OPERATIONS COMMITTEE
Tuesday, October 11, 2022 – 9:30 a.m.
County of Renfrew Administration Building
AGENDA

1. Call to order.

2. Land acknowledgement.

3. Roll call.

4. Disclosure of pecuniary interest and general nature thereof.

5. Adoption of minutes of previous meeting held on September 12, 2022 (attached).

6. Delegations: None at time of mailing.

7. Public Works and Engineering Department Page

8. New Business.

9. Closed Meeting: None at time of mailing.

10. Date of next meeting (at the call of the Chair) and adjournment.

NOTE: a) **County Council: Wednesday, October 26, 2022.**
b) Submissions received from the public, either orally or in writing may become part of the public record.

Strategic Plan

Strategic Plan Goal # 1: To inform the Federal and Provincial government on our unique needs so that Renfrew County residents get their "fair share".

Initiatives:

a) Create a strategic communications plan.
b) Identify and advocate for issues important to the County of Renfrew.

Strategic Plan Goal # 2: Fiscal sustainability for the Corporation of the County of Renfrew and its ratepayers.

Initiatives:

a) Commitment from Council supporting principles within the Long-Term Financial Plan.
b) Establish Contingency Plan to respond to provincial and federal financial pressures and opportunities beyond the Long-Term Financial Plan.

Strategic Plan Goal # 3: Find cost savings that demonstrate our leadership while still meeting community needs.

Initiatives:

a) Complete community needs assessment.
b) With identified partners implement plan to optimize service delivery to the benefit of our residents.

Strategic Plan Goal # 4: Position the County of Renfrew so that residents benefit from advances in technology, to ensure that residents and staff have fair, affordable and reasonable access to technology.

Initiatives:

a) Ensure that the County of Renfrew is top of the list for Eastern Ontario Regional Network funding for mobile broadband.
b) Lobby for secure and consistent radio systems for first responders and government.
c) Put a County of Renfrew technology strategy in place.

COUNTY OF RENFREW

PUBLIC WORKS AND ENGINEERING DEPARTMENT REPORT

TO: Operations Committee

FROM: Lee Perkins, C.E.T., MBA, Director of Public Works and Engineering

DATE: October 11, 2022

SUBJECT: Department Report

INFORMATION

1. **Monthly Project Status Report [Strategic Plan Goal No.3]**

   Attached as Appendix I is the Monthly Project Status Report. Additional project specific information is provided in the Divisional reports.

2. **Capital Program Variance Report [Strategic Plan Goal No. 3]**

   Attached as Appendix II is the Capital Program Variance Report. Mr. Hanrath will provide an overview of the 2022 Capital Projects at the meeting.

3. **Urbanization of Section of County Road 37 (Murphy Road) – Town of Petawawa**

   Attached as Appendix III is an email from Mr. David Unrau, Director of Public Works for the Town of Petawawa, stating that the Town plans to move forward with Jp2g Consultants Inc. for a design to urbanize the section of County Road 37 (Murphy Road) between County Road 26 (Doran Road) and County Road 51 (Petawawa Boulevard). Once the design is complete, the cost split of the urbanization will be ascertained. The following are stipulations as to the County's responsibilities regarding reconstruction and detailed as part of the Ontario Good Roads Association Road Rationalization:

1. The County shall be responsible for:

    i) The construction of an urban cross-section up to the minimum "Geometric Design Standards for Undivided Urban Roads in Ontario" (i.e. two driving and one parking lane), but in no case less than the centre 7.0 m of any County road in an urban area.
    ii) The construction of curbs and gutters.
    iii) The construction of the paved boulevard between curb and sidewalk to a maximum of 0.5 m width.
    iv) The construction of catchbasins and the portion of storm sewers required to drain the County road. (In no case will the County drain land more than 25 m from the centreline of the road.)
    v) The construction of a full rural section within any urban area.
    vi) The remaining costs of those works covered by Section 5, requested by the local municipality, and deemed feasible and economical by the Director of Public Works and Engineering, or designate.

2. Land acquisition when land is required to accommodate the road section specified in 1i) shall be the responsibility of the County.

3. The County shall be responsible for utility relocation costs as outlined in the Public Service Works on Highways Act, R.S.O. 1990, c. P.49, as amended.

4. The local municipality shall be responsible for:

    i) 100% of the construction of all sidewalks (Section 55 of the Municipal Act, 2001, as amended).
    ii) The construction of that portion of storm sewers over and above that required for County road drainage, based on the following:

    Local share % = 100% less County's Share %

County Share = $\frac{\text{(Theoretical pipe diameter to accommodate CRD*)}}{\text{Actual pipe diameter to accommodate full drainage area}} \times 100\%$

*CRD – County Road Drainage

iii) 100% of the cost of all local services, such as water or sanitary sewerage works.
iv) 100% of that portion of the paved boulevard between curb and sidewalk beyond 0.5 m.
v) Land acquisition when required to accommodate road elements beyond that specified in Section 1).
vi) 50% of the construction of additional parking lanes.
vii) 100% of the construction of paved shoulders whether behind curbs and/or gutters or not.
viii) Engineering in proportion with the cost of its share of the project.
ix) There will be a 7% administration charge on County "in-house" (but not contracted) work.

5. The County shall enter into an agreement for any proposed reconstruction (under the auspices of Section 20(1) of the Municipal Act, 2001, as amended). Costs shall be borne according to this policy.

The current budget for this section in 2023 is proposed to be $481,000 for pulverize and repave with no contingency for design work. To urbanize a County Road is approximately 1.5 times the budgeted amount. When necessary, staff will bring forward a recommendation on this project at a future date.

RESOLUTIONS

4. **Rural Ontario Municipal Association (ROMA) 2023 Conference**

Recommendation: THAT the Operations Committee recommends that County Council approve a delegation request at the 2023 Rural Ontario Municipal Association (ROMA) Annual Conference with the Minister of Infrastructure to discuss growth related and shovel ready projects including County Road 51 (Petawawa Boulevard) in the Town of Petawawa and Campbell Drive in the Township of McNab/Braeside.

Background

The 2023 ROMA Annual General Meeting and Conference is back live and in person for the first time in two years. In the past, the Province has invited municipalities to have requests to be a delegation at the conference by November 15.

Staff are looking to lobby for funding to assist with growth related and shovel ready projects as well as the proposed widening of County Road 51 (Petawawa Boulevard) and the assumption of Campbell Drive into the County Road System which will add significant challenges to the County's 10-year Asset Management Plan.

BY-LAWS

5. **Request for Road Assumption – Township of McNab/Braeside [Strategic Plan Goal No. 3]**

Recommendation: THAT the Operations Committee recommends that County Council endorse the assumption of Campbell Drive into the County Road System, effective January 1, 2023, subject to the execution of maintenance agreements between the County of Renfrew and the Township of McNab/Braeside with respect to maintenance related matters; AND FURTHER THAT a By-law be passed to amend By-law 10-15, being a By-law to Consolidate all By-laws with respect to Roads and Bridges included in the County Road System.

Background

Attached for Committee's information as Appendix IV is a resolution dated May 3, 2022 from the Township of McNab/Braeside requesting road assumption for Campbell Drive (Reference map is attached as Appendix V).

The resulting Annual Average Daily Traffic (AADT) traffic counts from August 9 to 17, 2022, attached as Appendix VI was 1,346 vehicles. Also attached for information as Appendix VII is a Speed Study indicating that 84.8% of vehicles are travelling in excess of the posted speed limit.

The Department utilizes the Ontario Good Roads Association (OGRA) Road Rationalization criteria and weighting system, attached as Appendix VIII, in evaluating assumption requests. This document highlights the 12 criteria and associated weightings to assess whether or not a roadway meets upper tier road standards as an urban centre collector or an urban arterial extension. It also identifies a cumulative "cut-off" point rating of 6 for the evaluation process. Using the theory that the road must meet either the criteria for urban centre connector or the criteria for urban arterial extension worth 3 points (Criterion 7), plus all four criteria for traffic speed (Criterion 9), road surfaces (Criterion 10), traffic volumes (Criterion 11) and

road right-of-way (Criterion 12) worth a combination of 3 points, or another combination of criteria to have a total weight of 6, this road meets the criteria as outlined by OGRA.

Attached as Appendix IX are the results for the roadway. A total of 69% was obtained using all criteria as outlined in the OGRA document. Using the five specific Criterion 7, 9, 10, 11 and 12, Campbell Drive scores 36 out of a possible 36 for a rating of 100%. A total of 100% is required by the OGRA standards for an upper tier to assume the roadway.

Please note that this roadway is currently in poor condition and once it is part of the County Road System, this asset will affect the County's 10-year Asset Management Plan.

Historically, the following three principles have been employed in road rationalization reviews:

- Upper tier roads, that are primary transportation corridors, should provide continuous roadway services throughout the County;
- Upper tier roads should be capable of being upgraded to a reasonable standard, consistent with the service provided; and,
- Upper tier roads should represent the shortest practical route along existing roads and streets.

Since the County does not have regular maintenance operations on this roadway, it will be necessary to enter into an inter-municipal, cost-sharing arrangement with the Township of McNab/Braeside with respect to maintenance operations such as winter control, street sweeping, etc. Similar agreements are currently in place with the Towns of Arnprior, Deep River and Renfrew.

The following summarizes the respective roles and responsibilities of the local municipality and the County:

County of Renfrew

- approves signage within the right-of-way;
- issuance of right-of-way work permits;
- control of pedestrian crossings/traffic control signals (in keeping with policies);

- shares responsibility with the Town for storm sewer maintenance/ rehabilitation.

