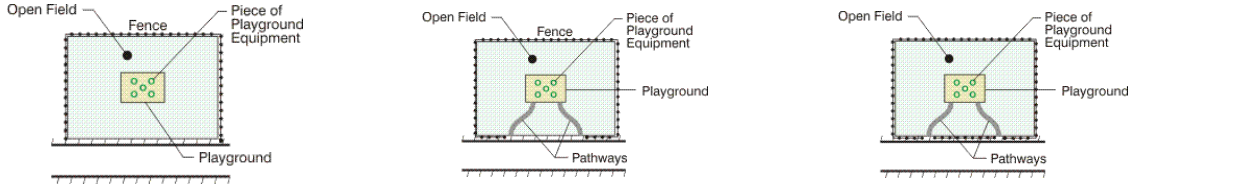


Figure 23. Illustrations of Playground Fencing

4.2.4 Property Line Separation

A playground often abuts at least one roadway. It may also be close to an intersecting roadway. The separation between the property line of the playground and the intersecting roadway influences the likelihood of children entering the roadway, particularly in the absence of fencing. For a playground with play equipment, the distance between the play equipment and the roadway

should also be considered. A roadway that is separated from the playground by only a sidewalk or fence is said to be about the roadway. A playground that is separated from the roadway by other land use may or may not be located within 50 metres. If a play area with equipment is the focal point of activity within a much larger field, it may also be appropriate to consider the separation between the roadway and the play area itself. While the property line represents the most objective indicator of the point where activity involving children begins, if it is known that the property line is located well before the activity begins, the distance between the intersecting roadway and the point where playground activity involving children begins may be considered for the evaluation procedure.

4.2.5 Playground Entrance

A playground entrance can be a driveway to the playground, the closest point along the road to an indoor facility's main door, or a designated on-street pick-up and drop-off area. The playground entrance can become a focal point of congestion and pedestrian activity, particularly during special events. Where a playground has multiple access points from the road, the activity is typically concentrated at the main entrance than the secondary entrance(s). For a playground that is situated behind a school and can only be accessed from the front of the school, the playground can be said to have no entrance from any of the surrounding roadways. For playgrounds that are unfenced between the play area and the roadway, it can be said to have a main entrance along the subject roadway.

4.2.6 Sidewalks

The purpose of sidewalks is to provide safe conveyance of children between the playground or opening in the fence to a defined crossing point on the roadway or a link to the surrounding sidewalk network further from the playground. If sidewalks are provided between the playground and the roadway, children are less likely to walk in the roadway.

4.2.7 Playground Zone Warrant Worksheet

Similar to the school zone analysis, a warrant worksheet is designed for playground zones to systematically consider the above six criteria. The list of the playground zones in Spruce Grove is provided by the City.

TABLE 8. SAMPLE OF PLAYGROUND ZONE ANALYSIS WARRANT

Playground Name					
Playground Address					
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00	1	
		Playground Side	0.40		
		Both Sides	0.00		
					5
				TOTAL SCORE	100
				RESULT	Playground Zone

Note: "1" is inputted into the specific cell of the calculation table for each criterion when the description best represents the subject school/road conditions.

4.2.8 Playground Zone Warrant Analysis and Result

The warrant analysis is applied to the City's playground zone list. The table below summarizes the playground zone analysis results. The warrant worksheet of each specific playground zone can be found in Appendix F

TABLE 9. SUMMARY OF PLAYGROUND ZONE WARRANT ANALYSIS RESULT

#	Playground Name	Address	Type	Age Group	Capacity	Current School Area/Zone	Warrant Score	Warrant Result	Note
1	Westbend Park - WestBend St	25 Westbend St	Play Equipment	5-12 years old	30-35	Playground Zone	97	Playground Zone	
	Westbend Park - Westcove St	25 Westbend St	Play Equipment	5-12 years old	30-35	Playground Zone	95	Playground Zone	
2	Heatherglen Cres	Heatherglen Cres	Play Equipment	5-12 years old	30-35	Playground Zone	93	Playground Zone	
3	McKean Park	43 McKean Way	Play Equipment	5-12 years old	30-35	Playground Zone	100	Playground Zone	
4	Woodside Park - Wascana St	4 Wascana St	Sports Field			Playground Zone	53	Playground Area	The Warrant suggests Playground Area instead of Playground Zone. For the considerations of safety and speed reduction, the current Playground Zones of Woodside Park is suggested to be remained
	Woodside Park - Westview Cres	4 Wascana St	Sports Field			Playground Zone	58	Playground Area	
	Woodside Park - Woodside Cres	4 Wascana St	Play Equipment	5-12 years old	30-35	Playground Zone	77	Playground Area	
5	Windermere Park	Windermere Dr	Play Equipment	2-12 years old	15-20	Playground Zone	97	Playground Zone	
6	Kenton Way Park	33 Kenton Way	Play Equipment	5-12 years old	15-20	Playground Zone	97	Playground Zone	
7	Beechmont Park	21 Beechmont Ave	Play Equipment	5-12 years old	30-35	Playground Zone	100	Playground Zone	
8	Harvest Ridge Park	Harvest Ridge Drive	Play Equipment	2-12 years old	30	Not Marked	75	Playground Area	A Playground Area is suggested for Harvest Ridge Park
9	Henderson Park	201 Harvest Ridge Drive	Play Equipment	2-12 years old	30	Playground Zone	85	Playground Zone	
10	Spruce Ridge Dr Park	311 Spruce Ridge Rd	Play Equipment	2-12 years old	30	Playground Zone	85	Playground Zone	
11	McLaughlin Park	145 McLaughlin Dr	Play Equipment	2-5 years old	15	Playground Zone	85	Playground Zone	
12	Jesperdale Park	1205 Calahoo Rd	Play Equipment	2-12 years old	30	Playground Area	43	Playground Area	
13	Dillon Park	120 Deer Park Blvd	Play Equipment	2-12 years old	30	Playground Zone	85	Playground Zone	
14	Longview Park	Longview Dr	Play Equipment / Sports Field	2-12 years old	30	Playground Zone	67	Playground Area	The Warrant suggests Playground Area instead of Playground Zone. For the considerations of safety and speed reduction, the current Playground Zone of Longview Park is suggested to be remained
15	Hilldowns' Park	Longview Dr / King St	Play Equipment	2-12 years old	30	Playground Area	67	Playground Area	
16	Spruce Village Park	Victoria Ave / Spruce Village Dr E	Play Equipment	2-12 years old	30	Playground Zone	62	Playground Area	The Warrant suggests Playground Area instead of Playground Zone. For the considerations of safety and speed reduction, the current Playground Zone of Spruce Village Park is suggested to be remained
17	Greystone Park	77 Greystone Dr	Play Equipment	2-12 years old	30	Playground Zone	85	Playground Zone	
18	Brookside Park	28 Brookside Cres	Play Equipment	2-12 years old	30	Playground Area	79	Playground Area	
19	McLeod Avenue Park	McLeod Ave	Play Equipment	2-12 years old	30	Playground Area	67	Playground Area	
20	Lakewood Park	Lawson Blvd / McLeod Ave	Sports Field			Playground Area	58	Playground Area	
21	Grove Meadows Basketball Court	20 Grove Meadow Dr	Basketball Court & Open Field			Playground Area	53	Playground Area	

It can be found that the playground settings in Spruce Grove are generally aligned with the warrant analysis. It is worth noting that Woodside Park (Wascana St, Westview Cres and Woodside Cres roadside), Longview Park, and Spruce Village Park are warranted as Playground Area instead of Playground Zone. However, in considerations of enhanced safety and speed reduction, the current Playground Zone settings are recommended to remain in place. In addition, Harvest Ridge Park - currently not marked with any playground sign- is warranted and therefore recommended for a playground area treatment.

Figure 24. Street View of Woodside Park (Wascana St, Westview Cres and Woodside Cres)

Figure 25. Street View of Longview Park (Longview Dr)

Figure 26. Street View of Spruce Village Park (Victoria Ave / Spruce Village Dr E)

Figure 27. Street View of Harvest Ridge Park (Harvest Ridge Dr)

5. Findings and Recommendations

5.1 Identification of Road Segments with Inappropriate Posted Speed Limits and Speed Limit Recommendations

The CGEPSL analysis for collectors and arterials has identified 14 collector roadway segments and 1 arterial roadway segment that are recommended for lower speed limits than the current posted speed limit, as summarized in Table 10. It is worth noting that the CGEPSL's analysis approach has also identified some roadway segments (mostly arterials) where higher posted speed limit could technically be applied. In consideration of Vision Zero principles, and City's goal to apply safe speed limits in light of best practices, such speed limit increases are not recommended and thus have been excluded. Appendix G lists the detailed speed limit analysis results and recommendations for all the collector and arterial roadway segments across Spruce Grove.

TABLE 10. LIST OF COLLECTOR/ARTERIAL ROADWAY SEGMENTS WITH INAPPROPRIATE POSTED SPEED LIMITS (CGEPSL ANALYSIS)

ID	Roadway	FROM	TO	Posted Speed Limit	Recommended Speed Limi
5	Spruce Ridge Drive	SPRING GATE	JENNIFER HEIL WAY	50	40
7	Heatherglen Drive	GROVE DRIVE	HAWTHOME GATE	50	40
21*	Century Road	HWY 16A E	TWR 524	80	70
22	McLeod Avenue	CALAHOO ROAD	KING STREET	50	40
23	Brookwood Drive	KING STREET	CENTURY ROAD	50	40
25	Fairway Drive	LONGVIEW DRIVE	LINKS ROAD	50	40
28	Fieldstone Drive	FIELDSTONE CRESCENT	GROVE DRIVE	50	40
29	Linkside Boulevard	LINKSVIEW DRIVE	LONG VIEW DRIVE	50	40
30	Avonlea Way	ARTHUR WAY	CALAHOO ROAD	50	40
45	McLaughlin Drive	NELSON DRIVE	MCLEOD AVENUE	50	40
47	Aspenglen Drive	AVONLEA WAY	GROVE DRIVE	50	40
61	Weston Drive	NELSON DRIVE	CALAHOO ROAD	50	40
62	King Street	GROVE DRIVE	WOODHAVEN DRIVE	50	40
65	McLeod Avenue	KING STREET	CENTURY ROAD	50	40
75	Calahoo Road	ADELAIDE COURT	LONGVIEW DRIVE	50	40

* This arterial segment has two posted speed limits – 80 km/h for the southern part of the segment and 60 km/h for the northern part of the segment. The segment with the posted speed limit of 80 km/h is recommended to be adjusted to 70 km/h, while the segment with the posted speed limit of 60 km/h is to be remained.

As for local roads, a batch of 10 sample representative local roadways were selected for evaluation in consultation with the City. The local road analysis followed NACTO's Safe Speed Study Approach which revealed that the current 50 km/h speed limit on all sample local roads are inappropriately high. All sample road segments were found eligible for a speed limit reduction as summarized in Table 11.

TABLE 11. SAMPLE LOCAL ROADWAY SEGMENTS WITH INADEQUATE POSTED SPEED LIMITS (NACTO'S SAFE SPEED STUDY APPROACH)

Local Road	From	To	Current Speed Limit	Recommended Posted Speed Limit
Beverly Avenue	Blairmore St	Benton Street	50 kph	40 kph
Mathias Ave	Millgrove Dr	Mckean Way	50 kph	40 kph
Church Road	Queen St	King St	50 kph	40 kph
Mohr Ave	Spruce Glen	Queen St	50 kph	40 kph
Saskatchewan Ave	Commerce Rd	Canada Post	50 kph	40 kph
Madison Crescent	Campsite Rd	At road bend	50 kph	40 kph
McLeod Ave	Queen St	King St	50 kph	40 kph
Virginia Ave	Ventura St	Vernon St	50 kph	40 kph
Langley Crescent	Lakeland Dr	Lakeland Dr	50 kph	40 kph
Fifth Ave	King St	Oatway St	50 kph	30 kph

5.2 Current School/Playground Zone Review

School Zone Review. According to the school zone review and warrant analysis result, in general, Spruce Grove's schools are appropriately set with school zone/area treatments as per Provincial guidelines with one exception. The analysis results for Greystone Centennial Middle School suggests a downgrade from the current school zone to a school area, which would involve the removal of the current 30 km/h speed limit. In light of best practices and vision zero goals, such replacement is not recommended and so the current school zone treatment for Greystone Centennial Middle School should be maintained.

Playground Zone Review. In general, Spruce Grove's playgrounds are appropriately treated under applicable provincial playground settings. The warrant analysis results for Woodside Park, Longview Park, and Spruce Village Park suggest a downgrade to playground area from the current playground zone treatment which would involve the removal of the current 30 km/h speed limit. In light of best practices and vision zero goals, the current playground zone treatment in these parks is recommended to remain. Conversely, the warrant analysis for Harvest Ridge Park -currently unmarked/untreated - recommends implementing playground area treatment signs.

5.3 General Guideline for Posted Speed Limits in School/Playground Zones to Follow for New Development

It is recommended to set the speed limit at 30 km/h for all the school and playground zones. School zone restriction period is recommended to follow the Spruce Grove Traffic Bylaw[9], which regulates that school zone is in effect during the period commencing at 7:30 a.m. and ending at 4:30 p.m. on any day school is held. Regarding playground zones, it is recommended to follow the Traffic Bylaw's regulation that playground zone is in effect during the period commencing at 8:30 a.m. and ending one (1) hour after sunset seven (7) days a week. Outside of the above mentioned effective times for school and playground zones, vehicles must follow applicable posted speed limits.

[9] Traffic Bylaw (sprucegrove.org)

6. Speed Management Implementation Strategy

6.1 Speed Limit Recommendation for Road Segments in the City

The recommended speed limits for arterial and collector roads in Spruce Grove can be found in Appendix G. Figures 28 and 29 below illustrate the current and future recommended posted speed limit for all arterial and collector roadway segments analyzed. Of note, speed limits shown may differ within segments adjacent to schools/playground areas. Applicable existing and future recommended speed limit adjacent to schools and playground should apply.