Township of McNab/Braeside

- sidewalk construction and maintenance;
- underground infrastructure (e.g., watermains, sanitary sewers, storm sewers (shared with County));
- maintenance, installation, operation of streetlights;
- snow removal (County does not remove snow from its roadways);
- driveway entrances are the responsibility of the individual property owners.

6. **Policy for Decorative Crosswalks [Strategic Plan Goal No. 3]**

Recommendation: THAT the Operations Committee recommends that County Council pass a By-law approving Corporate Policy PW-18 – Decorative Crosswalks on County Roads which outlines the procedure for the request and approval of the installation of a decorative crosswalk.

Background

Committee received a request for a decorative crosswalk at the August 9, 2022 meeting. Staff were directed to develop a policy for future requests. Attached as Appendix X is a Draft Corporate Policy PW-18 for Decorative Crosswalks on County Roads.

Decorative crosswalks are typically understood to be crosswalks that include elements (colour, design, imagery, texture and/or material) that are considered aesthetic enhancements above and beyond standard crosswalk treatments. All requests for decorative crosswalks must be funded by the proponent for both installation and maintenance as well as have the endorsement of the Partner Municipality.

7. **Operations Division**

Attached as Appendix XI is the Operations Division Report, prepared by Mr. Richard Bolduc, Manager of Operations, providing an update on activities.

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Capital Monthly Project Status Report - October 2022

Appendix I

Project Name/Municipality		Location		Lengths	Description	Status/Schedule							Comments
		From	To			Env. Assess	Survey	Design	Tender/RFP	Award	Const. Start	Const. End	
ROAD RECONSTRUCTION/REHABILITATION													
21	Beachburg Road	Buchannan's Pit Entance	Urban Beginning	2.49	Rehabilitation	100%	100%	100%	May	June	September	October	Design by Stantec; Construction by H & H
	Whitewater Region												
512	Foymount Road	B257	Verch Road	4.70	Reconstruction	100%	100%	95%	March, 2023	April, 2023	July, 2023	Nov., 2023	Design by BTE; Coordinating Utilities;
	Bonnechere Valley												
BRIDGE/CULVERT RECONSTRUCTION/REHABILITATION													
B002	Bonnechere River Bridge	Admaston/Bromley (Bonnechere Road)			Rehabilitation	100%	100%	100%	2021	2021	May	August	Design by Stantec; Construction by Clearwater
B005	Scollard Bridge	Admaston/Bromley (Pucker Street)			Superstructure Replacement	100%	100%	100%	May	June	July	Oct. 14	Design by HP Engineering; Tender Closes May 26th
B022	Indian River Bridge	Laurentian Valley (Sandy Beach Road)			Rehabilitation	100%	100%	100%	March	May	June	Nov. 14	Design by WSP; Tender Closed April 19th
B056	Colterman Bridge	Greater Madawaska (Colterman Road)			Clean and Paint	100%	100%	100%	May	June	October	October	Day Labour Project
B057	Mount St. Patrick Bridge	Greater Madawaska (Mount St. Patrick Road)			Superstructure Replacement	100%	100%	100%	March	April	May	Oct. 25	Design by HP Engineering; Construction by Coco Paving
B064	Pilgrim Road Bridge	Brudenell, Lyndoch & Raglan (Pilgrim Road)			Rehabilitation	100%	100%	100%	May	June	2023	2023	Design by JL Richards
B068	Schimmins Creek Bridge	Brudenell, Lyndoch & Raglan (Welk Road)			Clean and Paint	100%	100%	100%	May	June	September	October	Day Labour Project
B150	Dam Lake Bridge	Madawaska Valley (Stanley Olsheski Road)			Clean and Paint	100%	100%	100%	May	June	August	October	Day Labour Project
B203	Petawawa River Bridge	Petawawa (CR51 Petawawa Boulevard)			Rehabilitation	100%	100%	100%	March	April	May	Nov. 4	Design by WSP; Construction by BEI
B257	Harrington Creek Bridge	Bonnechere Valley (CR512 Foymount Road)			Replace w/ Culvert	90%	100%	90%	2023	2023	2023	2023	Design by BTE; Part of 512 Reconstruction
B319	Bucholtz Bridge	Laurentian Valley (CR58 Round Lake Road)			Rehabilitation	100%	100%	100%	February	April	June	Oct. 14	Design by McIntosh Perry; Construction by GMP;
C012	Farquharson's Culvert	Admaston/Bromley (S. McNaughton Road)			Rehabilitation	100%	100%	90%	May	2024	2024	2024	Design by HP Engineering
C037	Bagot Creek Culvert	Greater Madwaska (Lower Spruce Hedge Road)			Replace	100%	100%	100%	May	June	August	Oct. 14	Design by HP Engineering; Construction by Day Labour
C040	Snake River Culvert	Admaston/Bromley (CR8 Cobden Road/Main Street)			Rehabilitation	100%	100%	30%			2024	2024	Day Labour Project
C134	Campbell Drive Culvert	McNab/Braeside (Campbell Drive)			Rehabilitation	100%	100%	90%	May	2024	2024	2024	Design by HP Engineering
C137	Hanson Creek Culverts	McNab/Braeside (Robertson Line)			Lining w/ Road Works	90%	100%	90%	May	2023	2023	2023	Design by WSP; Construction by Day Labour
C152	Wadsworth Lake Culvert	Madawaska Valley (Old Barry's Bay Road)			Replace	100%	100%	100%	May	June	July	September	Design by HP Engineering
C197	Etmanskie Swamp Culvert	Madawaska Valley (CR62 John Street)			Rehab or Replace	90%	100%	60%	April	2023	2023	2023	Design by JL Richards; Construction by Day Labour
C269	Jacks Lake Culverts	Killaloe, Hagarty & Richards (CR58, Round Lake Road)			Replace	100%	100%	100%	April	May	July	July	Design by HP Engineering; Construction by Day Labour
C302	Wingle Creek Twin Culverts	Killaloe, Hagarty & Richards (Rochfort Road)			Replace	100%	100%	60%	May	June	August	August	Design Internal; Construction by Day Labour
FUTURE ENGINEERING													
B007	Butler Bridge	Admaston/Bromley (Butler Road)			Design for Rehabilitation	90%	90%	40%	May	June	2023	2023	Design by Stantec
B044	Douglas Bridge	Admaston/Bromley (CR5 Stone Road)			Design for Rehabilitation	30%	60%	25%	July	August	2023	2023	Design TBA; DCS done in 2021
B102	Brennans Creek Bridge	Killaloe, Hagarty & Richards (CR512 Queen Street)			Design for Rehabilitation	50%	30%	10%	May	June	2023	2023	Design by Stantec
B108	Tramore Bridge	Killaloe, Hagarty & Richards (Tramore Road)			Design for Rehabilitation	30%	10%	0%	August	August	2023	2023	Design TBA
B156	Burnt Bridge	Brudenell, Lyndoch & Raglan (Burnt Bridge Road)			Design for Rehabilitation	30%	10%	0%	June	June	2023	2023	Design TBA
B232	Cochrane Creek Bridge	North Algona Wilberforce (Cement Bridge Road)			Design for Rehabilitation	30%	10%	0%	June	July	2023	2023	RFP for design issued
B310	Ski Hill Bridge	Laurentian Valley (CR58 Round Lake Road)			Design for Rehabilitation	30%	60%	25%	July	August	2023	2023	Design TBA; DCS done in 2021
C001	Berlanquet Creek Culvert	Admaston/Bromley (CR5 Stone Road)			Design for Replacement	50%	20%	10%	July	August	2023	2023	Design by HP Engineering
C025	Borne Road Culvert	Laurentian Valley (CR58 Round Lake Road)			Design for Rehabilitation	100%	100%	90%	2023	2023	2023	2023	Design by WSP
C051	Harris Creek Culvert	Admaston/Bromley (Proven Line)			Design for Replacement	50%	30%	10%	June	July	2023	2023	Internal Design; Geotech needed
C130	Lochiel Creek Culvert North	McNab/Braeside (CR63			Design for Replacement	50%	30%	10%	June	July	2023	2023	Design by Stantec
C191	Dicks Road Culvert	Laurentian Valley (Dicks Road)			Design for Replacement	50%	30%	10%	June	July	2023	2023	Design by Stantec
C201	Broomes Creek Culvert	Whitewater Region (CR7 Foresters Falls Road)			Detailed Design w/ Dam	90%	80%	50%	April	May	2023	2023	MCEA Done, Design by JLR
C204	Bellowes Creek Culvert	Whitewater Region (CR12 Westmeath Road)			Design for Rehabilitation	90%	60%	30%	May	June	2023	2023	Design by WSP
C268	St. Columbkille's Culvert	Laurentian Valley (CR58 Round Lake Road)			Design for Replacement	50%	30%	10%	May	June	2023	2023	Design by Stantec
C325	Neilson Creek Culvert	Bonnechere Valley (Clear Lake Road)			Design for Replacement	50%	10%	10%	May	June	2023	2023	Design by Stantec
30	Lake Dore Road	North Algona Wilberforce (From Highway 60 to Sperberg)			Design for Rehabilitation	100%	100%	90%	February	March	2023	2023	Design by Tatham

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Operations Division Monthly Project Status Report - October 2022
Department of Public Works & Engineering

OPERATIONS TENDERS

	Type	Description	Term (Years)	Type	Specification	Tender	Award	Start	Complete	Status/Comments
1	Pavement Marking	Paint/Glass Beads/Lines/Symbols	1+(+1+1+1+1)	Equipment/Material	March	March	April	June	November	Ongoing
2	Street Sweeping	Winter/Debris Removal	1	Equipment	March	April	April	May	June	**Complete**
3	Manhole and Catch Basin Cleaning	Winter/Debris Removal	1	Equipment	March	April	April	June	June	**Complete**
4	Roadside Brushing	Tree/Brush Removal	1	Equipment	May	June	June	July	November	Ongoing
5	Steel Sign Post Quotation	Sign Installation Hardware	1	Material	March	April	April	May	August	**Complete**
6	Weed Control	Wild Parsnip/Poison Ivy	5	Equipment/Material	Complete	2019	2019	June	July	**Complete**
7	Signs &Traffic Control Equipment	Road Signage	1	Material	March	April	April	May	October	Ongoing
8	Winter Sand	Winter Abrasives	1	Supply/Delivery/Process	June	July	August	August	October	Ongoing
9	Loader Rental	Winter Operations	1	Equipment	July	July	August	November	April	**Complete**
10	AVL Service Renewal	Automatic Vehicle Location	10	Application/Network/Data	May	2020	2020	June	2030	**Complete**
11	Shouldering	Granular/Sealing	1	Material/Installation	June	July	August	August	October	Ongoing
12	Calcium Chloride	Winter Operations	1	Material	September	September	October	October	October	Ongoing
13	Crack Sealing	Pavement Preservation	1	Material/Installation	May	July	September	September	October	Ongoing
14	Curb Repair	Preservation	1	Material/Repair	May	August	August	September	October	Ongoing

EQUIPMENT TENDERS

	Tender	Description	Quantity	Type	Specification	Tender	Award	Delivery		Status/Comments
1	HDT (Heavy Duty Truck) 2021	Combination Plow/Spreader	1	Replace	March	2021	2021	October		Awaiting Delivery
2	HDT (Heavy Duty Truck) 2022	Combination Plow/Spreader	1	Replace	February	May	June	2023		Awaiting Delivery
3	LDT (Light Duty Truck(s))	(**7**-1/2 ton & **1**-3/4 ton 4WD)	8	Replace	February	March	April	December		Awaiting Delivery
4	Service Vehicle 2021	PW Operations	1	New	March	2021	2021	July		**Complete**
5	Service Vehicle 2021	PW - ES	1	New	March	2021	2021	June		**Complete**
6	Service Vehicle 2022	PW Operations	1	Replace	February	June	August	December		Awaiting Delivery
7	Tractor	Tractor and Attachments	1	Replace	February	April	June	July		**Complete**
8	Backhoe	Backhoe Loader and Attachments	1	Replace	February	May	June	December		Awaiting Delivery
9	Enclosed Trailer	Construction Section	1	Replace	August	September	September	October		Ongoing
10	Dual Axle Float	16 ft	1	Replace	August	September	September	October		Ongoing
11	Line Paint Machine	PW Operations	1	Replace	August	September	September	December		Ongoing
12	U-Body Water Tank	PW Operations - SWP	1	Replace	August	September	September	December		Ongoing
13	Sweeper Attachment	Tractor Mount - GP	1	Replace	May	July	August	October		Awaiting Delivery
14	Offset Roller	Shoulder Compaction	1	New	August	September	October	December		Ongoing
15	Shoulder Spreader	Shouldering Machine	1	New	August	September	October	December		Ongoing
16	Equipment Refurbishment(s)	As per Spring Inspection	Varies	Existing	May	May	June	September		**Complete**
17	AVL (Automatic Vehicle Location)	AVL/Telematics	Varies	New	April	May	June	September		**Complete**

HOUSING

	Tender	Location	Type	Type	Design	Tender	Award	Start	Complete	Status/Comments
1	Repair - Salt Storage Shed	Calabogie Garage	Construct	Rehabilitation	2022	March	April	August	September	**Complete**
2	Repair - Sand Storage Dome/Salt Storage Shed	Calabogie Garage	Construct	Rehabilitation	2022	March	April	June	July	**Complete**
3	Repair - General Site	Cobden Patrol	Construct	Rehabilitation	2022	Internal	N/A	July	July	**Complete**

ROAD MAINTENANCE AGREEMENTS/FACILITY AGREEMENTS

	Service Provider	Location	Year	Type	Start	Complete	Term			Status/Comments
1	Town of Arnprior	County Road 1, County Road 2	2022	Winter Road Maintenance	2022	2023	1			**Complete**
2	Town of Deep River	County Road 72, County Road 73	2020	Winter Road Maintenance	2020	2030	10			**Complete**
3	Town of Renfrew	County Road 20, County Road 52	2019	Winter Road Maintenance	2019	2029	10			**Complete**
4	Township of Carlow/Mayo	County Road 517	2022	Winter Road Maintenance	2022	2023	Annual			**Complete**
5	Contractor	County Road 635	2022	Winter Road Maintenance	2022	2023	Annual			**Complete**
6	Algonquins of Pikwakanagan	Golden Lake	2022	Use of facilities and materials	2022	2027	5			**Complete**
7	Bonnechere Valley	Foymount	2022	Use of facilities and materials	2022	2027	5			**Complete**

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Operations Division - Capital Monthly Project Status Report - October 2022
Department of Public Works & Engineering

Project Name/Municipality		Location		Lengths	Description	RFP/Tender	Const. Award	Const. Start	Const. End	Comments
		From	To							
ROAD RECONSTRUCTION/REHABILITATION										
1	Madawaska Street	B258 W Exp Jnt	Elgin Street	0.51	Rehabilitation	May	June	August	September	Thomas Cavanagh Construction Ltd., Ashton
	Arnprior & McNab/Braeside									
1	River Road	County Road 10 (Division Street)	Usborne Street	0.50	Rehabilitation	2021	2021	June	August	H&H Construction Inc., Petawawa
	McNab/Braeside									
1	River Road	1.1 km west of Henry Crescent	Storie Road	2.36	Rehabilitation	April	June	August	September	B.R. Fulton Construction
	McNab/Braeside									
2	White Lake Road	Mountain View Road	Waba Creek Bridge E Exp Jnt	5.44	Rehabilitation	April	May	July	August	Thomas Cavanagh Construction Ltd., Ashton
	McNab/Braeside									
7	Foresters Falls Road	Harriet Street (urban begins)	Beginning of semi-urban	0.65	Rehabilitation	May	June	August	October	Greenwood Paving (Pembroke) Ltd., Pembroke
	Whitewater Region									
13	Mountain Road	Micksburg Road	Stafford Third Line	2.78	Rehabilitation	April	May	August	September	H&H Construction Inc., Petawawa
	Laurentian Valley									
23	Highland Road	Renfrew/Lanark County Line	Sawmill Road	1.51	Rehabilitation	April	May	July	August	Thomas Cavanagh Construction Ltd., Ashton
	McNab/Braeside									
24	White Water Road	Highway 17	County Road 40 (Greenwood Road)	2.45	Rehabilitation	May	June	September	October	H&H Construction Inc., Petawawa
	Laurentian Valley									
29	Drive-In Road	City of Pembroke (South Limits)	Clearview Crescent	2.15	Rehabilitation	May	June	August	September	Greenwood Paving (Pembroke) Ltd., Pembroke
	Laurentian Valley									
62	Combermere Road	Combermere South Urbam Limit	County Road 515 (Palmer Road)	1.01	Rehabilitation	March	May	July	July	Greenwood Paving (Pembroke) Ltd., Pembroke
	Madawaska Valley									
65	Centennial Lake Road	Black Donald Access Point	Deer Mountain Road	4.29	Rehabilitation	March	April	July	August	Greenwood Paving (Pembroke) Ltd., Pembroke
	Greater Madawaska									
67	Simpson Pit Road	Buckhill Road	County Road 58 (Round Lake Road)	1.42	Rehabilitation	March	May	June	July	R.G.T. Clouthier Construction Limited, Pembroke
	Killaloe, Hagarty and Richards									
508	Calabogie Road	Mill Street	County Road 511 (Lanark Road)	1.94	Rehabilitation	March	May	June	June	Thomas Cavanagh Construction Limited, Ashton
	Greater Madawaska									
512	Foymount Road	County Road 66 (Opeongo Road)	Hubers Road	3.68	Rehabilitation	May	June	August	September	R.G.T. Clouthier Construction Limited, Pembroke
	Brudenell Lyndoch & Raglan									
517	Dafoe Road	Serran Road	County Road 62 (Combermere Road)	3.22	Rehabilitation	March	April	September	October	Greenwood Paving (Pembroke) Ltd., Pembroke
	Madawaska Valley									
Various	Scratchcoat	Various Locations	Various Locations		Scratch Coat Paving	April	May	June	September	Bonnechere Excavating Inc., Renfrew
	Various Locations									