Figure 28. Current Posted Speed Limit of Spruce Grove Collector/Arterial Roadway Segments

Figure 29. Recommended Posted Speed Limit of Spruce Grove Collector/Arterial Roadway Segments

The speed limit recommendations for the 10 sample of local roads can be referred to Table 11. The analysis shows that under a wide variety of operational conditions, physical characteristics and land use contexts, all local roads examined can be recommended for a lowered 40 kph speed limit.

Therefore, a blanket 40 kph speed limit implementation -unless otherwise posted- on all roadways within the municipality should be applied in support of Vision Zero and Safe Systems goals. As shown in Figure 29, some arterial and collectors roads could still be posted at higher speed limits on a case-by-case basis.

As previously noted, similar speed blanket reduction approached have been recently implemented in Edmonton and various other municipalities in the Province.[10]

[10] https://open.alberta.ca/dataset/faeafa6d-6a8e-4fac-b6dd-fc5ead9be17a/resource/f5a41c92-4ddf-4eaa-a0a5-6f0d3833d952/download/trans-community-speed-limit-information-sign-2015-12.pdf Edmonton and several towns and villages have passed bylaws to lower the statutory standard maximum 50 km/h speed limit for their roadways within an urban area to a maximum 40 km/h or 30 km/h as a blanket speed reduction for the community

6.2 Cost Estimation for Updating the Recommended Speed Limits

As discussed, a blanket 40 kph speed limit implementation -unless otherwise posted- on all roadways within the municipality is recommended.

Alberta Transportation stipulates that where a municipality prescribed a speed limit that is different from the statutory standard maximum 50 km/h speed limit in an urban area, the municipality must erect signs along those roadways indicating the speed limit as prescribed.[11]

It is recommended to update the current posted speed limit and apply the recommended speed limits to the road segmentations with inappropriate posted speed limit identified. For efficiency and economy considerations, existing poles will be used wherever possible. Although signage changes will be encouraged to be designed and mounted on existing sign supports and infrastructure, where possible, but new signposts will still be needed in some spots.

It is assumed that for the speed limit sign change of the 15 collector/arterial road segments (see Table 10), the original posts carrying the previous speed limit signs will be retained and reused. The main cost will be from purchasing the new speed limit signs. According to the MUTCD standard, the standard speed limit sign size for normal road is 600 mm * 750 mm (24 in * 30 in)[12]. The typical cost of this kind of sign is around $107 CAD ($ 80 USD[13]) per sign. Assuming each road segment requires at least two speed limit signs at the start of both directions, a total number of 30 speed limit signs will be required. Therefore, the cost for updating the speed limit signs for collectors will be around $3,200 CAD.

A blanket speed limit approach of 40 kph is recommended. In addition to the signs changes noted above, it is recommended that the municipality have Community Speed Limit Information signs as per Provincial recommended standards [14] installed on highways at the corporate limits for informing motorists as they are entering the community. The municipality must obtain permission from Alberta Transportation for the installation of this sign assembly. The standard size of the sign assembly is 1830 mm × 1680 mm. Refer to the AT guidelines for additional information on use and placement.

According to the MUTCD standard, the mounting height of the sign should be at least 1.5 m (5 ft)[15]. The cost of the post is around $18 to $27 CAD ($13 to $20 USD)[16] per foot, with

FIGURE 30. ALBERTA RECOMMENDED COMMUNITY SPEED LIMIT INFORMATION SIGN

[11] https://open.alberta.ca/dataset/faeafa6d-6a8e-4fac-b6dd-fc5ead9be17a/resource/f5a41c92-4ddf-4eaa-a0a5-6f0d3833d952/download/trans-community-speed-limit-information-sign-2015-12.pdf
[12] FHWA - MUTCD - 2003 Edition Revision 1 Chapter 2B (dot.gov)
[13] Speed Limit Signs (ricesigns.com)
[14] Community Speed limit Information Sign https://open.alberta.ca/dataset/faeafa6d-6a8e-4fac-b6dd-fc5ead9be17a/resource/f5a41c92-4ddf-4eaa-a0a5-6f0d3833d952/download/trans-community-speed-limit-information-sign-2015-12.pdf
[15] FHWA - MUTCD - 2003 Edition Revision 1 Chapter 2A (dot.gov)
[16] Manual of Traffic Signs - Costs of Traffic Signs

an average of approximately $23 CAD per foot (normal square tube post). Therefore, the estimated cost of per 1.5 m height post could be 115 CAD each. Together with the new speed limit sign, the cost per set could be around $220 CAD (the cost of speed limit sign - $107 plus the cost of a 1.5 m post - $115).

The reader should be aware that the above is a high-level cost estimation. The installation and maintenance costs are not included. The unit cost of the speed limit signs, post, materials, etc. may have changed substantially since the time of writing.

6.3 Preliminary Traffic Speed Control Signage Recommendations for Future City Developments

The speed review results in this study could provide useful reference to future city developments. It is recommended to continue applying the CGEPSL guideline to assess and select the suitable speed limit for arterial/collector roadway context and apply the NACTO's Safe Speed Study Approach for local/neighborhood road contexts.

Speed Limit signs must be correctly posted to ensure a speed limit is enforceable and to encourage compliance. The selected signage will be regulatory style signs in accordance with Alberta Transportation and MUTCD standards, with black text on white background, since they will be alerting motorists to the upcoming legal change in speed limits by law.

The latest Alberta Transportation Alberta Infrastructure and Transportation Highway Guide And Information Sign Manual[17] should be followed. Alternatively, The MUTCD[18] standard is also recommended for guidance and options for speed limit signing. According to MUTCD, the Speed Limit sign shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency. The speed limits shown shall be in multiples of 10 km/h. Regarding the location of speed limit signs, it is recommended to follow the principles of:

- Speed Limit signs, indicating speed limits for which posting is required by law, shall be located at the points of change from one speed limit to another.
- At the downstream end of the section to which a speed limit applies, a Speed Limit sign showing the next speed limit shall be installed. Additional Speed Limit signs shall be installed beyond major intersections and at other locations where it is necessary to remind road users of the speed limit that is applicable.
- Speed Limit signs indicating the statutory speed limits shall be installed at entrances at jurisdictional boundaries. It should be noted that the statutory speed limits are maximum speed limits applicable to a particular class of road and is not to be altered based on this study.

[17] http://www.transportation.alberta.ca/Content/docType233/Production/Guide_info.pdf
[18] FHWA - MUTCD - 2003 Edition Revision 1 Chapter 2B (dot.gov)

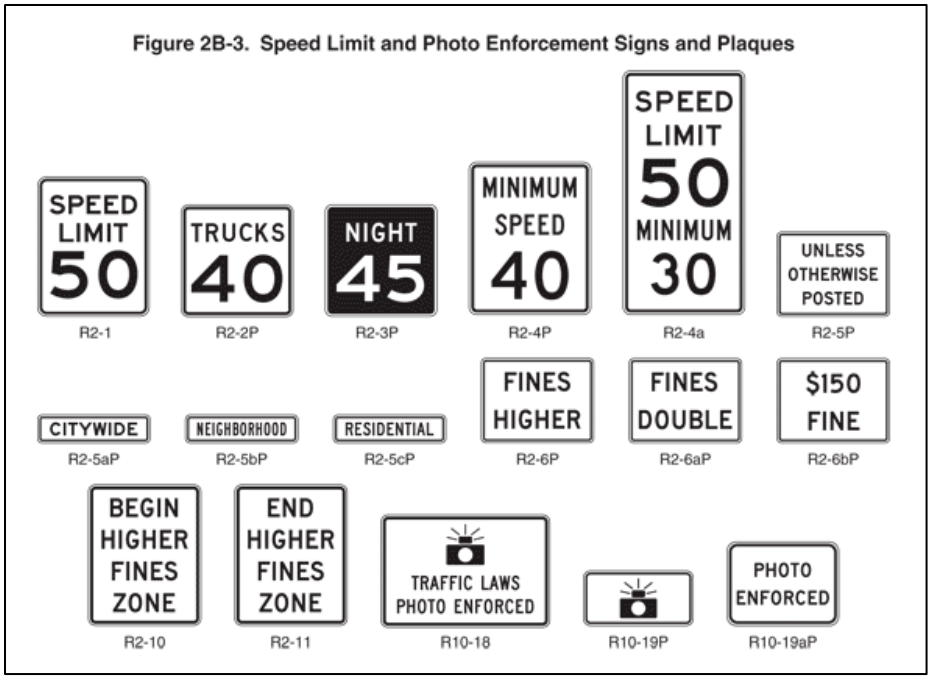


Figure 31. MUTCD 2B-1 Signs Collection for Consideration: STOP, YIELD, Speed Limit, FINES HIGHER, and Photo Enforcement Signs[19]

In addition, A Reduced Speed Limit Ahead sign could be used as a guidance to inform road users of a reduced speed zone where the speed limit is being reduced.

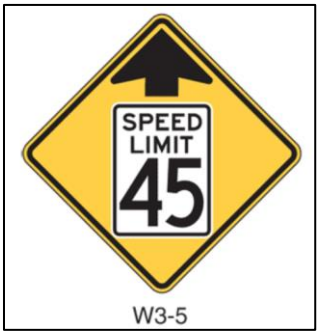


Figure 32. Example of Reduced Speed Limit Ahead sign[20]

It should be noted that this recommendation should be flexible to adjust in the future when appropriate, e.g., following traffic calming or observed change in motorist behavior.

[19] Figure 2B-3 Long Description - MUTCD 2009 Edition - FHWA (dot.gov)
[20] Figure 2C-7 Long Description - MUTCD 2009 Edition - FHWA (dot.gov)

6.4 Additional Measures for School/Playground Zones

Besides the school/playground zone and speed limit signage, it is recommended to further reduce incidents and curb unsafe traffic-related behaviors at school and playground zones to protect vulnerable road users through engineering countermeasures.

6.4.1 Traffic Calming Measures

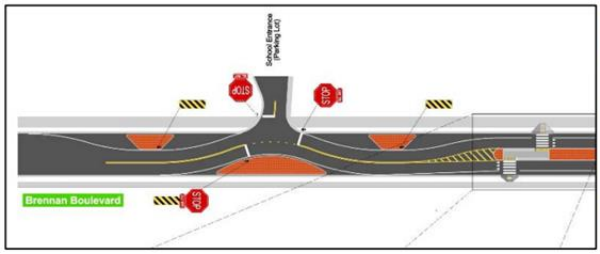
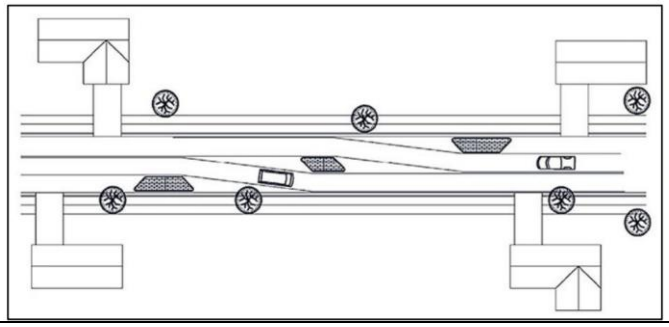
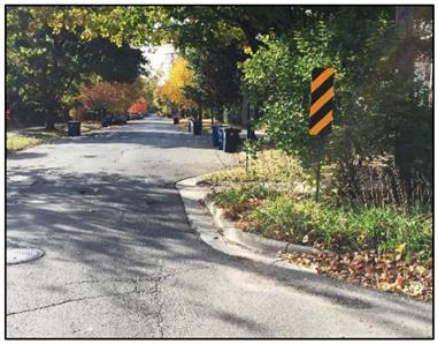
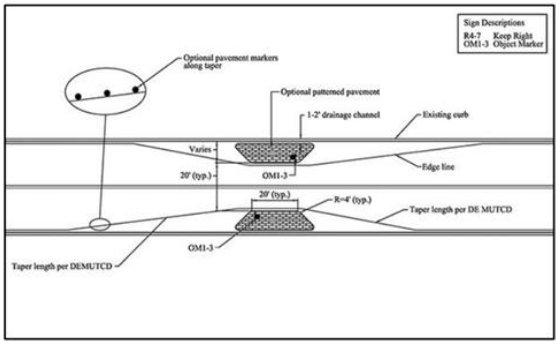
Traffic calming measures could include horizontal deflections e.g., chicane, lateral shift, curb bulge, traffic circle, mini-roundabout, road diet, on-street parking, etc., and vertical deflections e.g., speed hump, speed table and raised crosswalk.

- A chicane (also known as a deviation, serpentine, reversing curve, or twist) is a series of alternating curves or lane shifts that are in a position to force a motorist to steer back and forth out of a straight travel path. The curvilinear path is intended to reduce the speed at which a motorist is comfortable travelling through the feature. The lower speed could, in turn, result in a traffic volume reduction. The chicane curves can be created with a curb extension that alternates from one side of the street to the other.
- A lateral shift is a realignment of an otherwise straight street that causes travel lanes to shift in one direction. The primary purpose of a lateral shift is to reduce motor vehicle speed along the street. A typical lateral shift separates opposing traffic through the shift with the aid of a median island. Without the island, a motorist could cross the centerline in order to drive the straightest path possible, thereby reducing the speed reduction effectiveness of the lateral shift. In addition, a median island reduces the likelihood a motorist will veer into the path of opposing traffic, further improving the safety of the roadway for motorists. To be noted, a chicane can be treated as a variation of a lateral shift that shifts alignment more than once.
- A curb bulge (choker) is the narrowing of a roadway through the use of curb extensions or roadside islands. It can be created by a pair of curb extensions at a midblock location that narrows the street by widening the sidewalk or planting strip at that location. This narrowing is intended to discourage motorist speeding and to reduce vehicle speeds in general. A choker can be located at any spacing desired for traffic calming. A choker is often combined with on-street parking to create a protected parking bay. Landscaping on a choker can make the traffic calming feature attractive and can make it more visible to the motorist. In addition, a choker may be a good location to place a midblock crosswalk (either level with the roadway or as a raised crosswalk) because it shortens the distance a pedestrian walks on the travel way.
- A traffic circle (sometimes called an intersection island) is a raised island, placed within an unsignalized intersection, around which traffic circulates. A circle forces a motorist to use reduced speed when entering and passing through an intersection, whether the vehicle path is straight through or involves a turn onto an intersecting street. A traffic circle can have stop signs or yield signs on the intersection approaches. The primary benefit of a traffic circle is an expected reduction in the number of angle and turning collisions. An additional benefit is that it can slow high-speed traffic at the intersection. A traffic circle can simply be a painted area, but it is most effective when it is defined by a raised curb and landscaped to further reduce the open feel of a street. A traffic circle can be landscaped with ground cover, flowers, and street trees.
- A roundabout is an intersection design that contrasts with designs that require traffic signal control or stop control. A mini-roundabout is appropriate at the intersection of lower classification streets, i.e., collector and local for traffic calming the speed management

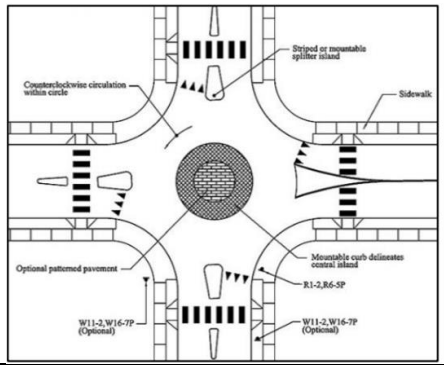
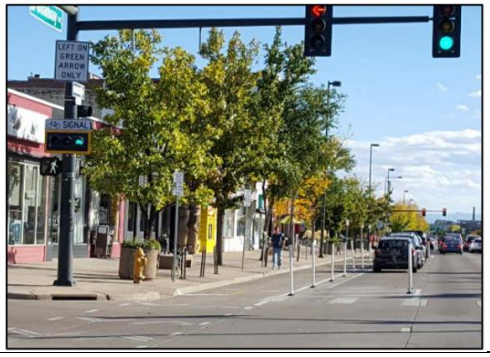
purposes. A mini-roundabout is a raised island, placed within an unsignalized intersection, around which traffic circulates. The center island of mini-roundabout is usually fully traversable.