Appendix II

2022 CAPITAL PROGRAM - ROADS/BRIDGES

Road #	Location	From	To	Length (km)	2022 BUDGET	October Projected	Variance	Carry Over
Road Reconstruction/Rehabilitation								
Note: Limits and Length of projects are approximate and subject to revision based on final design and budgets								
1	Madawaska Street	B258 W Exp Jnt	Elgin Street	0.51	159,824	259,000	99,176	0
	Arnprior							
1	River Road	County Road 10 (Division Street)	Usburne Street	0.50	520,000	520,000	0	0
	McNab/Braeside							
1	River Road	1.1km West of Henry Crescent	Storie Road	2.36	774,080	932,000	157,920	0
	McNab/Braeside							
2	White Lake Road	Mountain View Road	Waba Creek Bridge E Exp Jnt	5.44	1,088,684	1,472,000	383,316	0
	McNab/Braeside							
7	Foresters Falls Road	Harriet Street (urban begins)	Beginning of semi-urban	0.65	357,500	712,000	354,500	0
	Whitewater Region							
13	Mountain Road	Micksburg Road	Stafford Third Line	2.78	597,700	660,000	62,300	0
	Laurentian Valley							
21	Beachburg Road	Buchannan's Pit Entance (1046)	Urban Beginning	2.49	870,707	1,369,000	498,293	0
	Whitewater Region							
23	Highland Road	Renfrew/Lanark Line	Sawmill Road	1.51	324,650	314,000	-10,650	0
	McNab/Braeside							
24	White Water Road	Highway 17	County Road 40 (Greenwood Road)	2.45	826,560	942,000	115,440	0
	Laurentian Valley							
29	Drive-In Road	City of Pembroke (South Limits)	Clearview Crescent	2.15	382,700	830,000	447,300	0
	Laurentian Valley							
62	Combermere Road	Combermere S Urban Lt	County Road 515 (Palmer Road)	1.01	62,953	145,000	82,047	0
	Madawaska Valley							
65	Centennial Lake Road	Black Donald Access Point	Deer Mountain Road	4.29	1,128,270	1,256,000	127,730	0
	Greater Madawaska							
67	Simpson Pit Road	Buck Hill Road	County Road 58 (Round Lake Road)	1.42	781,000	871,000	90,000	0
	Killaloe, Hagarty and Richards							
508	Calabogie Road	Mill Street	County Road 511 (Lanark Road)	1.94	636,320	855,000	218,680	0
	Greater Madawaska							
512	Foymount Road	County Road 66 (Opeongo Road)	Hubers Road	3.68	846,400	1,509,000	662,600	0
	Brudenell Lyndoch & Raglan							
512	Foymount Road	B257	Verch Road	4.70	2,336,180	500,000	-1,836,180	1,836,180
	Bonnechere Valley							
517	Dafoe Road	Serran Road	County Road 62 (Combermere Road)	3.22	1,134,484	1,040,000	-94,484	0
	Madawaska Valley							
	Scratch Coat Paving	Various Locations			737,924	737,924	0	0
	Active Transportation	Various Locations			150,000	150,000	0	0
			ROAD RECONSTRUCTION/REHABILITATION TOTALS	**41.10**	**13,715,936**	**15,073,924**	**1,357,988**	**1,836,180**

Bridge/Culvert Reconstruction/Rehabilitation							
Structure No.	**Structure Name**	**Location**		**2022 BUDGET**	**October Projected**	**Variance**	**Carry Over**
B002	Bonnechere River Bridge	Admaston/Bromley (Bonnechere Road)		350,000	350,000	0	0
B005	Scollard Bridge	Admaston/Bromley (Pucker Street)		600,000	690,000	90,000	0
B022	Indian River Bridge	Laurentian Valley (Sandy Beach Road)		1,200,000	1,425,000	225,000	0
B056	Colterman Bridge	Greater Madawaska (Colterman Road)		100,000	100,000	0	0
B057	Mount St. Patrick Bridge	Greater Madawaska (Mount St. Patrick Road)		800,000	898,000	98,000	0
B064	Pilgrim Road Bridge	Brudenell, Lyndoch & Raglan (Pilgrim Road)		180,000	40,692	-139,308	139,308
B068	Schimmins Creek Bridge	Brudenell, Lyndoch & Raglan (Welk Road)		100,000	100,000	0	0
B150	Dam Lake Bridge	Madawaska Valley (Stanley Olsheski Road)		100,000	100,000	0	0
B203	Petawawa River Bridge	Petawawa (CR51 Petawawa Boulevard)		1,300,000	2,101,000	801,000	0
B257	Harrington Creek Bridge	Bonnechere Valley (CR512 Foymount Road)		800,000	0	-800,000	800,000
B319	Bucholtz Bridge	Laurentian Valley (CR58 Round Lake Road)		950,000	1,000,000	50,000	0
C012	Farquharson's Culvert	Admaston/Bromley (S. McNaughton Road)		135,000	38,000	-97,000	97,000
C037	Bagot Creek Culvert	Greater Madwaska (Lower Spruce Hedge Road)		342,000	315,000	-27,000	0
C040	Snake River Culvert	Admaston/Bromley (CR8 Cobden Road/Main Street)		108,000	40,000	-68,000	0
C134	Campbell Drive Culvert	McNab/Braeside (Campbell Drive)		585,000	38,000	-547,000	547,000
C137	Hanson Creek Culverts	McNab/Braeside (Robertson Line)		162,000	80,000	-82,000	82,000
C152	Wadsworth Lake Culvert	Madawaska Valley (Old Barry's Bay Road)		252,000	252,000	0	0
C197	Etmanskie Swamp Culvert	Madawaska Valley (CR62 John Street)		1,100,000	100,000	-1,000,000	1,000,000
C269	Jacks Lake Culverts	Killaloe, Hagarty & Richards (CR58, Round Lake Road)		180,000	150,000	-30,000	0
C302	Wingle Creek Twin Culverts	Killaloe, Hagarty & Richards (Rochfort Road)		180,000	150,000	-30,000	0
	General Bridge Repairs	Various Locations		200,000	200,000	0	0
			BRIDGE/CULVERT RECONSTRUCTION/REHABILITATION TOTALS	**9,724,000**	**8,167,692**	**-1,556,308**	**2,665,308**

Future Engineering							
ID	**Name**	**Location**		**2022 BUDGET**	**October Projected**	**Variance**	**Carry Over**
B007	Butler Bridge	Admaston/Bromley (Butler Road)		100,000	53,000	-47,000	0
B044	Douglas Bridge	Admaston/Bromley (CR5 Stone Road)		45,000	40,000	-5,000	0
B102	Brennans Creek Bridge	Killaloe, Hagarty & Richards (CR512 Queen Street)		54,000	36,000	-18,000	0
B108	Tramore Bridge	Killaloe, Hagarty & Richards (Tramore Road)		40,000	35,000	-5,000	0
B156	Burnt Bridge	Brudenell, Lyndoch & Raglan (Burnt Bridge Road)		25,000	25,000	0	0
B232	Cochrane Creek Bridge	North Algona Wilberforce (Cement Bridge Road)		50,000	50,000	0	0
B310	Ski Hill Bridge	Laurentian Valley (CR58 Round Lake Road)		30,000	30,000	0	0
C001	Berlanquet Creek Culvert	Admaston/Bromley (CR5 Stone Road)		38,500	32,000	-6,500	0
C025	Borne Road Culvert	Laurentian Valley (CR58 Round Lake Road)		30,000	30,000	0	0
C051	Harris Creek Culvert	Admaston/Bromley (Proven Line)		20,000	20,000	0	0
C130	Lochiel Creek Culvert North	McNab/Braeside (CR63		33,500	33,500	0	0
C191	Dicks Road Culvert	Laurentian Valley (Dicks Road)		20,000	20,000	0	0
C201	Broomes Creek Culvert	Whitewater Region (CR7 Foresters Falls Road)		100,000	100,000	0	0
C204	Bellowes Creek Culvert	Whitewater Region (CR12 Westmeath Road)		30,000	30,000	0	0
C268	St. Columbkille's Culvert	Laurentian Valley (CR58 Round Lake Road)		75,000	54,500	-20,500	0
C325	Neilson Creek Culvert	Bonnechere Valley (Clear Lake Road)		50,000	36,000	-14,000	0
30	Lake Dore Road	North Algona Wilberforce (From Highway 60 to Sperberg)		100,000	140,000	40,000	0
			FUTURE ENGINEERING TOTALS	**841,000**	**765,000**	**-76,000**	**0**
Traffic Signals - Upgrades		Various Locations		0	0	0	0
			SAFETY DEVICES TOTALS	**0**	**0**	**0**	**0**
			CAPITAL PROGRAM TOTAL:	**24,280,936**	**24,006,616**	**-274,320**	**4,501,488**

From: Dave Unrau
Sent: September 27, 2022 8:49 AM
To: Lee Perkins
Cc: Craig Kelley; Town of Petawawa
Subject: Murphy Road Urbanization
Importance: High

As discussed previously, I presented the report on the cost sharing for the Murphy Road Urbanization to Council last night. Their recommendation is to award the contract to Jp2g Consultant Ltd in the amount of $46,200 +HST. The cost sharing between the Town of Petawawa and the County of Renfrew will be one of the deliverables from this contract. An invoice will then be issued to the County when the work is completed based on the derived cost sharing.

Thank you for all your help on this matter.

I will be in contact with you to arrange a kick-off meeting for this contract.

David Unrau, P. Eng, P.M.P
Director of Public Works
Town of Petawawa

COUNTY OF RENFREW

BY-LAW NUMBER

A BY-LAW TO AMEND BY-LAW 10-15, BEING A BY-LAW TO CONSOLIDATE ALL BY-LAWS WITH RESPECT TO ROADS AND BRIDGES INCLUDED IN THE COUNTY ROAD SYSTEM

WHEREAS By-law 10-15 was passed in February 2015 establishing the County Road System and designating the roads and bridges in the municipality that formed the County Road System;

AND WHEREAS under Section 52(4) of the Municipal Act, 2001, S.O. 2001, c.25, as amended, an upper-tier municipality may add a highway, which includes a bridge, to its system.