- A road diet is the conversion of an undivided roadway to a cross-section with fewer or narrower through motor vehicle travel lanes. The most common application is the conversion of an undivided four-lane roadway to a three-lane roadway consisting of two through lanes and a center two-way left-turn lane. The reduction in the number of lanes permits the inclusion of facilities for other road uses, such as bicycle lanes, sidewalks, pedestrian refuge islands, transit uses, and on-street parking.
- On-street parking can effectively narrow the roadway travel lanes by adding side friction to the traffic flow. On-street parking can be allowed on one or both sides of a roadway (parking zones can also be strategically located on alternate sides of a roadway to create a chicane effect). Whether on-street parking can be an appropriate traffic calming measure is a direct function of its actual or potential usage (i.e., parking demand). In order for the presence of on-street parking to be an effective and safe traffic calming measure, it must be occupied with parked vehicles during the time when traffic calming is desired. The different types of on-street parking (parallel and both front-in and back-in angled) have different horizontal width effects and operational effects. Both parallel and angle vehicle parking can be protected through the use of protected parking bays or the use of a complementary traffic calming measure such as a corner extension, midblock choker, or chicane.
- A speed hump is an elongated mound in the roadway pavement surface extending across the travel way at a right angle to the traffic flow. At typical travel speeds along a residential street or in a small commercial business district, a speed hump produces sufficient discomfort to a motorist driving above the speed hump design speed to discourage speeding. It encourages the motorist to travel at a slow speed both upstream and downstream of as well as over the speed hump.
- A speed table is a raised area placed across the roadway designed to physically limit the speed at which a vehicle can traverse it. Like a speed hump, it extends across the travel way. Unlike a speed hump, a speed table has a long enough flat top, typically 3 metres to accommodate the entire wheelbase of most passenger cars. The longer longitudinal depth in the direction of travel enables comfortable and safe vehicle operating speeds that are faster than for a speed hump. It is worth noting that when a speed table is designated as a crosswalk through the use of striping, it is known as a raised crosswalk.
- A raised crosswalk is a variation of a flat-topped speed table. A raised crosswalk is marked and signed as a pedestrian crossing. The height of a raised crosswalk is typically 7.5-15.0 cm above the street level and it is common for a raised crosswalk to be level with the street curb. This height increases the visibility of a pedestrian in a crosswalk to a motorist and it also improves the line of sight for a pedestrian toward an oncoming vehicle. The 3-metre flat top on a typical speed table conforms to a desired crosswalk width. A raised crosswalk improves pedestrian safety by decreasing motorist speed at the crossing.

Table 12. Application Sample of Traffic Calming Measures for School/Playground Zones

Traffic Calming Measures	Sample Application Pictures
Chicane[21]	 
Lateral Shift[22]	 
Curb Bulge[23]	 
Traffic Circle[24]	 

[21] Traffic Calming Fact Sheets - Chicane (ite.org)
[22] Traffic Calming Fact Sheets - Lateral Shift (ite.org)
[23] Traffic Calming Fact Sheets - Choker (ite.org)
[24] Traffic Calming Fact Sheets - Traffic Circle (ite.org)

Mini-roundabout[25]	 
Road Diet[26]	 
On-Street Parking[27]	 
Speed Hump[28][29]	  

[25] Traffic Calming Fact Sheets - Mini Roundabout / Small Modern Roundabout (ite.org)
[26] Traffic Calming Fact Sheets - Road Diet (ite.org)
[27] Module 3: Toolbox of Individual Traffic Calming Measures Part 3 | FHWA (dot.gov)
[28] Traffic Calming Fact Sheets - Speed Hump (ite.org)
[29] Module 3: Toolbox of Individual Traffic Calming Measures Part 2 | FHWA (dot.gov)

Speed Table[30][31]	 
Raised Crosswalk [32]	 

6.4.2 Pavement Marking

On-road pavement markings provide information that would typically be communicated to drivers through posted signage but are instead painted on the roadway to provide a larger image directly in the driver's line of sight. These markings may be used as a gateway to alert drivers they are entering a school zone, school crossing, or neighbourhood. The pavement markings can be in various forms, including:

- **Transverse lane markings**. Transverse pavement markings usually consist of transverse bars or chevrons. The transverse bars are typically spaced to give drivers the perception that they are speeding up. This perception encourages drivers to be aware of their speeds and to slow down. Lane markings can also be used as a way to alert drivers that they are entering a different area such as a community. Lane markings are a low-cost solution and have been used in work zones and along horizontal curves to slow speeds.

[30] Traffic Calming Fact Sheets - Speed Table/Raised Crosswalks (ite.org)
[31] Module 3: Toolbox of Individual Traffic Calming Measures Part 2 | FHWA (dot.gov)
[32] Module 3: Toolbox of Individual Traffic Calming Measures Part 2 | FHWA (dot.gov)

Figure 33. Sample Application of Transverse lane markings (Dragon Teeth – Left[33], Speed Bars[34] – Middle, Converging Chevrons[35] – Right)

- **Surface Treatments**. Coloured surface dressings or textured surfaces are common pavement treatments and are often used in conjunction with gateway or traffic-calming measures to emphasize the presence of speed-reduction regulations. Surface treatments are usually implemented on the full width of roadway and can be done with pavement markings or textured pavement.

Figure 34. Sample Application of Surface Treatments[3637]

- **Pavement marking legends**. Some communities have painted the speed limit on the roadway to remind drivers of the speed limit or to indicate a transition zone. Examples include the set speed limit (e.g., 30 km/h), 'SLOW', or 'School Ahead'.

Figure 35. Sample Application of Pavement Marking Legends [3839]

6.4.3 Speed Display Devices

A speed display device is a pole-mounted device equipped with radar speed detector and an LED display. The devices can detect the speed of an approaching vehicle and display it back to the driver. The objective of the speed display device is to improve road safety by making drivers

[33] File: Dragon's teeth (Road markings) on Lake Albert Road.jpg - Wikipedia
[34] Pavement Markings: Transverse Lane Markings | Center for Transportation Research and Education (iastate.edu)
[35] Ruidoso Traffic Calming Guide (bhinc.com)
[36] European-style traffic-calming treatment used in Dexter, Iowa | Download Scientific Diagram (researchgate.net)
[37] Traffic Calming Devices I Pavement Surface Coatings
[38] City of Peterborough Neighbourhood Traffic Calming Policy and Appendices - April 2021
[39] Bringing Awareness To 30 km/hr Speed Limit With: SCHOOL ZONE SYMBOLS AND TEXTS - Sutton Road Marking

aware of their speed, evoking voluntary speed compliance. Speed display devices are most effective on single lane roads and can be used upstream of staffed speed enforcement.

Figure 36. Sample Application of Speed Display Devices[40][41]

6.4.4 Crossings and Rapid Flashing Beacons

With regards to the pedestrian access points to a school or playground, pedestrians are expected and desired to cross at marked pedestrian crossings at nearby intersections and mid-block crossings. For school crossings, adult school crossing guards can help further improve the road safety of children. The pedestrian crossings to a school/playground walkway entrance could include the following:

- A pedestrian crosswalk is a marked path for people on foot crossing at a roadway intersection controlled by a traffic signal or a stop sign.
- A pedestrian crossover is a marked path, typically not at a traditional intersection, that connects sidewalks or walkways on opposite sides of the street with pavement markings, signages, and/or illumination (push button activated flashing beacons). Pedestrian crossovers are designated areas that allow pedestrians to safely cross a roadway where vehicles must yield to pedestrians when crossing. Crossovers are located at intersections, midblock, and roundabouts with low vehicle speed and low/medium vehicle volumes. A typical application at these crossovers is Rectangular Rapid-Flashing Beacon (RRFB), which are pedestrian-actuated conspicuity enhancements used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks.

Figure 37. Sample Application of RRFB Equipped Crossovers

[40] Radar Speed Signs - Kalitec
[41] Smile for the speed board: New additions to calm traffic in Fernie - The Free Press

Appendix A – ASSESSMENT AND SCORING STANDARD DETAILS OF CGEPSL SPEED LIMIT SETTING CRITERIA

2a) FOR RURAL LAND USE: Identify the risk level for each evaluation criteria

A1. Geometry (horizontal alignment)

Classification	Rural		
All	Higher risk	3	More than 6 curves per kilometre
	Medium risk	2	3 to 6 curves per kilometre
	Lower risk	1	Less than 3 curves per kilometre

A2. Geometry (vertical alignment)

Classification	Rural		
All	Higher risk	3	Frequent steep grades (6% or more on 50% of the section or more)
	Medium risk	2	Some steep grades (4% or more on 50% of the section or more)
	Lower risk	1	Generally moderate grades or flat

An undulating road is considered to have medium risk.

A3. Average Lane Width

Classification	Rural		1 lane per direction	2+ lanes per direction
All	Higher risk	3	Available width is narrow compared to typical roadways with the same road classification	Available width is narrow compared to typical roadways with the same road classification
	Medium risk	2	Available width is similar to typical roadways with the same road classification	Available width is similar to typical roadways with the same road classification
	Lower risk	1	Available width is wide compared to typical roadways with the same road classification	Available width is wide compared to typical roadways with the same road classification

Average lane width = available paved surface width per direction, including shoulders and bicycle lanes, divided by the number of auto through lanes

B. Roadside Hazards

Classification	Rural		
All	Higher risk	3	5 or more hazards per kilometre, or continuous hazards on more than 50% of the segment length, on one or both sides
	Medium risk	2	2 to 5 hazards per kilometre, or continuous hazards on 25 to 50% of the segment length, on one or both sides
	Lower risk	1	Less than 2 hazards per kilometre

" Hazards" refer to any non breakaway fixed object or continuous non recoverable risk located within the clear zone as defined by the TAC Geometric Design Guide for Canadian Roads Table 3.1.3.1.
* A continuous roadside or median barrier along a roadway is considered to have medium risk
Examples of "continuous" hazards: non-recoverable side slopes, rock face, water hazards, row of unprotected trees or utility poles

C1. Pedestrian Exposure (along the side of the road)

Classification	Rural		
All	Higher risk	3	Roadway is used by pedestrians and no pedestrian facilities are provided
	Medium risk	2	Roadway is used by pedestrians and a shoulder or trail adjacent to the roadway and at the same elevation as the roadway is provided
	Lower risk	1	Roadway is used by pedestrians and physically separated pedestrian facilities (sidewalks; trails away from the road) are available; or, roadway has negligible pedestrian demand
Freeways, Expressways, Highways Only	N/A	0	Pedestrians are legally prohibited on the roadway

For Freeways, Expressways, and Highways only, choose risk level "N/A" when pedestrians are legally prohibited on a roadway

C2. Cyclist Exposure

Classification	Rural		
All	Higher risk	3	Roadway is used by cyclists and no road space is allocated to bikes
	Medium risk	2	Roadway is used by cyclists and wide curb lane or shoulder is provided
	Lower risk	1	Roadway is used by cyclists and a designated bike lane is provided; or, roadway is used by cyclist and no road space is allocated to bikes but roadway has very low traffic volumes; or, roadway has negligible cyclist demand
Freeways, Expressways, Highways Only	N/A	0	Cyclists are legally prohibited on the roadway

For Freeways, Expressways, and Highways only, choose risk level "N/A" when cyclists are legally prohibited on a roadway

D. Pavement Surface

Classification	Rural		
All	Higher risk	3	Poor or unpaved / gravel
	Medium risk	2	Fair or rough (significant sections with pot holes, rutting, large cracks, etc)
	Lower risk	1	Good or smooth

E1. Number of Intersections with Public Roads

Classification	Rural
All	Use the evaluation methodology in the TABLES worksheet.

Evaluation methodology is presented in TABLE A.

E2. Number of Intersections with Private Access Driveways

Classification	Rural
All	Use the evaluation methodology in the TABLES worksheet.

Evaluation methodology is presented in TABLE B.