NOW THEREFORE the Council of the Corporation of the County of Renfrew hereby enacts:

1. That Schedule 'B' of By-law 10-15 be amended by the addition of Campbell Drive to the County Road System and be designated as a County Road effective January 1, 2023.

2. That this By-law shall come into force and take effect upon the passing thereof.

READ a first time this 26th day of October 2022.

READ a second time this 26th day of October 2022.

READ a third time and finally passed this 26th day of October 2022.

DEBBIE ROBINSON, WARDEN	CRAIG KELLEY, CLERK

Regular Council Meeting Resolution Form

Date:	May 3, 2022	No:	RESOLUTION - 179-2022
Moved by Deputy Mayor Brian Armsden		Disposition:	CARRIED
Seconded by Councillor Heather Lang		Item No:	11.2

Description: Transfer of Campbell Drive to the County of Renfrew

RESOLUTION:

THAT Council request the transfer of Campbell Drive from Usborne Street to Highway 417 to the County of Renfrew.

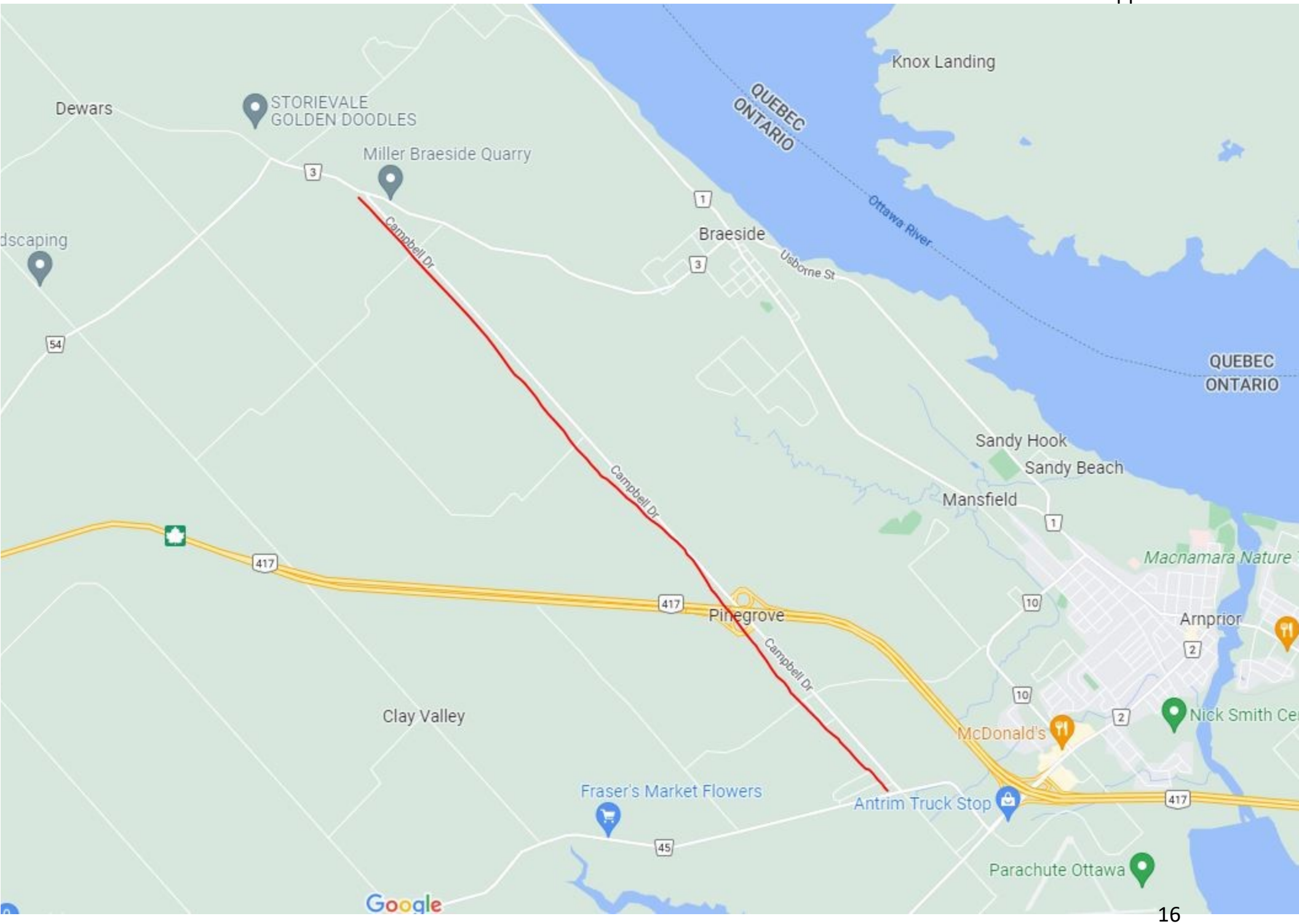
MAYOR

Recorded Vote Requested by:

	Yea	Nay
T. Peckett	____	____
B. Armsden	____	____
H. Lang	____	____
S. Brum	____	____
O. Jacob	____	____

Declaration of Pecuniary Interest:

_____
Disclosed his/her/their interest(s), vacated he/her/their seat(s),
abstained from discussion and did not vote


Knox Landing
QUEBEC
ONTARIO
Ottawa River
Dewars
STORIEVALE
GOLDEN DOODLES
Miller Braeside Quarry
Campbell Dr
Braeside
Usborne St
dscaping
54
QUEBEC
ONTARIO
Sandy Hook
Sandy Beach
Mansfield
Macnamara Nature
417
Pinegrove
Arnprior
Clay Valley
McDonald's
Nick Smith Ce
Fraser's Market Flowers
Antrim Truck Stop
45
Parachute Ottawa
Google

County of Renfrew
Public Works and Engineering

Appendix VI

Campbell Drive - 1.5km south of Usborne Street

Site Code:
Station ID:

Latitude: 0' 0.0000 South

Start	08-Aug-22		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	0	4	1	2	0	1	9	2	4	7	3	3
01:00	*	*	*	*	0	0	0	1	2	0	2	2	2	3	1	1
02:00	*	*	*	*	2	0	0	0	2	2	2	1	1	3	1	1
03:00	*	*	*	*	1	0	2	0	1	0	1	2	1	2	1	1
04:00	*	*	*	*	9	0	9	1	10	1	1	0	1	0	6	0
05:00	*	*	*	*	**64**	5	55	5	34	3	4	2	1	2	32	3
06:00	*	*	*	*	59	13	**75**	12	**68**	15	13	12	7	6	**44**	12
07:00	*	*	*	*	59	25	66	27	49	24	25	18	13	10	42	21
08:00	*	*	*	*	57	35	57	38	44	37	24	30	19	19	40	32
09:00	*	*	*	*	47	**46**	48	29	46	36	**42**	31	33	23	43	33
10:00	*	*	*	*	32	43	37	36	41	38	34	37	**52**	34	39	38
11:00	*	*	*	*	42	42	40	**39**	31	**42**	40	**49**	47	**47**	40	**44**
12:00 PM	*	*	*	*	33	48	37	31	41	42	24	**53**	44	**66**	36	48
01:00	*	*	*	*	36	33	44	33	42	47	33	43	59	40	43	39
02:00	*	*	*	*	33	42	29	45	44	65	29	52	**62**	51	39	51
03:00	*	*	**53**	60	**64**	64	**52**	81	44	**100**	27	48	52	40	**49**	66
04:00	*	*	49	**92**	47	86	39	**93**	**50**	98	29	40	42	48	43	**76**
05:00	*	*	42	83	50	**90**	36	78	31	85	**39**	32	36	20	39	65
06:00	*	*	25	35	23	43	26	50	34	52	27	36	48	26	30	40
07:00	*	*	21	24	15	39	20	35	20	29	28	21	43	27	24	29
08:00	*	*	16	21	21	40	19	37	24	38	16	23	23	23	20	30
09:00	*	*	7	22	9	20	14	23	13	21	10	22	11	19	11	21
10:00	*	*	5	7	7	21	8	17	10	8	13	11	2	8	8	12
11:00	*	*	0	5	2	4	5	7	2	17	3	5	2	7	2	8
Lane	0	0	218	349	712	743	719	720	683	801	475	572	605	531	636	674
Day	0		567		1455		1439		1484		1047		1136		1310	
AM Peak	-	-	-	-	05:00	09:00	06:00	11:00	06:00	11:00	09:00	11:00	10:00	11:00	06:00	11:00
Vol.	-	-	-	-	64	46	75	39	68	42	42	49	52	47	44	44
PM Peak	-	-	15:00	16:00	15:00	17:00	15:00	16:00	16:00	15:00	17:00	12:00	14:00	12:00	15:00	16:00
Vol.	-	-	53	92	64	90	52	93	50	100	39	53	62	66	49	76

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street

Site Code:
Station ID:

Latitude: 0' 0.0000 South

Start Time	15-Aug-22 SB	15-Aug-22 NB	Tue SB	Tue NB	Wed SB	Wed NB	Thu SB	Thu NB	Fri SB	Fri NB	Sat SB	Sat NB	Sun SB	Sun NB	Week Average SB	Week Average NB
12:00 AM	1	1	0	0	0	4	*	*	*	*	*	*	*	*	0	2
01:00	0	0	0	1	0	1	*	*	*	*	*	*	*	*	0	1
02:00	1	0	0	0	1	1	*	*	*	*	*	*	*	*	1	0
03:00	1	0	2	0	1	0	*	*	*	*	*	*	*	*	1	0
04:00	13	0	9	0	10	0	*	*	*	*	*	*	*	*	11	0
05:00	55	12	57	3	48	3	*	*	*	*	*	*	*	*	53	6
06:00	**84**	19	**71**	21	69	15	*	*	*	*	*	*	*	*	**75**	18
07:00	72	17	71	21	**72**	11	*	*	*	*	*	*	*	*	72	16
08:00	48	33	59	34	45	40	*	*	*	*	*	*	*	*	51	36
09:00	21	39	43	**45**	44	**50**	*	*	*	*	*	*	*	*	36	**45**
10:00	27	40	44	37	37	46	*	*	*	*	*	*	*	*	36	41
11:00	31	**49**	38	38	37	41	*	*	*	*	*	*	*	*	35	43
12:00 PM	44	31	39	36	31	**39**	*	*	*	*	*	*	*	*	38	35
01:00	37	30	32	40	**38**	33	*	*	*	*	*	*	*	*	36	34
02:00	30	36	**42**	44	*	*	*	*	*	*	*	*	*	*	36	40
03:00	**51**	66	40	62	*	*	*	*	*	*	*	*	*	*	**46**	64
04:00	42	88	37	**118**	*	*	*	*	*	*	*	*	*	*	40	**103**
05:00	43	**92**	39	79	*	*	*	*	*	*	*	*	*	*	41	86
06:00	36	42	38	76	*	*	*	*	*	*	*	*	*	*	37	59
07:00	17	30	24	36	*	*	*	*	*	*	*	*	*	*	20	33
08:00	9	23	22	36	*	*	*	*	*	*	*	*	*	*	16	30
09:00	10	14	13	24	*	*	*	*	*	*	*	*	*	*	12	19
10:00	2	6	4	6	*	*	*	*	*	*	*	*	*	*	3	6
11:00	1	4	2	9	*	*	*	*	*	*	*	*	*	*	2	6
Lane	676	672	726	766	433	284	0	0	0	0	0	0	0	0	698	723
Day	1348		1492		717		0		0		0		0		1421	
AM Peak	06:00	11:00	06:00	09:00	07:00	09:00	-	-	-	-	-	-	-	-	06:00	09:00
Vol.	84	49	71	45	72	50	-	-	-	-	-	-	-	-	75	45
PM Peak	15:00	17:00	14:00	16:00	13:00	12:00	-	-	-	-	-	-	-	-	15:00	16:00
Vol.	51	92	42	118	38	39	-	-	-	-	-	-	-	-	46	103

Comb. Total	1348	2059	2172	1439	1484	1047	1136	2731
ADT	ADT 1,346	AADT 1,346						

County of Renfrew
Public Works and Engineering

Appendix VII

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-09-22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	0	0	0	1	0	2	0	16	36	25	25	5	2	1	113
16:00	2	0	0	0	1	0	11	11	32	37	26	14	4	3	141
17:00	0	0	0	0	0	1	0	8	33	36	35	9	2	1	125
18:00	0	0	0	0	0	0	3	4	18	11	10	11	2	1	60
19:00	0	0	0	0	0	1	2	4	12	10	8	4	1	3	45
20:00	0	0	0	0	1	1	2	6	9	7	3	5	3	0	37
21:00	0	0	0	0	0	1	1	5	7	2	9	2	1	1	29
22:00	0	0	0	0	1	1	0	0	3	5	2	0	0	0	12
23:00	0	0	0	0	0	0	0	0	0	2	2	1	0	0	5
Total	2	0	0	1	3	7	19	54	150	135	120	51	15	10	567

Daily

15th Percentile :	79 KPH
50th Percentile :	90 KPH
85th Percentile :	102 KPH
95th Percentile :	109 KPH
Mean Speed(Average) :	91 KPH
15 KPH Pace Speed :	81-95 KPH
Number in Pace :	268
Percent in Pace :	47.3%
Number of Vehicles > 80 KPH :	481
Percent of Vehicles > 80 KPH :	84.8%

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-10-22	0	0	0	0	0	0	1	1	1	1	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	1	2	4	2	0	0	9
05:00	0	0	0	0	1	0	0	4	10	15	23	11	3	2	69
06:00	0	0	0	0	1	0	2	0	15	20	16	12	3	3	72
07:00	0	0	0	0	0	0	0	8	23	16	19	9	3	6	84
08:00	0	0	0	0	0	0	14	6	20	23	15	8	4	2	92
09:00	0	0	0	0	0	1	2	16	27	18	21	6	2	0	93
10:00	0	0	3	0	0	1	2	9	25	15	16	3	0	1	75
11:00	1	0	0	0	0	0	6	13	27	19	13	4	0	1	84
12 PM	0	0	0	0	1	0	3	11	18	16	20	9	3	0	81
13:00	0	0	0	0	0	1	5	13	17	23	8	1	1	0	69
14:00	0	0	0	0	0	0	2	8	22	21	15	4	2	1	75
15:00	0	0	1	0	0	1	2	16	32	25	33	8	9	1	128
16:00	0	0	1	0	0	0	4	9	43	28	37	9	2	0	133
17:00	1	1	4	0	0	0	4	11	30	31	35	14	6	3	140
18:00	0	0	0	1	1	4	4	5	6	14	16	9	4	2	66
19:00	0	0	0	0	0	1	1	6	10	19	9	3	4	1	54
20:00	0	0	0	1	0	3	5	9	13	16	10	3	1	0	61
21:00	0	0	0	0	0	0	1	7	6	3	7	5	0	0	29
22:00	4	0	0	0	0	0	3	5	2	5	6	1	1	1	28
23:00	0	0	0	0	0	0	0	0	2	2	1	1	0	0	6
Total	6	1	9	2	4	12	61	157	352	332	325	122	48	24	1455

Daily

15th Percentile :	78 KPH
50th Percentile :	90 KPH
85th Percentile :	102 KPH
95th Percentile :	110 KPH
Mean Speed(Average) :	91 KPH
15 KPH Pace Speed :	81-95 KPH
Number in Pace :	642
Percent in Pace :	44.1%
Number of Vehicles > 80 KPH :	1203
Percent of Vehicles > 80 KPH :	82.7%

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-11-22	0	0	0	0	0	0	0	0	0	1	1	0	1	0	3
01:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2
04:00	0	0	0	0	0	0	0	2	1	4	2	0	1	0	10
05:00	0	0	0	0	0	0	1	5	14	8	14	15	3	0	60
06:00	0	0	0	0	0	0	0	2	11	23	34	9	7	1	87
07:00	0	0	0	0	0	2	2	17	12	22	26	8	1	3	93
08:00	0	0	0	0	0	0	5	13	19	21	20	11	5	1	95
09:00	0	0	1	0	0	0	5	9	20	13	21	6	1	1	77
10:00	0	0	0	0	0	1	2	8	28	10	16	6	1	1	73
11:00	0	0	0	0	0	0	5	10	22	20	17	4	0	1	79
12 PM	1	0	0	0	0	2	3	10	17	10	14	6	3	2	68
13:00	0	0	0	0	0	1	3	13	20	16	18	2	3	1	77
14:00	0	0	0	1	0	3	7	8	17	16	17	3	2	0	74
15:00	0	0	0	0	6	0	7	14	30	20	37	14	3	2	133
16:00	0	0	0	0	0	0	0	14	22	30	51	13	1	1	132
17:00	0	0	0	0	0	1	2	11	21	37	27	8	6	1	114
18:00	0	0	0	0	0	0	3	5	11	14	21	16	4	2	76
19:00	0	0	0	0	0	1	0	7	15	11	12	6	2	1	55
20:00	0	0	0	0	0	2	0	6	12	17	9	6	2	2	56
21:00	0	0	0	0	0	2	0	5	15	5	8	0	1	1	37
22:00	0	0	0	0	2	0	4	4	5	5	4	1	0	0	25
23:00	0	0	0	0	0	0	2	2	3	2	2	0	0	1	12
Total	1	0	1	1	8	15	51	165	317	305	371	135	47	22	1439

Daily

15th Percentile :	78 KPH
50th Percentile :	91 KPH
85th Percentile :	103 KPH
95th Percentile :	110 KPH
Mean Speed(Average) :	92 KPH
15 KPH Pace Speed :	90-104 KPH
Number in Pace :	638
Percent in Pace :	44.3%
Number of Vehicles > 80 KPH :	1197
Percent of Vehicles > 80 KPH :	83.2%