E3. Number of Interchanges

Classification	Rural		
All	Higher risk	3	Interchanges are on average less than 1,000 metres apart
	Medium risk	2	Interchanges are on average 1,000 to 2,000 metres apart
	Lower risk	1	Interchanges are on average more than 2,000 metres apart
	N/A	0	No interchanges

F. On-Street Parking

Classification	Rural		
All	Higher risk	3	Parking permitted all day on one or both sides of the roadway
	Medium risk	2	Parking permitted during part of the day on one or both sides of the roadway
	Lower risk	1	No parking allowed; or parking is permitted but rarely if ever actually utilized
	N/A	0	Parking is legally prohibited

2b) FOR URBAN LAND USE: Identify the risk level for each evaluation criteria

A1. Geometry (horizontal alignment)

Classification	Urban		
All	Higher risk	3	More than 4 curves per kilometre
	Medium risk	2	2 to 4 curves per kilometre
	Lower risk	1	Less than 2 curves per kilometre

A2. Geometry (vertical alignment)

Classification	Urban		
All	Higher risk	3	Frequent steep grades (6% or more on 50% of the section or more)
	Medium risk	2	Some steep grades (4% or more on 50% of the section or more)
	Lower risk	1	Generally moderate grades or flat

An undulating road is considered to have medium risk.

A3. Average Lane Width

Classification	Urban		1 lane per direction	2+ lanes per direction
All	Higher risk	3	Available width is narrow compared to typical roadways with the same road classification	Available width is narrow compared to typical roadways with the same road classification
	Medium risk	2	Available width is similar to typical roadways with the same road classification	Available width is similar to typical roadways with the same road classification
	Lower risk	1	Available width is wide compared to typical roadways with the same road classification	Available width is wide compared to typical roadways with the same road classification

Average lane width = available paved surface width per direction, including shoulders and bicycle lanes, divided by the number of auto through lanes

B. Roadside Hazards

Classification	Urban		
All	Higher risk	3	10 or more hazards per kilometre, or continuous hazards on more than 50% of the segment length, on one or both sides
	Medium risk	2	5 to 9 hazards per kilometre, or continuous hazards on 25 to 50% of the segment length, on one or both sides
	Lower risk	1	Less than 5 hazards per kilometre, any continuous hazards extend for less than 25% of the segment length, or curb and gutter

" Hazards" refer to any non breakaway fixed object or continuous non recoverable risk located within the clear zone as defined by the TAC Geometric Design Guide for Canadian Roads Table 3.1.3.1.
* A continuous roadside or median barrier along a roadway is considered to have medium risk
Examples of "continuous" hazards: non-recoverable side slopes, rock face, water hazards, row of unprotected trees or utility poles

C1. Pedestrian Exposure (along the side of the road)

Classification	Urban		
All	Higher risk	3	Roadway is used by pedestrians and no pedestrian facilities are provided
	Medium risk	2	Roadway is used by pedestrians and a shoulder or trail adjacent to the roadway and at the same elevation as the roadway is provided
	Lower risk	1	Roadway is used by pedestrians and physically separated pedestrian facilities (sidewalks; trails away from the road) are available; or, roadway has negligible pedestrian demand
Freeways, Expressways, Highways Only	N/A	0	Pedestrians are legally prohibited on the roadway

For Freeways, Expressways, and Highways only, choose risk level "N/A" when pedestrians are legally prohibited on a roadway

C2. Cyclist Exposure

Classification	Urban		
All	Higher risk	3	Roadway is used by cyclists and no road space is allocated to bikes
	Medium risk	2	Roadway is used by cyclists and wide curb lane or shoulder is provided
	Lower risk	1	Roadway is used by cyclists and a designated bike lane is provided; or, roadway is used by cyclist and no road space is allocated to bikes but roadway has very low traffic volumes; or, roadway has negligible cyclist demand
Freeways, Expressways, Highways Only	N/A	0	Cyclists are legally prohibited on the roadway

For Freeways, Expressways, and Highways only, choose risk level "N/A" when cyclists are legally prohibited on a roadway

D. Pavement Surface

Classification	Urban		
All	Higher risk	3	Poor or unpaved / gravel
	Medium risk	2	Fair or rough (significant sections with pot holes, rutting, large cracks, etc)
	Lower risk	1	Good or smooth

E1. Intersection Density (Including midblock crosswalks)

Classification	Urban
All	Use the evaluation methodology in the TABLES worksheet.

Evaluation methodology is presented in TABLE A.

E2. Access Density (Including private driveways, and access to stores and businesses)

Classification	Urban
All	Use the evaluation methodology in the TABLES worksheet.

Evaluation methodology is presented in TABLE B.

E3. Interchange Density

Classification	Urban		
All	Higher risk	3	Interchanges are on average less than 1,000 metres apart
	Medium risk	2	Interchanges are on average 1,000 to 2,000 metres apart
	Lower risk	1	Interchanges are on average more than 2,000 metres apart
	N/A	0	No interchanges

F. On-Street Parking

Classification	Urban		
All	Higher risk	3	Parking permitted all day on one or both sides of the roadway
	Medium risk	2	Parking permitted during part of the day on one or both sides of the roadway
	Lower risk	1	No parking allowed; or parking is permitted but rarely if ever actually utilized
	N/A	0	Parking is legally prohibited

TABLE A. EVALUATION METHODOLOGY FOR NUMBER OF INTERSECTIONS WITH PUBLIC ROADS

1) Points are assigned based on the traffic control type. Calculate total points based on the number and type oftraffic controls along the segment multiplied by assigned weighting factors. Include intersections at either end of the segment, if applicable.

Traffic Control	# of Occurrences	Corridor Length	Points each	Points
STOP-controlled (All-Way STOP or Two-Way STOP along roadway being evaluated)		÷	x WF	=
Signalized intersection (full signal or pedestrian signal)		÷	x WF	=
Roundabout or traffic circle		÷	x WF	=
Midblock and intersection (where sidestreet STOP-controlled) signed and marked crosswalk that is well-utilized** or special crosswalk		÷	x WF	=
Active, at-grade railroad crossing		÷	x WF	=
Sidestreet STOP-controlled (uncontrolled along roadway being evaluated) or lane		÷	x WF	=
			Total Points:	

** well-utilized = more than 10 equivalent adult units per peak hour in a rural area, and more than 20 equivalent adult units per peak hour in an urban area

Refer to TAC Pedestrian Crossing Control Manual for the calculation of equivalent adult units

Points Each / Weighting Factors

E1: NUMBER OF INTERSECTIONS WITH PUBLIC ROADS

Criteria	Rural						Urban					
	Freeway	Expressway	Highway	Arterial	Collector	Local	Freeway	Expressway	Highway	Arterial	Collector	Local
	WF	WF	WF	WF	WF	WF	WF	WF	WF	WF	WF	WF
STOP controlled intersection	4	4	4	4	4	0.25	4	4	4	4	4	0.25
Signalized intersection	5	5	5	6	3.5	0.75	5	5	5	5	3.5	0.75
Roundabout or traffic circle	2	2	2	2	2	0.75	2	2	2	2	2	0.75
Crosswalk	1	1	1	1	1	0.75	1	1	1	5	1	0.75
Active, at-grade railroad crossing	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Sidestreet STOP-controlled or lane	0.5	0.5	0.5	2	0.5	0.25	0.5	0.5	0.5	0.5	0.5	0.25

After being rounded to the nearest whole number, the total points is equivalent to the NUMBER OF INTERSECTIONS WITH PUBLIC ROADS risk score.

TABLE B. EVALUATION METHODOLOGY FOR NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS

1) Points are assigned based on whether left turn movement is allowed at a driveway providing access to active (currently occupied) properties. Calculate total points based on the number of driveways and whether left turn movement is permitted or not and multiplied by assigned weighting factors. Include accesses at either end of the segment, if applicable.

Left turn movement	# of Occurrences	Corridor Length	Points each	Points
Some or all left turn movements permitted		÷	x WF	=
Right-in-right-out OR right-in only OR right-out only		÷	x WF	=
			Total Points:	

Points Each / Weighting Factors

E2: NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS (cap at 15)

Criteria	Rural						Urban					
	Freeway	Expressway	Highway	Arterial	Collector	Local	Freeway	Expressway	Highway	Arterial	Collector	Local
	WF	WF	WF	WF	WF	WF	WF	WF	WF	WF	WF	WF
Left turn movements permitted	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	2	0.5	0.5
Right-in / Right-out only	0.35	0.35	0.35	0.4	0.35	0.35	0.35	0.35	0.35	1	0.35	0.35

After being rounded to the nearest whole number with a cap at 15, the total points is equivalent to the NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS risk score.

Appendix B – SPEED LIMIT ASSESSMENT INPUTS AND RESULTS FOR EACH ROAD SEGMENT

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Calahoo Road				
Segment Evaluated:	MILLGROVE DRIVE	to	WESTON DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	731	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	2
More...	A2	GEOMETRY (Vertical)	Lower	2
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Medium	6
More...	C2	CYCLIST EXPOSURE	Lower	3
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	21
		STOP controlled intersection		
		Signalized intersection	2	
		Roundabout or traffic circle		
		Crosswalk	1	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	1	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	4
		Left turn movements permitted		
		Right-in / Right-out only	3	
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

46

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

60

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 2

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Spruce Ridge Drive				
Segment Evaluated:	SPRING GATE	to	JENNIFER HEIL WAY		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	808	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	12
		STOP controlled intersection	1	
		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	4	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
		Left turn movements permitted	70	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

55

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 5

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Heatherglen Drive				
Segment Evaluated:	GROVE DRIVE	to	HAWTHOME GATE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	636	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	10
		STOP controlled intersection	0	
		Signalized intersection	1	
More...		Roundabout or traffic circle		
		Crosswalk	0	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	6	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
More...		Left turn movements permitted	23	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

54

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 7

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Deer Park Drive				
Segment Evaluated:	DALTON LINK	to	GROVE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	500	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	10
		STOP controlled intersection		
More...		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	3	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
More...		Left turn movements permitted	2	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

41

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Length shorter than 500 m. Rounded up to 500 m

Segment ID – 8

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Spruce Ridge Road				
Segment Evaluated:	SPRINWOOD WAY	to	SPRUCE RIDGE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	709	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Medium	2
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Medium	6
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	13
	STOP controlled intersection	1	
	Signalized intersection		
	Roundabout or traffic circle		
	Crosswalk	1	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	9	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
	Left turn movements permitted	3	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 47

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 50

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 9

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Harvest Ridge Drive				
Segment Evaluated:	GROVE DRIVE WEST	to	GROVE DRIVE WEST		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,756	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Lower	3
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
		STOP controlled intersection		
		Signalized intersection	1	
		Roundabout or traffic circle	1	
		Crosswalk	5	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	9	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
		Left turn movements permitted	64	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

49

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways
In construction between Hamilton Ct and Grove Dr W

Segment ID – 10

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Pioneer Road				
Segment Evaluated:	GARNEAU LINK	to	GROVE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	819	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Higher	9
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
		STOP controlled intersection	0	
		Signalized intersection	1	
		Roundabout or traffic circle	1	
		Crosswalk	0	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	4	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
		Left turn movements permitted	4	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

42

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

In construction between Prescott Blvd and Garneau Link Pioneer Rd segment is currently a collector

Segment ID – 11

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Prescott Boulevard				
Segment Evaluated:	RANGE ROAD 271	to	PENN PLACE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	500	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	1
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Higher	9
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	14
	STOP controlled intersection	0	
	Signalized intersection	1	
	Roundabout or traffic circle	0	
	Crosswalk	0	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	7	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	5
	Left turn movements permitted	5	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score:

50

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Length shorter than 500 m. Rounded up to 500 m.

Segment ID – 12

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Greenbury Boulevard				
Segment Evaluated:	GROVE DRIVE	to	PIONEER ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	780	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Medium	2
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	8
	STOP controlled intersection	0	
	Signalized intersection	1	
	Roundabout or traffic circle	0	
	Crosswalk	0	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	6	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 37

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 60

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 13

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Lakeland Drive				
Segment Evaluated:	GROVE MEADOW DRIVE	to	MCLEOD AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	715	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	6
		STOP controlled intersection	0	
		Signalized intersection		
More...		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	8	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
More...		Left turn movements permitted	78	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

50

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 14

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	McLeod Avenue				
Segment Evaluated:	CENTURY ROAD	to	LAWSON BOULEVARD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	642	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Medium	6
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	12
		STOP controlled intersection		
		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk	2	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	4	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
		Left turn movements permitted	2	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
More...	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

45

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 15

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Century Road				
Segment Evaluated:	YELLOWHEAD HWY	to	VANDERBILT COMMON		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	600	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Medium	2
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	25
	STOP controlled intersection		
	Signalized intersection	3	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only	0	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	3
	Number of interchanges along corridor	1	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 48

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 60

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 16

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Victoria Avenue				
Segment Evaluated:	SPRUCE VILLAGE DRIVE W	to	VANDERBILT COMMON		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	807	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
		STOP controlled intersection		
		Signalized intersection		
More...		Roundabout or traffic circle		
		Crosswalk	2	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	11	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	6
More...		Left turn movements permitted	10	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

44

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 17

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Spruce Village Drive W				
Segment Evaluated:	VANDERBILT COMMON	to	VICTORIA AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	500	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	1
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	6
	STOP controlled intersection		
	Signalized intersection		
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	6	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 34

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 50

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Length shorter than 500 m. Rounded up to 500 m.

Segment ID – 18

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	South Avenue				
Segment Evaluated:	GOLDEN SPIKE ROAD	to	CENTURY ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,632	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	1
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Lower	1
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	1
	STOP controlled intersection		
	Signalized intersection		
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	2	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
	Left turn movements permitted	57	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Lower	3

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 33

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 60

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 19

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Diamond Avenue				
Segment Evaluated:	OSWALD DRIVE	to	CENTURY ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,643	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Lower	1
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Higher	9
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	2
		STOP controlled intersection		
		Signalized intersection		
More...		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	6	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	9
More...		Left turn movements permitted	28	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Lower	3

Calculate Total Risk Score

Total Risk Score:

34

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 20

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Century Road			
Segment Evaluated:	HWY 16A E	to	TWR 524	
Geographic Region:	Spruce Grove			
Road Agency:	Spruce Grove			
Road Classification:	Arterial	Length of Corridor:	3,239	m
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)		km/h
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	80	km/h
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)		

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	3
A2	GEOMETRY (Vertical)	Lower	3
A3	AVERAGE LANE WIDTH	Medium	6
B	ROADSIDE HAZARDS	Lower	3
C1	PEDESTRIAN EXPOSURE	Higher	6
C2	CYCLIST EXPOSURE	Higher	9
D	PAVEMENT SURFACE	Higher	9
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	4
	STOP controlled intersection		
	Signalized intersection	1	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing	1	
	Sidestreet STOP-controlled or lane	3	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
	Left turn movements permitted	11	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	1
	Number of interchanges along corridor	1	
F	ON-STREET PARKING	N/A	0

More... (A1)
More... (A2)
More... (A3)
More... (B)
More... (C1)
More... (C2)
More... (D)
More... (E1)
More... (E2)
More... (E3)
More... (F)

Calculate Total Risk Score

Total Risk Score: 46

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 70

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 21

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	McLeod Avenue				
Segment Evaluated:	CALAHOO ROAD	to	KING STREET		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	653	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Medium	6
More...	C2	CYCLIST EXPOSURE	Higher	9
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	20
		STOP controlled intersection	1	
		Signalized intersection	2	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	4	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	6
		Left turn movements permitted	8	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

60

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 22

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Brookwood Drive				
Segment Evaluated:	KING STREET	to	CENTURY ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	826	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Medium	6
More...	C2	CYCLIST EXPOSURE	Higher	9
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	15
		STOP controlled intersection		
		Signalized intersection	2	
		Roundabout or traffic circle		
More...		Crosswalk	1	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	9	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	8
More...		Left turn movements permitted	14	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

58

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 23

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Longview Drive				
Segment Evaluated:	FAIRWAY DRIVE	to	KINGS LINK		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,033	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Higher	3
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	4
	STOP controlled intersection	0	
	Signalized intersection	0	
	Roundabout or traffic circle	0	
	Crosswalk	1	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	7	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	14
	Left turn movements permitted	28	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score:

48

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 24

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Fairway Drive				
Segment Evaluated:	LONGVIEW DRIVE	to	LINKS ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	718	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Higher	3
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	7
		STOP controlled intersection	1	
More...		Signalized intersection		
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	2	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
More...		Left turn movements permitted	54	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

52

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 25

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Longview Drive				
Segment Evaluated:	CALAHOO ROAD	to	FAIRWAY DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	848	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Higher	3
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
	STOP controlled intersection	0	
	Signalized intersection	0	
	Roundabout or traffic circle	1	
	Crosswalk	4	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	4	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	5
	Left turn movements permitted	8	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Lower	3

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 38

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 50

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 27

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Fieldstone Drive				
Segment Evaluated:	FIELDSTONE CRESCENT	to	GROVE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	549	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Higher	3
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	11
		STOP controlled intersection		
More...		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	5	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
More...		Left turn movements permitted	26	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

56

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 28

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Linkside Boulevard				
Segment Evaluated:	LINKSVIEW DRIVE	to	LONG VIEW DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	500	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Higher	3
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Higher	9
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	4
		STOP controlled intersection		
		Signalized intersection		
More...		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	4	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
More...		Left turn movements permitted	26	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

52

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Length shorter than 500 m. Rounded up to 500 m.
Many private housing access driveways

Segment ID – 29

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Avonlea Way				
Segment Evaluated:	ARTHUR WAY	to	CALAHOO ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	655	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
		STOP controlled intersection	0	
		Signalized intersection	0	
		Roundabout or traffic circle	1	
		Crosswalk	1	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	6	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
		Left turn movements permitted	25	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

52

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways
In construction between Aspenglen Dr and Arthur Way

Segment ID – 30

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Calahoo Road				
Segment Evaluated:	GROVE DRIVE	to	WOODHAVEN DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	520	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	2
More...	A2	GEOMETRY (Vertical)	Lower	2
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Lower	3
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	19
		STOP controlled intersection		
More...		Signalized intersection	2	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane		
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
More...		Left turn movements permitted		
		Right-in / Right-out only	1	
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

39

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

70

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 31

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Copperhaven Drive				
Segment Evaluated:	GROVE DRIVE WEST	to	SPRING LINK		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	564	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
		STOP controlled intersection		
		Signalized intersection		
More...		Roundabout or traffic circle	1	
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	6	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	4
More...		Left turn movements permitted	4	
		Right-in / Right-out only		
	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
More...	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

41

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

In construction south of Caledon Cres

Segment ID – 32

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Jennifer Heil Way				
Segment Evaluated:	YELLOWHEAD HWY	to	DALTON LINK		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	668	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Lower	1
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Higher	9
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	0
	STOP controlled intersection	0	
	Signalized intersection		
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	3
	Number of interchanges along corridor	1	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score:

25

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

90

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 33

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Jennifer Heil Way				
Segment Evaluated:	DALTON LINK	to	GROVE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	500	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Medium	2
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	10
	STOP controlled intersection		
	Signalized intersection	1	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score:

30

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

80

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Length shorter than 500 m. Rounded up to 500 m.

Segment ID – 34

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Jennifer Heil Way				
Segment Evaluated:	GROVE DRIVE	to	HAWTHOME GATE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	633	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	2
More...	A2	GEOMETRY (Vertical)	Lower	2
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Lower	3
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	16
		STOP controlled intersection		
		Signalized intersection	2	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane		
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
		Left turn movements permitted		
		Right-in / Right-out only	1	
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

36

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

70

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 35

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Jennifer Heil Way (NB)				
Segment Evaluated:	SPRUCE RIDGE DRIVE	to	NELSON DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	500	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	20
	STOP controlled intersection	0	
	Signalized intersection	2	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 41

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 70

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Length shorter than 500 m. Rounded up to 500 m.

Segment ID – 36

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Jennifer Heil Way (SB)				
Segment Evaluated:	SPRUCE RIDGE DRIVE	to	NELSON DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	500	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	20
	STOP controlled intersection		
	Signalized intersection	2	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
	Left turn movements permitted		
	Right-in / Right-out only	1	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 43

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 60

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Length shorter than 500 m. Rounded up to 500 m.

Segment ID – 37

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Jennifer Heil Way (NB)				
Segment Evaluated:	NELSON DRIVE	to	MCLEOD AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	581	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
More... A1	**GEOMETRY (Horizontal)**	Lower	2
More... A2	**GEOMETRY (Vertical)**	Lower	2
More... A3	**AVERAGE LANE WIDTH**	Medium	4
More... B	**ROADSIDE HAZARDS**	Higher	3
More... C1	**PEDESTRIAN EXPOSURE**	Lower	3
More... C2	**CYCLIST EXPOSURE**	Medium	6
More... D	**PAVEMENT SURFACE**	Lower	1
	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	
	STOP controlled intersection		
More... E1	Signalized intersection	2	17
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	
More... E2	Left turn movements permitted	0	0
	Right-in / Right-out only		
	NUMBER OF INTERCHANGES	*Number of Occurrences*	
More... E3	Number of interchanges along corridor	0	0
More... F	**ON-STREET PARKING**	N/A	0

Calculate Total Risk Score

Total Risk Score:

38

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

70

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 38

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Jennifer Heil Way (SB)				
Segment Evaluated:	NELSON DRIVE	to	MCLEOD AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	580	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	17
	STOP controlled intersection		
	Signalized intersection	2	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
	Left turn movements permitted		
	Right-in / Right-out only	1	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 40

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 70

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 39

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Calahoo Road				
Segment Evaluated:	WESTON DRIVE	to	HWY 16A E		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	613	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	2
More...	A2	GEOMETRY (Vertical)	Lower	2
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Medium	2
More...	C1	PEDESTRIAN EXPOSURE	Medium	6
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	28
		STOP controlled intersection		
More...		Signalized intersection	3	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	4	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	5
More...		Left turn movements permitted	1	
		Right-in / Right-out only	1	
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	3
More...		Number of interchanges along corridor	1	
	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

59

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

60

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 41

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Golden Spike Road (NB)				
Segment Evaluated:	HWY 16A E	to	DIAMOND AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	586	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	2
More...	A2	GEOMETRY (Vertical)	Lower	2
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Medium	2
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	17
		STOP controlled intersection		
More...		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing	1	
		Sidestreet STOP-controlled or lane	9	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	3
More...		Left turn movements permitted	1	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

40

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

70

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 42

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Golden Spike Road (SB)				
Segment Evaluated:	HWY 16A E	to	DIAMOND AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	587	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Medium	2
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	18
	STOP controlled intersection		
	Signalized intersection	1	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing	1	
	Sidestreet STOP-controlled or lane	10	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 38

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 70

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 43

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Campsite Road				
Segment Evaluated:	HWY 16A E	to	TWR 524		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	3,217	m	
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	3
A2	GEOMETRY (Vertical)	Lower	3
A3	AVERAGE LANE WIDTH	Medium	6
B	ROADSIDE HAZARDS	Lower	3
C1	PEDESTRIAN EXPOSURE	Lower	2
C2	CYCLIST EXPOSURE	Higher	9
D	PAVEMENT SURFACE	Medium	6
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	5
	STOP controlled intersection		
	Signalized intersection	1	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing	1	
	Sidestreet STOP-controlled or lane	4	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	1
	Left turn movements permitted	6	
	Right-in / Right-out only	2	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 38

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 80

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 44

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	McLaughlin Drive				
Segment Evaluated:	NELSON DRIVE	to	MCLEOD AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	610	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Higher	3
More...	A2	GEOMETRY (Vertical)	Medium	2
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	13
		STOP controlled intersection		
More...		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk	3	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	3	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
More...		Left turn movements permitted	27	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

59

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 45

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Millgrove Drive				
Segment Evaluated:	GROVE DRIVE	to	CALAHOO ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,095	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Medium	2
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Medium	6
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	11
	STOP controlled intersection		
	Signalized intersection	2	
	Roundabout or traffic circle		
	Crosswalk	2	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	7	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	7
	Left turn movements permitted	15	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 50

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 50

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 46

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Aspenglen Drive				
Segment Evaluated:	AVONLEA WAY	to	GROVE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	665	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Higher	9
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
		STOP controlled intersection		
More...		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	5	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
More...		Left turn movements permitted	24	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

56

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 47

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Calahoo Road				
Segment Evaluated:	AVONLEA WAY	to	GROVE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	665	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Lower	1
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	11
	STOP controlled intersection		
	Signalized intersection	1	
	Roundabout or traffic circle	1	
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 30

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 70

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 49

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Century Road				
Segment Evaluated:	VANDERBILT COMMON	to	GROVE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	573	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	**GEOMETRY (Horizontal)**	Lower	2
A2	**GEOMETRY (Vertical)**	Lower	2
A3	**AVERAGE LANE WIDTH**	Medium	4
B	**ROADSIDE HAZARDS**	Higher	3
C1	**PEDESTRIAN EXPOSURE**	Lower	3
C2	**CYCLIST EXPOSURE**	Medium	6
D	**PAVEMENT SURFACE**	Lower	1
E1	**NUMBER OF INTERSECTIONS WITH PUBLIC ROADS**	*Number of Occurrences*	26
	STOP controlled intersection		
	Signalized intersection	2	
	Roundabout or traffic circle		
	Crosswalk	1	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	**NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS**	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	**NUMBER OF INTERCHANGES**	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	**ON-STREET PARKING**	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 47

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 60

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 50

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	McLeod Avenue				
Segment Evaluated:	NELSON DRIVE	to	CALAHOO ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	859	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Medium	2
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
		STOP controlled intersection		
		Signalized intersection	1	
		Roundabout or traffic circle	1	
More...		Crosswalk	2	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane		
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	6
More...		Left turn movements permitted	9	
		Right-in / Right-out only	2	
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

33

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

60

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 53

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Spruce Ridge Road				
Segment Evaluated:	GROVE DRIVE WEST	to	SPRUCE RIDGE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	551	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Higher	3
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Medium	6
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	19
	STOP controlled intersection	1	
	Signalized intersection	1	
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	6	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	5
	Left turn movements permitted	5	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 57

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 50

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 54

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	King Street				
Segment Evaluated:	KINGS LINK	to	GROVE DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	869	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	11
		STOP controlled intersection		
		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk	1	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	10	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	7
		Left turn movements permitted	12	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

47

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 55

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Century Road				
Segment Evaluated:	GROVE DRIVE	to	GROVE MEADOW DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	787	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Medium	2
C1	PEDESTRIAN EXPOSURE	Medium	6
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	24
	STOP controlled intersection	1	
	Signalized intersection	2	
	Roundabout or traffic circle		
	Crosswalk	1	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane		
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score:

47

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

60

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 56

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Golden Spike Road				
Segment Evaluated:	DIAMOND AVENUE	to	TWR 524		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	2,648	m	
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	3
A2	GEOMETRY (Vertical)	Lower	3
A3	AVERAGE LANE WIDTH	Medium	6
B	ROADSIDE HAZARDS	Lower	3
C1	PEDESTRIAN EXPOSURE	Lower	2
C2	CYCLIST EXPOSURE	Higher	9
D	PAVEMENT SURFACE	Lower	3
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	5
	STOP controlled intersection		
	Signalized intersection		
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	6	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	1
	Left turn movements permitted	3	
	Right-in / Right-out only	2	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score:

35

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

80

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 57

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	King Street				
Segment Evaluated:	WOODHAVEN DRIVE	to	HWY 16A		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,183	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Medium	6
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	16
		STOP controlled intersection		
		Signalized intersection	3	
		Roundabout or traffic circle		
		Crosswalk	5	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	7	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	9
		Left turn movements permitted	22	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

48

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 58

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Woodhaven Drive				
Segment Evaluated:	CALAHOO ROAD	to	KING STREET		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	863	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	1
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	14
	STOP controlled intersection		
	Signalized intersection	2	
	Roundabout or traffic circle		
	Crosswalk	2	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	7	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
	Left turn movements permitted	3	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 44

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 50

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 59

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Greystone Drive				
Segment Evaluated:	GROVE DRIVE	to	GROVE MEADOW DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	875	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Higher	3
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
	STOP controlled intersection		
	Signalized intersection		
	Roundabout or traffic circle		
	Crosswalk	3	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	10	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	6
	Left turn movements permitted	10	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 45

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 50

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 60

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Weston Drive				
Segment Evaluated:	NELSON DRIVE	to	CALAHOO ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	918	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Medium	2
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	9
		STOP controlled intersection		
		Signalized intersection	1	
More...		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	9	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
More...		Left turn movements permitted	39	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

51

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 61

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	King Street				
Segment Evaluated:	GROVE DRIVE	to	WOODHAVEN DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	713	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Medium	6
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	18
		STOP controlled intersection		
		Signalized intersection	2	
		Roundabout or traffic circle		
		Crosswalk	1	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	10	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	7
		Left turn movements permitted	10	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