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-12-22	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
01:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	3	0	1	0	0	0	0	4
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	1	1	7	0	2	0	11
05:00	0	0	0	0	0	1	2	0	9	5	10	8	2	0	37
06:00	0	0	0	0	0	0	2	5	9	22	21	11	9	4	83
07:00	0	0	1	0	0	0	1	7	17	12	20	12	2	1	73
08:00	0	0	0	0	0	4	5	13	25	12	12	7	2	1	81
09:00	0	0	0	0	0	0	7	13	20	19	19	4	0	0	82
10:00	0	0	0	0	2	2	3	10	23	13	20	6	0	0	79
11:00	0	0	0	0	1	0	1	11	18	20	14	7	1	0	73
12 PM	0	0	0	0	0	0	0	13	26	21	12	8	3	0	83
13:00	0	0	0	0	1	0	1	12	21	26	16	7	5	0	89
14:00	0	0	0	1	4	0	3	15	21	30	24	9	2	0	109
15:00	0	0	0	0	0	0	5	9	36	34	43	12	3	2	144
16:00	0	0	0	0	0	1	6	18	37	35	28	16	4	3	148
17:00	0	0	0	0	0	2	1	14	30	20	26	18	4	1	116
18:00	1	1	0	0	0	2	3	8	29	15	14	10	1	2	86
19:00	1	0	0	0	0	1	0	6	10	13	12	6	0	0	49
20:00	0	0	0	0	0	0	3	14	20	12	8	2	2	1	62
21:00	0	0	0	0	0	2	1	7	12	5	3	2	0	2	34
22:00	0	0	0	0	0	0	1	4	7	3	2	0	1	0	18
23:00	0	0	0	0	0	0	3	5	6	4	1	0	0	0	19
Total	2	1	1	1	8	15	49	187	380	323	312	145	43	17	1484

Daily

15th Percentile :	78 KPH
50th Percentile :	90 KPH
85th Percentile :	103 KPH
95th Percentile :	110 KPH
Mean Speed(Average) :	91 KPH
15 KPH Pace Speed :	81-95 KPH
Number in Pace :	663
Percent in Pace :	44.7%
Number of Vehicles > 80 KPH :	1220
Percent of Vehicles > 80 KPH :	82.2%

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-13-22	0	0	0	0	0	1	0	1	4	3	0	2	0	0	11
01:00	0	0	0	0	0	0	0	0	2	1	1	0	0	0	4
02:00	0	0	0	0	0	0	0	1	0	0	1	1	0	0	3
03:00	0	0	0	0	0	0	0	1	0	0	0	0	2	0	3
04:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	2	2	0	1	1	0	6
06:00	0	0	0	0	0	0	0	5	7	3	6	3	1	0	25
07:00	0	0	0	0	0	0	3	4	8	8	11	7	2	0	43
08:00	0	0	0	0	2	0	3	8	8	10	14	9	0	0	54
09:00	0	0	0	0	0	1	2	8	20	17	17	8	0	0	73
10:00	0	0	0	0	1	0	3	13	18	9	15	9	3	0	71
11:00	0	0	1	0	3	3	2	12	31	13	12	6	5	1	89
12 PM	0	1	0	0	0	1	4	14	14	17	14	10	2	0	77
13:00	0	1	1	0	0	3	0	11	20	16	15	5	4	0	76
14:00	0	1	0	0	1	3	1	14	22	17	12	6	4	0	81
15:00	0	0	0	0	0	3	2	8	19	11	16	15	1	0	75
16:00	0	0	0	0	0	0	0	7	11	16	25	6	4	0	69
17:00	0	1	0	0	0	0	3	6	25	18	14	3	1	0	71
18:00	1	0	2	0	0	3	1	5	16	9	11	9	5	1	63
19:00	0	1	0	0	0	0	2	7	17	7	9	4	1	1	49
20:00	0	0	0	0	1	0	2	11	9	8	6	0	1	1	39
21:00	0	0	0	0	0	1	2	7	7	8	3	2	2	0	32
22:00	0	0	0	0	0	1	1	1	9	6	4	0	2	0	24
23:00	0	0	0	0	0	0	0	3	2	1	2	0	0	0	8
Total	1	5	4	0	8	20	31	148	271	200	208	106	41	4	1047

Daily

15th Percentile :	76 KPH
50th Percentile :	89 KPH
85th Percentile :	103 KPH
95th Percentile :	111 KPH
Mean Speed(Average) :	90 KPH
15 KPH Pace Speed :	81-95 KPH
Number in Pace :	446
Percent in Pace :	42.6%
Number of Vehicles > 80 KPH :	830
Percent of Vehicles > 80 KPH :	79.3%

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-14-22	0	0	0	0	0	0	2	1	2	1	2	2	1	0	11
01:00	0	0	0	0	0	0	1	1	0	0	1	2	0	0	5
02:00	0	0	0	0	0	0	0	0	2	1	1	0	0	0	4
03:00	0	0	0	0	0	1	0	0	0	1	1	0	0	0	3
04:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
05:00	0	0	0	0	0	1	0	0	1	0	1	0	0	0	3
06:00	0	0	0	0	0	0	0	2	3	6	1	0	1	0	13
07:00	0	0	0	0	0	0	0	2	6	5	8	2	0	0	23
08:00	0	0	0	0	0	0	3	7	9	8	8	2	1	0	38
09:00	0	2	0	0	0	0	1	7	14	13	13	3	2	1	56
10:00	0	0	1	0	0	1	4	10	19	23	14	12	2	0	86
11:00	1	0	0	0	1	1	7	14	18	30	14	5	2	1	94
12 PM	1	0	1	0	0	1	0	19	39	16	24	8	1	0	110
13:00	0	7	1	0	1	2	8	10	20	18	15	13	3	1	99
14:00	0	0	0	1	0	1	1	13	21	41	21	8	6	0	113
15:00	0	1	0	1	0	1	5	7	32	17	20	5	3	0	92
16:00	0	1	0	0	0	2	2	9	16	27	24	5	4	0	90
17:00	0	0	1	0	0	0	5	5	12	14	13	3	3	0	56
18:00	0	0	0	0	0	0	2	2	15	25	14	13	3	0	74
19:00	0	0	0	0	0	1	0	14	16	18	14	4	2	1	70
20:00	0	0	0	0	0	0	5	9	13	9	5	5	0	0	46
21:00	0	0	0	0	0	1	5	4	8	4	5	3	0	0	30
22:00	0	0	0	0	0	0	0	2	1	4	2	1	0	0	10
23:00	0	0	0	0	0	0	1	0	2	3	2	1	0	0	9
Total	2	11	4	2	2	13	52	138	270	284	223	97	34	4	1136

Daily

15th Percentile :	76 KPH
50th Percentile :	90 KPH
85th Percentile :	102 KPH
95th Percentile :	110 KPH
Mean Speed(Average) :	90 KPH
15 KPH Pace Speed :	82-96 KPH
Number in Pace :	520
Percent in Pace :	45.8%
Number of Vehicles > 80 KPH :	912
Percent of Vehicles > 80 KPH :	80.3%

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-15-22	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	1	4	4	3	0	1	13
05:00	0	0	0	0	0	0	1	8	8	10	28	7	5	0	67
06:00	0	0	0	0	0	1	0	10	18	23	38	9	1	3	103
07:00	0	0	0	0	0	0	2	5	16	23	24	12	5	2	89
08:00	1	1	0	0	0	1	5	7	22	16	17	7	3	1	81
09:00	3	0	0	0	1	1	3	15	14	12	8	1	1	1	60
10:00	0	0	0	0	0	1	7	15	17	14	9	4	0	0	67
11:00	0	1	0	0	0	2	3	14	28	16	12	4	0	0	80
12 PM	0	0	1	0	0	1	4	13	21	16	13	4	2	0	75
13:00	1	0	1	0	0	0	2	10	13	22	11	5	2	0	67
14:00	0	1	1	0	0	3	6	14	14	13	10	2	1	1	66
15:00	0	0	0	1	2	1	7	23	34	23	22	2	2	0	117
16:00	0	0	0	0	0	0	3	15	34	31	29	17	1	0	130
17:00	0	0	0	1	0	2	1	8	32	42	34	13	1	1	135
18:00	0	0	0	0	0	0	3	14	20	16	19	2	4	0	78
19:00	0	0	0	0	0	1	4	5	12	7	11	2	5	0	47
20:00	0	0	0	0	0	2	1	7	9	3	7	1	2	0	32
21:00	0	0	0	0	0	0	0	3	8	6	5	2	0	0	24
22:00	0	0	0	0	0	1	1	2	1	2	1	0	0	0	8
23:00	0	0	0	0	0	0	0	1	1	1	1	0	1	0	5
Total	5	3	3	2	3	17	53	189	324	301	304	98	36	10	1348

Daily

15th Percentile :	76 KPH
50th Percentile :	89 KPH
85th Percentile :	102 KPH
95th Percentile :	109 KPH
Mean Speed(Average) :	90 KPH
15 KPH Pace Speed :	81-95 KPH
Number in Pace :	587
Percent in Pace :	43.5%
Number of Vehicles > 80 KPH :	1073
Percent of Vehicles > 80 KPH :	79.6%

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-16-22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	2	1	4	1	1	0	9
05:00	0	0	0	0	0	0	1	3	5	9	23	14	4	1	60
06:00	0	0	0	0	0	1	4	3	13	20	29	16	2	4	92
07:00	0	0	0	0	0	0	3	6	19	25	23	11	2	3	92
08:00	0	0	0	0	0	0	4	21	20	20	16	10	2	0	93
09:00	1	0	0	0	4	5	6	9	18	24	15	3	3	0	88
10:00	0	1	1	0	2	1	1	17	25	6	19	6	2	0	81
11:00	0	2	2	4	1	2	11	12	22	7	7	5	1	0	76
12 PM	0	0	0	0	1	3	5	6	19	18	12	6	4	1	75
13:00	0	0	1	0	1	0	5	14	17	14	14	3	3	0	72
14:00	0	0	0	0	0	4	14	11	16	14	17	7	1	2	86
15:00	0	0	2	0	0	3	1	14	21	23	25	9	3	1	102
16:00	0	0	1	0	0	1	5	13	41	51	26	15	2	0	155
17:00	0	0	0	0	0	2	4	11	28	24	30	17	2	0	118
18:00	0	0	2	0	0	1	5	17	28	25	20	11	4	1	114
19:00	0	0	0	0	0	1	11	11	8	11	11	2	2	3	60
20:00	0	0	0	0	1	0	1	10	21	13	8	2	1	1	58
21:00	0	0	0	2	0	0	5	4	9	11	2	3	1	0	37
22:00	0	0	0	0	0	0	1	2	1	3	1	2	0	0	10
23:00	0	0	0	0	0	0	4	2	1	0	2	2	0	0	11
Total	1	3	9	6	10	24	91	186	335	321	304	145	40	17	1492