57

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

40

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 62

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Deer Park Boulevard				
Segment Evaluated:	DEER PARK DRIVE	to	DEER PARK DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,075	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Higher	3
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	7
	STOP controlled intersection		
	Signalized intersection		
	Roundabout or traffic circle		
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	15	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	12
	Left turn movements permitted	25	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score:

49

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways
In construction north of Danfield Pl

Segment ID – 63

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Grove Drive W				
Segment Evaluated:	HARVEST RIDGE DRIVE	to	JENNIFER HEIL WAY		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	1,266	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Medium	4
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	14
	STOP controlled intersection		
	Signalized intersection	2	
	Roundabout or traffic circle	1	
	Crosswalk	1	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	1	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	0
	Left turn movements permitted	0	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 34

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 70

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 64

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	McLeod Avenue				
Segment Evaluated:	KING STREET	to	CENTURY ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,267	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Medium	2
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Medium	6
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	13
	STOP controlled intersection		
	Signalized intersection	2	
	Roundabout or traffic circle		
	Crosswalk	3	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	13	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	9
	Left turn movements permitted	22	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 54

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 40

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways

Segment ID – 65

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	McLeod Avenue				
Segment Evaluated:	JENNIFER HEIL WAY	to	NELSON DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	839	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Medium	2
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	13
		STOP controlled intersection		
		Signalized intersection	2	
		Roundabout or traffic circle	1	
		Crosswalk	1	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	2	
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	5
		Left turn movements permitted	6	
		Right-in / Right-out only	4	
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

38

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 66

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Vanderbilt Common				
Segment Evaluated:	CENTURY ROAD	to	SPRUCE VILLAGE DRIVE E		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	665	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	13
		STOP controlled intersection		
More...		Signalized intersection	1	
		Roundabout or traffic circle		
		Crosswalk	2	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	6	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	5
More...		Left turn movements permitted	7	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Higher	9

Calculate Total Risk Score

Total Risk Score:

46

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 67

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Grove Drive				
Segment Evaluated:	CENTURY ROAD	to	PIONEER ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	1,674	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	2
More...	A2	GEOMETRY (Vertical)	Medium	4
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Lower	3
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	14
		STOP controlled intersection		
		Signalized intersection	2	
More...		Roundabout or traffic circle	1	
		Crosswalk	2	
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	3	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	1
More...		Left turn movements permitted		
		Right-in / Right-out only	1	
	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
More...	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

35

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

70

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 68

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Grove Drive				
Segment Evaluated:	CALAHOO ROAD	to	CENTURY ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	1,636	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Medium	6
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	28
	STOP controlled intersection		
	Signalized intersection	4	
	Roundabout or traffic circle		
	Crosswalk	5	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	2	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	4
	Left turn movements permitted	2	
	Right-in / Right-out only	3	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 53

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 60

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 69

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Grove Drive				
Segment Evaluated:	JENNIFER HAIL WAY	to	CALAHOO ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	1,649	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	15
	STOP controlled intersection		
	Signalized intersection	4	
	Roundabout or traffic circle		
	Crosswalk	1	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	1	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
	Left turn movements permitted	1	
	Right-in / Right-out only	1	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 35

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 70

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 70

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Pioneer Road				
Segment Evaluated:	GROVE DRIVE	to	MCLEOD AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	1,276	m	
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	3
More...	A2	GEOMETRY (Vertical)	Lower	3
More...	A3	AVERAGE LANE WIDTH	Medium	6
More...	B	ROADSIDE HAZARDS	Lower	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	2
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	3
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	6
		STOP controlled intersection		
		Signalized intersection		
More...		Roundabout or traffic circle	4	
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane		
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	1
More...		Left turn movements permitted	2	
		Right-in / Right-out only		
	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
More...	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score:

33

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

80

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 71

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Nelson Drive				
Segment Evaluated:	JENNIFER HEIL WAY	to	MCLEOD AVENUE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,203	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Medium	2
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	11
	STOP controlled intersection	0	
	Signalized intersection	1	
	Roundabout or traffic circle	1	
	Crosswalk	3	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	9	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	2
	Left turn movements permitted	4	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More...

More...

More...

More... More...

Calculate Total Risk Score

Total Risk Score: 39

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 50

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 72

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Diamond Avenue				
Segment Evaluated:	CAMPSITE ROAD	to	GOLDEN SPIKE ROAD		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	1,621	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	1
More...	A2	GEOMETRY (Vertical)	Lower	1
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Lower	1
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Lower	3
More...	D	PAVEMENT SURFACE	Lower	1
	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	3
		STOP controlled intersection	1	
		Signalized intersection	0	
More...		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane	2	
	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	12
More...		Left turn movements permitted	39	
		Right-in / Right-out only		
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
More...		Number of interchanges along corridor	0	
	F	ON-STREET PARKING	Lower	3

Calculate Total Risk Score

Total Risk Score:

32

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

60

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 73

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Grove Meadow Drive				
Segment Evaluated:	CENTURY ROAD	to	LANDRY COURT		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	867	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Higher	3
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	10
	STOP controlled intersection	0	
	Signalized intersection	1	
	Roundabout or traffic circle		
	Crosswalk	1	
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	9	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	3
	Left turn movements permitted	4	
	Right-in / Right-out only	2	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Lower	3

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score:

34

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

50

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 74

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Calahoo Road				
Segment Evaluated:	ADELAIDE COURT	to	LONGVIEW DRIVE		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Collector	Length of Corridor:	789	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	50	km/h	
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Higher	3
A2	GEOMETRY (Vertical)	Lower	1
A3	AVERAGE LANE WIDTH	Medium	4
B	ROADSIDE HAZARDS	Higher	3
C1	PEDESTRIAN EXPOSURE	Lower	3
C2	CYCLIST EXPOSURE	Medium	6
D	PAVEMENT SURFACE	Lower	1
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	6
	STOP controlled intersection		
	Signalized intersection		
	Roundabout or traffic circle	1	
	Crosswalk		
	Active, at-grade railroad crossing		
	Sidestreet STOP-controlled or lane	6	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	15
	Left turn movements permitted	23	
	Right-in / Right-out only		
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	9

More... More... More... More... More... More... More... More... More... More...

Calculate Total Risk Score

Total Risk Score: 51

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 40

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Many private housing access driveways
In construction north of Applewood Point

Segment ID – 75

Clear Sheet

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Century Road				
Segment Evaluated:	BROOKWOOD DR/GROVE MEADOW DR	to	HWY 16A E		
Geographic Region:	Spruce Grove				
Road Agency:	Spruce Grove				
Road Classification:	Arterial	Length of Corridor:	1,060	m	
Urban / Rural:	Urban	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	60	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)		km/h	
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)			

			RISK	Score
More...	A1	GEOMETRY (Horizontal)	Lower	2
More...	A2	GEOMETRY (Vertical)	Lower	2
More...	A3	AVERAGE LANE WIDTH	Medium	4
More...	B	ROADSIDE HAZARDS	Higher	3
More...	C1	PEDESTRIAN EXPOSURE	Lower	3
More...	C2	CYCLIST EXPOSURE	Medium	6
More...	D	PAVEMENT SURFACE	Lower	1
More...	E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	19
		STOP controlled intersection		
		Signalized intersection	4	
		Roundabout or traffic circle		
		Crosswalk		
		Active, at-grade railroad crossing		
		Sidestreet STOP-controlled or lane		
More...	E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	1
		Left turn movements permitted		
		Right-in / Right-out only	1	
More...	E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
		Number of interchanges along corridor	0	
More...	F	ON-STREET PARKING	N/A	0

Calculate Total Risk Score

Total Risk Score: 41

Recommended Posted Speed Limit (km/h):

As determined by road characteristics: 70

As determined by policy:

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Segment ID – 76

Appendix C – DETAILED SITE OBSERVATIONS CHECKLIST FOR SAMPLE LOCAL ROADS

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Beverly Avenue (Between Blaimore and Benton Street)**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	Three (unsignalized)
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	Sidewalk on north sides of Street
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	Approximately one hundred
Activity Level (High, Moderate or Low)	Low
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	Two Sides
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	Trees affecting sight lines at intersection between Blaimore and Benton Streets - Brockwood Crescen
Adjacent Land Use	
Low Density residential (single family)	Single Family
Medium Density Residential (Town Houses, duplexes)	None
High Density Residential	None
Mixed Use Commercial Street	None
Park	None
Industrial	None
School Zones	None
Photos	

Photos

3865 - Looking west from intersection of Benton Street
3866 - Looking north from intersection with Brockwood Crescent
3867 -Looking east from the intersection of Brockwood Crescent
3868 - Looking west from the intersection with Brockwood Crescent
3869 - Looking south from the intersection with Brockwood Crescent.
3870 - Looking east from the intersection with Blainmore Street.
3871 - Looking west towards the intersection with Blainmore Street.

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Mathias Avenue (Between Millgrove Drive McKean Way)**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	One (unsignalized) Millgrove Drive.
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	Sidewalk on one side of Street
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	Approximately thirty 31
Activity Level (High, Moderate or Low)	Low
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	Two Sides
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	None Observed
Adjacent Land Use	
Low Density residential (single family)	Low Density Single Family
Medium Density Residential (Town Houses, duplexes)	None
High Density Residential	None
Mixed Use Commercial Street	None
Park	None
Industrial	None
School Zones	None

Photos

3872 - Looking east towards the intersection with Mc Kean Way.
3873 - Looking west from Mc Kean Way.
3874 - Looking east from Millgrove Drive
3875 Looking west towards Millgrove Drive intersection.

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	Three (unsignalized) . Queen St, Main Street and King Street.
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	Sidewalk on two sides of Street
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	6 - Mostly parking street parking
Activity Level (High, Moderate or Low)	Moderate
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	Two Sides
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	Very narrow street with parking on both sides.- restricted lane widths
Adjacent Land Use	
Low Density residential (single family)	
Medium Density Residential (Town Houses, duplexes)	
High Density Residential	Condo complexes present at either end of the street.
Mixed Use Commercial Street	Mixed Use Commercial Street - Church, strip mall , service locations and residences
Park	None
Industrial	None
School Zones	None

Photos

3876 - Looking east towards King Street intersection and Strip mall.
3877 - Looking west from King Street intersection
3878 - Looking west towards Queen Street intersection.
3879 - Looking west towards Queen Street intersection
3880 - looking east from queen Street intersection.

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Mohr Avenue (Between Spruce Glen and Queen Street)**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	One (unsignalized) . Queen St
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	Sidewalk on one sides of Street
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	3
Activity Level (High, Moderate or Low)	Low
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	None Observed
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	
	None Observed.
Adjacent Land Use	
Low Density residential (single family)	Low Density Residential
Medium Density Residential (Town Houses, duplexes)	None
High Density Residential	Condo style building present at the SE corner of intersection with Queen Street
Mixed Use Commercial Street	None
Park	None
Industrial	None
School Zones	None
Photos	

Photos

3881 - Looking east from Spruce Glen intersection.
3882 - Looking east towards Queen Street intersection from Spruce Glen intersection.
3883 - Looking west from Queen Street intersection
3884 - Looking west from Queen Street intersection.
3885 -Looking east from Spruce Glen intersection

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Saskatchewan Drive (Between Commerce St. N and Canada Post)**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	Two (unsignalized) - Commerce Street North and Commerce Street South
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	No sidewalk separation - wide roadway
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	9
Activity Level (High, Moderate or Low)	Moderate - to Canada Post Facility mostly.
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	No street parking observed.
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	None Observed.
Adjacent Land Use	
Low Density residential (single family)	
Medium Density Residential (Town Houses, duplexes)	
High Density Residential	
Mixed Use Commercial Street	
Park	
Industrial	
School Zones	Industrial area. Most traffic observed headed to Canada Post.
	None

Photos

3886 - Looking east towards Canada Post facility entrance.
3887 - Looking west from Canada Post facility.
3888 - Looking east from intersection with Commerce Street North
3889 - Looking west from intersection with Commerce Street North
3890 - Looking west from intersection with Commerce Street North
3891 - Looking east from intersection with Commerce Street North to Commerce Street South

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Madison Crescent (Campsite Road to east bend)**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	One (unsignalized) - Campsite Road
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	No sidewalk separation - wide roadway
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	12 - Mostly industrial accesses
Activity Level (High, Moderate or Low)	Low
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	None Observed
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	None Observed.
Adjacent Land Use	
Low Density residential (single family)	
Medium Density Residential (Town Houses, duplexes)	
High Density Residential	
Mixed Use Commercial Street	
Park	
Industrial	
School Zones	Cemetery at NW quadrant of intersection of Campsite/ Madison Crescent. Mostly industrial.

Photos

3892 - Looking east towards road bend.
3893 - Looking west from road bend at east end.
3894 - Looking east from Campsite Road intersection.
3895 - Looking west towards Campsite Road intersection.
3896 - Looking north west towards cemetery at NW corner of Campsite / Madision Avenue intersection.
3897 - Looking north west towards cemetery at NW corner of Campsite / Madision Avenue intersection.

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Mcleod Avenue (King Street to Queen Street)**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	Two (unsignalized) - Queen Street/ Main Street ; One (signalized) -King Street
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	On one side - south ; construction ongoing north half of roadway , excavation possibly storm line installation
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	None observed.
Activity Level (High, Moderate or Low)	Moderate
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	One side due to construction - EB lane traffic only.
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	EB Lane traffic - restricted lane width due to construction ; sidewalk access on north side restricted.
Adjacent Land Use	
Low Density residential (single family)	None
Medium Density Residential (Town Houses, duplexes)	None
High Density Residential	None
Mixed Use Commercial Street	Mixed use commercial street - retail sales; service centers and restaurants.
Park	None present
Industrial	None
School Zones	None
	None

Photos

3898/99 - Looking west at intersection of King Street and Mcleod Avenue
3900 - Looking west towards Main Street intersection
3901 - Looking north at Queen Street intersection.
3902 - Looking North East East from Queen Street intersection. Street down to one lane in the EB direction due to excavation.
3903 - Looking north at Main Street intersection

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Virginia Avenue (Ventura Street to Vernon Street)**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	Four (unsignalized)
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	On one side
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	Approximately Twenty
Activity Level (High, Moderate or Low)	Low
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	Two sides
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	Sightlines restricted at intersection with Spruce Village Drive due to street parking close to intersection .
	Vehicles along Spruce Village Drive appear to be travelling at 50km/hr.
Adjacent Land Use	
Low Density residential (single family)	None
Medium Density Residential (Town Houses, duplexes)	Townhouses; duplexes present
High Density Residential	None Lad
Mixed Use Commercial Street	None
Park	Pedestrian Crossing signs present to cross to Spruce Village Park from Virginia Loop.
Industrial	Spruce Village Park adjacent to Virginia Avenue
School Zones	None
	None

Photos

3905 - looking west to pedestrian crossing from Virginia Loop to Spruce Village Park Pathway.
3906 - Looking west towards Vernon Street intersection
3907 - Looking east from Ventura Street intersection
3908 - looking east at Spruce Village Drive West intersection
3909 - Looking South East at parking on Spruce Village Drive restricting sight line at intersection.
3910 - Looking North East from Spruce Village Drive intersection - No issues with sight line with no vehicles parking close to intersection .
3911 - Looking west from Spruce Village Drive intersection.

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Langley Crescent**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	Two (unsignalized)
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	On one side
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	Approximately sixty
Activity Level (High, Moderate or Low)	Low
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	Two sides
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	None observed.
Adjacent Land Use	
Low Density residential (single family)	Low density residential (single family) homes .
Medium Density Residential (Town Houses, duplexes)	None
High Density Residential	None
Mixed Use Commercial Street	None
Park	Children's Park present in loop.
Industrial	None
School Zones	None
	None

Photos

3860 - Looking west at children's park. - NW corner of loop
3861 - Looking east from children's park.
3862 - Looking south from north loop intersection
3863 - Looking east at south loop intersection
3864 Looking west from south loop intersection.

Project: Spruce Grove Planning Study
Project Number : 220316300
Date : **November 18,2022**
Name of Street **Fifth Avenue (between King Street and Oatway Street)**

CHECKLIST

Item Checklist	Comments
Number of Intersections (signalized or unsignalized)	Two (unsignalized) ,Intersection signalized for through traffic along King Street only.
Separation of Modes	
- For Pedestrians : Sidewalks (on one side , two sides or neither side or Multi Use Path	On one side
- For Bike: Bike lane wide curb lane, shared lane	No separation
- For Transit: Mixed with vehicle traffic or dedicated lane:	No separation
Number of driveways on block	Approximately twenty two
Activity Level (High, Moderate or Low)	Moderate
Confirm Posted Speed	Signage not Observed
On Street Parking (One Side, two Side)	Two sides
Any Safety Issues Observed (speeding; near misses, sightline issues, ped or bike conflicts)	None observed. Two pedestrian crossings within the street limits.
	Traffic lights at intersection of King Street only visible for through traffic along King Street.
Adjacent Land Use	
Low Density residential (single family)	
Medium Density Residential (Town Houses, duplexes)	None
High Density Residential	None
Mixed Use Commercial Street	Medium density , duplexes observed as well as a fire station , library and cultural center close to King St.
Park	None
Industrial	None
School Zones	None
	None

Photos

3912 - Looking east towards Oatway Street intersection.
3913 - looking west from Oatway Street intersection
3914 - Looking west at first set of pedestrian crossing.
3915 - Looking west at first set of pedestrian crossing.
3916 - Looking west at second set of pedestrian crossing immediately east of Spruce Grove library.
3917 - Looking South West at building housing Spruce Grove Fire Services.
3918 - Looking South at building housing Spruce Grove Fire Services.
3919 - Looking South at building housing Spruce Grove Fire Services.

Appendix D – NACTO SAFE SPEED STUDY APPROACH CHECKLIST AND RESULTS FOR EACH SAMPLE LOCAL ROAD

	NACTO'S CONFLICT DENSITY ANALYSIS CHECKLIST																	RESULTS		
				HIGH CONFLICT DENSITY				MODERATE CONFLICT DENSITY				LOW CONFLICT DENSITY								
				OR				AND		AND EITHER		AND			AND EITHER					
	Road	From	To	No Sidewalks	Bicycle traffic in the traffic lane, even where marked or signed (e.g., sharrows)	Sidewalks directly adjacent to moving traffic	≥ 3 Midblock or uncontrolled intersection crossings per hour per ¼ mile	1-3 Midblock or uncontrolled intersection, driveways crossings per hour per ¼ mile	Curbside loading/parking lane and sidewalk, or a USDG-compliant sidewalk	A marked bike lane or better, if designated bike route	A full sidewalk with permissible bike use, if not a designated bike route	No midblock or uncontrolled intersections (signalized or unsignalized) major driveways, or crossings per hour per ¼ mile	Curbside loading/parking lane and sidewalk, or a USDG-compliant sidewalk	Passengers exiting parked or loading vehicles are not directly in general traffic lanes	Protected bike lane, shared use path, or USDG consistent sidewalk, if designated bike route	Full sidewalk with legally permissible bike use, if not designated a bike lane	HIGH CONFLICT DENSITY	MODERATE CONFLICT DENSITY	LOW CONFLICT DENSITY
1	Beverly Avenue	Blairmore St	Benton Street					X	X (sidewalk one side only)		X							X	
2	Mathias Ave	Millgrove Dr	Mckean Way					X	X (sidewalk one side only)		X							X	
3	Church Road	Queen St	King St					X	X		X							X	
4	Mohr Ave	Spruce Glen	Queen St	X	X												X		
5	Saskatchewan Ave	Commerce Rd	Canada Post	X	X												X		
6	Madison Crescent	Campsite Rd	At road bend	X	X												X		
7	McLeod Ave	Queen St	King St					X	X		X							X	
8	Virginia Ave	Ventura St	Vernon St					X	X (sidewalk one side only)		X							X	
9	Langley Crescent	Lakeland Dr	Lakeland Dr					X	X (sidewalk one side only)		X							X	
10	Fifth Ave	King St	Oatway St		X (Strava show some (low) cyclist activity			X	X (sidewalk one side only)		X						X	X	

	NACTO'S ACTIVITY LEVEL ANALYSIS CHECKLIST			HIGH ACTIVITY			MODERATE ACTIVITY			LOW ACTIVITY	RESULTS		
				OR			OR						
	Road	From	To	Downtown / Central Business District street	Retail corridor	High density residential or commercial street	Moderate density residential or commercial street	Street with light retail activity	Mixed use corridor	Low density industrial or residential street	HIGH ACTIVITY	MODERATE ACTIVITY	LOW ACTIVITY
1	Beverly Avenue	Blairmore St	Benton Street							X			X
2	Mathias Ave	Millgrove Dr	Mckean Way							X			X
3	Church Road	Queen St	King St				X					X	
4	Mohr Ave	Spruce Glen	Queen St							X			X
5	Saskatchewan Ave	Commerce Rd	Canada Post							X			X
6	Madison Crescent	Campsite Rd	At road bend							X			X
7	McLeod Ave	Queen St	King St				X					X	
8	Virginia Ave	Ventura St	Vernon St							X			X
9	Langley Crescent	Lakeland Dr	Lakeland Dr							X			X
10	Fifth Ave	King St	Oatway St				X					X	

Appendix E – SCHOOL ZONE WARRANT ANALYSIS WORKSHEET FOR EACH SCHOOL

School Name	Brookwood School				
School Address	460 King Street				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50	1	
		Non-traversable	0.10		
					10
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50		
		Further Than 50 M	0.00	1	
					0
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	65
				RESULT	School Area or School Zone

School Name	Woodhaven Middle School				
School Address	475 King Street				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00		0
		Middle/Junior High	0.40	1	16
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					16
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50		
		Further Than 50 M	0.00	1	
					0
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	51
				RESULT	School Area

School Name	Copperhaven School				
School Address	151 Grove Drive West				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50	1	
		Further Than 50 M	0.00		
					5
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60	1	
		Both Sides	0.00		
					3
				TOTAL SCORE	83
				RESULT	School Zone

School Name	Greystone Centennial Middle School				
School Address	130 Greystone Drive				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00		0
		Middle/Junior High	0.40	1	16
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					16
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75	1	
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					15
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50	1	
		Further Than 50 M	0.00		
					5
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	43
				RESULT	School Area

School Name	Prescott Learning Centre				
School Address	340 Pioneer Road				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50	1	
		Non-traversable	0.10		
					10
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50		
		Further Than 50 M	0.00	1	
					0
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	65
				RESULT	School Area or School Zone

School Name	Ecole Broxton Park School				
School Address	505 McLeod Avenue				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50	1	
		Non-traversable	0.10		
					10
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50	1	
		Further Than 50 M	0.00		
					5
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60	1	
		Both Sides	0.00		
					3
				TOTAL SCORE	73
				RESULT	School Area or School Zone

School Name	Millgrove School				
School Address	851 Calahoo Road				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	67
				RESULT	School Area or School Zone

School Name	Spruce Grove Composite High School				
School Address	1000 Calahoo Road				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00		0
		Middle/Junior High	0.40		0
		High School	0.20	1	8
		Post Secondary/College/University	0.00		0
					8
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00	1	
					0
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	43
				RESULT	School Area

School Name	St. Joseph Catholic School				
School Address	195 Weston Dr				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50	1	
		Non-traversable	0.10		
					10
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50	1	
		Further Than 50 M	0.00		
					5
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	70
				RESULT	School Area or School Zone

School Name	St. Peter the Apostle Catholic High School				
School Address	10 Harvest Ridge Dr				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00		0
		Middle/Junior High	0.40		0
		High School	0.20	1	8
		Post Secondary/College/University	0.00		0
					8
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	53
				RESULT	School Area

School Name	St. Thomas Aquinas Catholic School				
School Address	381 Grove Dr W				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00		0
		Middle/Junior High	0.40	1	16
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					16
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00	1	
					0
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	51
				RESULT	School Area

School Name	St. Marguerites Catholic School				
School Address	395 Grove Dr W				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00	1	
					0
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	57
				RESULT	School Area

School Name	Living Waters Christian Academy				
School Address	5 Grove Drive W				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. SCHOOL TYPE	40	Elementary	1.00	1	40
		Middle/Junior High	0.40		0
		High School	0.20		0
		Post Secondary/College/University	0.00		0
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00	1	
					0
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. SCHOOL ENTRANCE	5	Main	1.00	1	
		Secondary	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None Or Non-School Side	1.00		
		School Side	0.60		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	57
				RESULT	School Area

Appendix F – PLAYGROUND WARRANT ANALYSIS WORKSHEET FOR EACH PLAYGROUND

Playground Name	Westbend Park - WestBend St				
Playground Address	25 Westbend St				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40	1	
		Both Sides	0.00		
					2
				TOTAL SCORE	97
				RESULT	Playground Zone

Playground Name	Westbend Park - Westcove St				
Playground Address	25 Westbend St				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00		
		Secondary Entrance	0.60	1	
		None	0.00		
					3
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40	1	
		Both Sides	0.00		
					2
				TOTAL SCORE	95
				RESULT	Playground Zone

Playground Name	Heatherglen Cres				
Playground Address	Heatherglen Cres				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00		
		Secondary Entrance	0.60	1	
		None	0.00		
					3
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	93
				RESULT	Playground Zone

Playground Name	McKean Park				
Playground Address	43 McKean Way				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00	1	
		Playground Side	0.40		
		Both Sides	0.00		
					5
				TOTAL SCORE	100
				RESULT	Playground Zone

Playground Name	Woodside Park - Wascana St				
Playground Address	4 Wascana St				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00		
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20	1	
		< 50 m, any facilities	0.20		
					8
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50	1	
		Non-traversable	0.10		
					10
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00		
		Secondary Entrance	0.60	1	
		None	0.00		
					3
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40	1	
		Both Sides	0.00		
					2
				TOTAL SCORE	53
				RESULT	Playground Area

Playground Name	Woodside Park - Westview Cres				
Playground Address	4 Wascana St				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00		
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20	1	
		< 50 m, any facilities	0.20		
					8
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50	1	
		Non-traversable	0.10		
					10
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00	1	
		Playground Side	0.40		
		Both Sides	0.00		
					5
				TOTAL SCORE	58
				RESULT	Playground Area

Playground Name	Woodside Park - Woodside Cres				
Playground Address	4 Wascana St				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00		
		Secondary Entrance	0.60	1	
		None	0.00		
					3
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40	1	
		Both Sides	0.00		
					2
				TOTAL SCORE	77
				RESULT	Playground Area

Playground Name	Windermere Park				
Playground Address	Windermere Dr				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40	1	
		Both Sides	0.00		
					2
				TOTAL SCORE	97
				RESULT	Playground Zone

Playground Name	Kenton Way Park				
Playground Address	33 Kenton Way				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40	1	
		Both Sides	0.00		
					2
				TOTAL SCORE	97
				RESULT	Playground Zone

Playground Name	Beechmont Park				
Playground Address	21 Beechmont Ave				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00	1	
		Playground Side	0.40		
		Both Sides	0.00		
					5
				TOTAL SCORE	100
				RESULT	Playground Zone

Playground Name	Harvest Ridge Park				
Playground Address	Harvest Ridge Drive				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25	1	
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					5
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50	1	
		Further Than 50 M	0.00		
					5
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	75
				RESULT	Playground Area

Playground Name	Henderson Park				
Playground Address	201 Harvest Ridge Drive				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	85
				RESULT	Playground Zone

Playground Name	Spruce Ridge Dr Park				
Playground Address	311 Spruce Ridge Rd				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	85
				RESULT	Playground Zone

Playground Name	McLaughlin Park				
Playground Address	145 McLaughlin Dr				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	85
				RESULT	Playground Zone

Playground Name	Jesperdale Park				
Playground Address	1205 Calahoo Rd				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00		
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20	1	
					8
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50	1	
		Non-traversable	0.10		
					10
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	43
				RESULT	Playground Area

Playground Name	Dillon Park				
Playground Address	120 Deer Park Blvd				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	85
				RESULT	Playground Zone

Playground Name	Longview Park				
Playground Address	Longview Dr				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	67
				RESULT	Playground Area

Playground Name	Hilldowns' Park				
Playground Address	Longview Dr / King St				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	67
				RESULT	Playground Area

Playground Name	Spruce Village Park				
Playground Address	Victoria Ave / Spruce Village Dr E				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00		
		Within 50 M	0.50	1	
		Further Than 50 M	0.00		
					5
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	62
				RESULT	Playground Area

Playground Name	Greystone Park				
Playground Address	77 Greystone Dr				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	85
				RESULT	Playground Zone

Playground Name	Brookside Park				
Playground Address	28 Brookside Cres				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00	1	
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50		
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					20
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40	1	
		Both Sides	0.00		
					2
				TOTAL SCORE	79
				RESULT	Playground Area

Playground Name	McLeod Avenue Park				
Playground Address	McLeod Ave				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00	1	
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20		
		< 50 m, any facilities	0.20		
					40
2. FENCING	20	Fully Traversable	1.00		
		Partially Traversable	0.50		
		Non-traversable	0.10	1	
					2
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	67
				RESULT	Playground Area

Playground Name	Lakewood Park				
Playground Address	Lawson Blvd / McLeod Ave				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00		
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20	1	
		< 50 m, any facilities	0.20		
					8
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00	1	
		Playground Side	0.40		
		Both Sides	0.00		
					5
				TOTAL SCORE	58
				RESULT	Playground Area

Playground Name	Grove Meadows Basketball Court				
Playground Address	20 Grove Meadow Dr				
INSTALLATION CRITERION	**MAX. POINTS VALIE (MPV)**	**DESCRIPTION**	**WEIGHT FACTOR (WF) as per Guidelines**	**Calculation Inputs**	**SCORE**
1. PLAYGROUND TYPE	40	Frontage ≥ 50 m, Playground Capacity (number of children) 16 or more	1.00		
		Frontage ≥ 50 m, Playground Capacity (number of children) 5 to 15	0.75		
		Frontage ≥ 50 m, Playground Capacity (number of children) 1 to 4	0.40		
		Frontage ≥ 50 m, No play equipment: sports field or open field only	0.20	1	
		< 50 m, any facilities	0.20		
					8
2. FENCING	20	Fully Traversable	1.00	1	
		Partially Traversable	0.50		
		Non-traversable	0.10		
					20
3. ROAD CLASSIFICATION	20	Local	1.00		
		Minor Collector (Urban)/ Local (Rural)	0.75		
		Collector (Rural and Urban)	0.50	1	
		Major Collector or Minor Arterial (Urban) / Arterial (Rural)	0.25		
		Major Arterial or Expressway (Urban) / Freeway (Rural)	0.00		
					10
4. PROPERTY LINE SEPARATION	10	Abuts Roadway	1.00	1	
		Within 50 M	0.50		
		Further Than 50 M	0.00		
					10
5. Playground ENTRANCE	5	Main Entrance / Multiple Secondary Entrances	1.00	1	
		Secondary Entrance	0.60		
		None	0.00		
					5
6. SIDEWALKS	5	None (or Non-Playground Side)	1.00		
		Playground Side	0.40		
		Both Sides	0.00	1	
					0
				TOTAL SCORE	53
				RESULT	Playground Area

Appendix G – CGEPSL SPEED LIMIT ANALYSIS RESULT AND RECOMMENDATION OF EACH ARTERIAL/COLLECTOR ROAD SEGMENT

Segmt_ID	Roadway	FROM	TO	Lane Number	Classification	Surface	Segment Length	Posted Speed Limit	CGEPSL Calculated Speed Limit	Recommended Speed Limit*
1	Nelson Drive	MCLEOD AVENUE	HWY 16A E	3	Collector	Asphalt	413	50	50	**50**
2	Calahoo Road	MILLGROVE DRIVE	WESTON DRIVE	2	Major Arterial	Asphalt	731	60	60	**60**
3	Grove Drive W	UNNAMED DRIVE	COPPERHAVEN DRIVE	2	Major Arterial	Asphalt	334	50	50	**50**
4	Westwind Drive	CENTURY ROAD	KENTON WAY	2	Collector	Asphalt	265	50	50	**50**
5	Spruce Ridge Drive	SPRING GATE	JENNIFER HEIL WAY	2	Collector	Asphalt	808	50	40	**40**
6	Hawthorne Gate	JENNIFER HAIL WAY	HEATHERGLEN DRIVE	2	Collector	Asphalt	323	30	30	**30**
7	Heatherglen Drive	GROVE DRIVE	HAWTHOME GATE	2	Collector	Asphalt	636	50	40	**40**
8	Deer Park Drive	DALTON LINK	GROVE DRIVE	2	Collector	Asphalt	443	50	50	**50**
9	Spruce Ridge Road	SPRINWOOD WAY	SPRUCE RIDGE DRIVE	2	Collector	Asphalt	709	50	50	**50**
10	Harvest Ridge Drive	GROVE DRIVE WEST	GROVE DRIVE WEST	2	Collector	Asphalt	1756	50	50	**50**
11	Pioneer Road	GARNEAU LINK	GROVE DRIVE	2	Collector	Asphalt	819	50	60	**50**
12	Prescott Boulevard	RANGE ROAD 271	PENN PLACE	2	Collector	Asphalt	484	50	50	**50**
13	Greenbury Boulevard	GROVE DRIVE	PIONEER ROAD	1	Collector	Asphalt	780	50	60	**50**
14	Lakeland Drive	GROVE MEADOW DRIVE	MCLEOD AVENUE	2	Collector	Asphalt	715	50	50	**50**
15	McLeod Avenue	CENTURY ROAD	LAWSON BOULEVARD	2	Collector	Asphalt	642	50	50	**50**
16	Century Road	YELLOWHEAD HWY	VANDERBILT COMMON	2	Major Arterial	Asphalt	600	60	60	**60**
17	Victoria Avenue	SPRUCE VILLAGE DRIVE W	VANDERBILT COMMON	2	Collector	Asphalt	807	50	50	**50**
18	Spruce Village Drive W	VANDERBILT COMMON	VICTORIA AVENUE	2	Collector	Asphalt	412	50	50	**50**
19	South Avenue	GOLDEN SPIKE ROAD	CENTURY ROAD	2	Collector	Asphalt	1632	50	60	**50**
20	Diamond Avenue	OSWALD DRIVE	CENTURY ROAD	2	Collector	Asphalt	1643	50	50	**50**
21	Century Road	HWY 16A E	TWR 524	2	Major Arterial	Asphalt	3239	80	70	**70**
22	McLeod Avenue	CALAHOO ROAD	KING STREET	4	Collector	Asphalt	653	50	40	**40**
23	Brookwood Drive	KING STREET	CENTURY ROAD	2	Collector	Asphalt	826	50	40	**40**
24	Longview Drive	FAIRWAY DRIVE	KINGS LINK	2	Collector	Asphalt	1033	50	50	**50**
25	Fairway Drive	LONGVIEW DRIVE	LINKS ROAD	2	Collector	Asphalt	718	50	40	**40**
26	Links Road	FAIRWAY DRIVE	GROVE DRIVE	2	Collector	Asphalt	263	50	50	**50**
27	Longview Drive	CALAHOO ROAD	FAIRWAY DRIVE	2	Collector	Asphalt	848	50	50	**50**
28	Fieldstone Drive	FIELDSTONE CRESCENT	GROVE DRIVE	2	Collector	Asphalt	549	50	40	**40**
29	Linkside Boulevard	LINKSVIEW DRIVE	LONG VIEW DRIVE	2	Collector	Asphalt	419	50	40	**40**
30	Avonlea Way	ARTHUR WAY	CALAHOO ROAD	2	Collector	Asphalt	655	50	40	**40**
31	Calahoo Road	GROVE DRIVE	WOODHAVEN DRIVE	2	Major Arterial	Asphalt	520	60	70	**60**
32	Copperhaven Drive	GROVE DRIVE WEST	SPRING LINK	2	Collector	Asphalt	564	50	50	**50**
33	Jennifer Heil Way	YELLOWHEAD HWY	DALTON LINK	1	Major Arterial	Asphalt	668	60	90	**60**
34	Jennifer Heil Way	DALTON LINK	GROVE DRIVE	2	Major Arterial	Asphalt	403	60	80	**60**
35	Jennifer Heil Way	GROVE DRIVE	HAWTHOME GATE	2	Major Arterial	Asphalt	633	60	70	**60**
36	Jennifer Heil Way (NB)	SPRUCE RIDGE DRIVE	NELSON DRIVE	2	Major Arterial	Asphalt	422	60	70	**60**
37	Jennifer Heil Way (SB)	SPRUCE RIDGE DRIVE	NELSON DRIVE	2	Major Arterial	Asphalt	424	60	60	**60**
38	Jennifer Heil Way (NB)	NELSON DRIVE	MCLEOD AVENUE	2	Major Arterial	Asphalt	581	60	70	**60**
39	Jennifer Heil Way (SB)	NELSON DRIVE	MCLEOD AVENUE	3	Major Arterial	Asphalt	580	60	70	**60**
40	Jennifer Heil Way	MCLEOD AVENUE	HWY 16A E	4	Major Arterial	Asphalt	368	60	60	**60**
41	Calahoo Road	WESTON DRIVE	HWY 16A E	2	Major Arterial	Asphalt	613	60	60	**60**
42	Golden Spike Road (NB)	HWY 16A E	DIAMOND AVENUE	2	Major Arterial	Asphalt	586	60	70	**60**
43	Golden Spike Road (SB)	HWY 16A E	DIAMOND AVENUE	2	Major Arterial	Asphalt	587	60	70	**60**
44	Campsite Road	HWY 16A E	TWR 524	2	Major Arterial	Asphalt	3217	60	80	**60**
45	McLaughlin Drive	NELSON DRIVE	MCLEOD AVENUE	2	Collector	Asphalt	610	50	40	**40**
46	Millgrove Drive	GROVE DRIVE	CALAHOO ROAD	2	Collector	Asphalt	1095	50	50	**50**
47	Aspenglen Drive	AVONLEA WAY	GROVE DRIVE	2	Collector	Asphalt	665	50	40	**40**
48	Spruce Village Way	VICTORIA AVENUE	GROVE DRIVE	2	Collector	Asphalt	155	50	50	**50**
49	Calahoo Road	AVONLEA WAY	GROVE DRIVE	2	Major Arterial	Asphalt	690	60	70	**60**
50	Century Road	VANDERBILT COMMON	GROVE DRIVE	2	Major Arterial	Asphalt	573	60	60	**60**
51	Prospect Way	RANGE ROAD 271	PROSPECT PLACE	2	Collector	Asphalt	210	50	50	**50**

52	Tonewood Boulevard	GROVE DRIVE	TIMBER WAY	2	Collector	Asphalt	343	50	50	**50**
53	McLeod Avenue	NELSON DRIVE	CALAHOO ROAD	4	Collector	Asphalt	859	50	60	**50**
54	Spruce Ridge Road	GROVE DRIVE WEST	SPRUCE RIDGE DRIVE	2	Collector	Asphalt	551	50	50	**50**
55	King Street	KINGS LINK	GROVE DRIVE	2	Collector	Asphalt	869	50	50	**50**
56	Century Road	GROVE DRIVE	GROVE MEADOW DRIVE	2	Major Arterial	Asphalt	787	50	60	**50**
57	Golden Spike Road	DIAMOND AVENUE	TWR 524	2	Major Arterial	Asphalt	2648	60	80	**60**
58	King Street	WOODHAVEN DRIVE	HWY 16A	4	Collector	Asphalt	1183	50	50	**50**
59	Woodhaven Drive	CALAHOO ROAD	KING STREET	2	Collector	Asphalt	863	50	50	**50**
60	Greystone Drive	GROVE DRIVE	GROVE MEADOW DRIVE	2	Collector	Asphalt	875	50	50	**50**
61	Weston Drive	NELSON DRIVE	CALAHOO ROAD	2	Collector	Asphalt	918	50	40	**40**
62	King Street	GROVE DRIVE	WOODHAVEN DRIVE	2	Collector	Asphalt	713	50	40	**40**
63	Deer Park Boulevard	DEER PARK DRIVE	DEER PARK DRIVE	2	Collector	Asphalt	1075	50	50	**50**
64	Grove Drive W	HARVEST RIDGE DRIVE	JENNIFER HEIL WAY	2	Major Arterial	Asphalt	1266	50	70	**50**
65	McLeod Avenue	KING STREET	CENTURY ROAD	2	Collector	Asphalt	1267	50	40	**40**
66	McLeod Avenue	JENNIFER HEIL WAY	NELSON DRIVE	4	Collector	Asphalt	839	50	50	**50**
67	Vanderbilt Common	CENTURY ROAD	SPRUCE VILLAGE DRIVE E	2	Collector	Asphalt	665	50	50	**50**
68	Grove Drive	CENTURY ROAD	PIONEER ROAD	2	Major Arterial	Asphalt	1674	50	70	**50**
69	Grove Drive	CALAHOO ROAD	CENTURY ROAD	2	Major Arterial	Asphalt	1636	60	60	**60**
70	Grove Drive	JENNIFER HAIL WAY	CALAHOO ROAD	2	Major Arterial	Asphalt	1649	60	70	**60**
71	Pioneer Road	GROVE DRIVE	MCLEOD AVENUE	2	Major Arterial	Asphalt	1276	60	80	**60**
72	Nelson Drive	JENNIFER HEIL WAY	MCLEOD AVENUE	2	Collector	Asphalt	1203	50	50	**50**
73	Diamond Avenue	CAMPSITE ROAD	GOLDEN SPIKE ROAD	2	Collector	Asphalt	1621	50	60	**50**
74	Grove Meadow Drive	CENTURY ROAD	LANDRY COURT	2	Collector	Asphalt	867	50	50	**50**
75	Calahoo Road	ADELAIDE COURT	LONGVIEW DRIVE	2	Collector	Asphalt	789	50	40	**40**
76	Century Road	BROOKWOOD DR/GROVE MEADOW DR	HWY 16A E	3	Major Arterial	Asphalt	1060	60	70	**60**

* The finally recommended posted speed limit is based on a comprehensive consideration integrating CGEPSL calculations, conditions and characteristics of the subject roadway segmentation, the speed limit consistency on the subject roadway, as well as the speed reduction needs of Spruce Grove