Daily

15th Percentile :	75 KPH
50th Percentile :	89 KPH
85th Percentile :	103 KPH
95th Percentile :	110 KPH
Mean Speed(Average) :	90 KPH
15 KPH Pace Speed :	81-95 KPH
Number in Pace :	616
Percent in Pace :	41.3%
Number of Vehicles > 80 KPH :	1162
Percent of Vehicles > 80 KPH :	77.9%

County of Renfrew
Public Works and Engineering

Campbell Drive - 1.5km south of Usborne Street
Speed Study

Site Code:
Station ID:

Latitude: 0' 0.0000 South

SB, NB

Start Time	1 24	25 32	33 40	41 48	49 56	57 64	65 72	73 80	81 88	89 96	97 104	105 112	113 120	121 9999	Total
08-17-22	0	0	0	0	1	0	0	0	1	0	1	0	0	1	4
01:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	1	2	3	3	0	1	0	10
05:00	0	0	0	0	0	0	2	4	4	11	13	10	5	2	51
06:00	1	0	0	0	0	0	3	1	19	16	25	8	10	1	84
07:00	0	0	0	0	0	0	1	6	13	25	22	8	4	4	83
08:00	0	0	0	0	0	0	0	17	24	16	16	6	4	2	85
09:00	0	0	0	0	0	3	3	13	36	19	15	3	1	1	94
10:00	0	0	2	0	0	1	4	15	20	17	17	5	1	1	83
11:00	0	0	0	0	1	1	4	11	17	21	15	5	1	2	78
12 PM	0	0	0	0	0	2	5	8	23	11	11	7	3	0	70
13:00	0	0	1	0	0	1	5	10	20	19	13	1	1	0	71
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	0	3	0	2	8	27	86	181	160	151	53	31	14	717

Daily

15th Percentile :	77 KPH
50th Percentile :	90 KPH
85th Percentile :	102 KPH
95th Percentile :	111 KPH
Mean Speed(Average) :	91 KPH
15 KPH Pace Speed :	81-95 KPH
Number in Pace :	321
Percent in Pace :	44.8%
Number of Vehicles > 80 KPH :	590
Percent of Vehicles > 80 KPH :	82.3%

Grand Total	21	24	34	15	48	131	434	1310	2580	2361	2318	952	335	122	10685

Overall

15th Percentile :	77 KPH
50th Percentile :	90 KPH
85th Percentile :	102 KPH
95th Percentile :	110 KPH
Mean Speed(Average) :	90 KPH
15 KPH Pace Speed :	81-95 KPH
Number in Pace :	4646
Percent in Pace :	43.5%
Number of Vehicles > 80 KPH :	8668
Percent of Vehicles > 80 KPH :	81.1%

1.9 Road Rationalization

1.9.1 THE CONCEPT OF ROAD RATIONALIZATION

When first established the “Kings Highway System” provided a major inter-centre connector. A County or regional road system provide this same service on a reduced scale, connecting smaller centres of population and providing a “farm to market” road link. The local road acted as the final link in the system providing access to the abutting properties. These roles have changed very little over time. However, in many areas of the province significant changes in settlement patterns, population and employment have left some areas with designation of roads that is no longer appropriate. The Province of Ontario have taken the lead in the re-designation of their road system and has began to shift responsibility for some roads to the local, county and regional levels.

Road service providers are requested to demonstrate accountability for road maintenance services. The efficient and effective delivery of road services is a priority of municipal customers (the road user and taxpayer). One step in demonstrating accountability is in rationalizing road jurisdiction between a County (Region) and local municipalities. This rationalization will ensure that local roads serve primarily a local function and County (Regional) roads serve a through traffic function. Another benefit to the transferring of roads is a County (Regional) road that is a low priority to the upper tier, once transferred, may become a high priority for the local municipality and see significant improvements over time. Likewise a high volume local road carrying primarily through traffic may receive higher levels of service than the local municipality was able to provide.

The road rationalizing method as shown in this report permits a review of the road system within an county (region). The outcome of the review is a determination of the appropriate jurisdiction of a road or road section.

1.9.2 BY-LAWS

Each County or Regional municipality has been granted the power under the Public Transportation and Highway Improvement Act or their respective Regional Act to establish, maintain, add or remove designated roads from or to their county or regional road system.

The Public Transportation and Highway Improvement Act (PTHIA) provides for the establishment of a county road system. The county road systems were established in the early years of this century by by-laws passed by each council. The roads which comprise a county road system established under the PTHIA are county roads whether they be in a town, a village or a township. When the task of determining what alterations have been made to the physical system or when it is desirable to review municipal service delivery, a new system can be designated by a new establishing by-law. In effect, the slate is wiped clean and the road system starts afresh.

1.9.3 PRINCIPLES OF ROAD RATIONALIZATION

- Upper Tier roads, which are primarily transportation corridors, should provide continuous roadway service throughout the county or region.

- Upper Tier roads should be capable of being upgraded to a reasonable standard consistent with the service to be provided.

- Upper Tier roads should be along the shortest practical route, along existing roads and streets.

1.9.4 GOAL OF A ROAD RATIONALIZATION STUDY

- To develop a County (Regional) Road System that reflects the realities of today and beyond.

1.9.5 TERMS OF REFERENCE

- Conduct a road rationalization study, evaluating criteria prepared by the Ministry of Transportation in their document “Upper Tier Road Classification Criteria”. Modifying the criteria based on information as shown in this document.

- This review will focus on the efficient and effective delivery of all road services within the county or region.

- Transfer roads to the local municipalities which serve primarily a local function.

- Transfer roads to the County (Region) which primarily serve a through traffic (regional) function.

- Consider road condition and compensation throughout the discussion of road transfers.

- Involve the local municipalities in the decision making process by encouraging feedback and comments.

1.9.6 METHODOLOGY

The review of every road section within the county and local municipalities will be time consuming and probably unnecessary. By each local municipality identifying roads that they believe serve a through traffic function will save a time consuming road by road analysis.

- Review the criteria as shown in figure 1.9.7 and modify to meet specific municipal requirements.

- Apply the criteria to all existing county (regional) roads and roads identified by the local municipalities as candidates forupper tier road classification.

- Weight the criteria as shown in this document.

- Determine “cut-off” weight for inclusion of individual road sections in the County (Regional) system.

- Develop a County (Regional) road system.

- Determine the needs to be addressed (i.e. surface condition) prior to the transfer of roads to the local municipality or the acceptance of roads by the county (region)

- Determine impact on local municipalities as well as county or region.

- Present findings to council.

1.9.7 CRITERIA AND THE WEIGHTS APPLIED

Criterion 1 *Urban Center Connector*

Connect Urban Centres to each other or to a Kings Highway unless such a service is now provided by a Kings Highway.

Weighting Applied = 3

Criterion 2 *Kings Highway/Upper Tier Connector*

Connect major commercial and industrial areas, universities, hospitals, international border crossings and provincial boundaries, etc. to a Kings Highway or Upper Tier road.

Weighting Applied = 2

Criterion 3 *Heavy Industry Service*

Provide service within 4 km. of consistent major attractors or generators of heavy vehicles.

Weighting Applied = 2

Criterion 4 *Barrier Service*

Provide service parallel to and across major barriers to free traffic movement such as freeways, watercourse or congested areas.

Weighting Applied = 1

Criterion 5 *Resort Criterion*

Provide service within 4 km. of a major resort and/or recreational areas

Weighting Applied = 1

Criterion 6 *Urban Cell Service*

Provide service in urban areas within the cells formed by the Kings Highways and the streets selected by the above criteria, provided that the traffic demand existing on the street is considered predominantly for through traffic.

Weighting Applied = 0

Criterion 7 *Urb*an *Arterial Extension*

Provide service on those roads which are extensions of urban arterial streets, from the urban limits to the first intersection where the AADT is below 700 vehicles per day, then connect to an upper tier road or a Kings Highway by the shortest route.

Weighting Applied = 3

Criterion 8 *Rural Cell Service*

Provide service in rural areas within the cells formed by the Kings Highways and the roads selected by the above criteria.

Weighting Applied = 0

Criterion 9 *Traffic Speed*

Provide service on roads where the speed limit is 80km/hr.

Weighting Applied = 1

Criterion 10 *Road Surface*

Provide service on roads with an asphalt surface.

Weighting Applied = 0.5

Criterion 11 *Traffic Volume*

Provide service on roads with current traffic volumes greater than 1000 vehicles per day.

Weighting Applied = 0.5

Criterion 12 *Road Right of Way*

Provide service on roads with at least a 66 foot wide right of way.

Weighting Applied = 1

1.9.8 APPLICATION GUIDELINES

Criterion 1 (Urban Centre Connector) and Criterion 7 (Urban Arterial Extension) are considered the most important criteria, as upper tier roads should serve as inter-municipal corridors to connect the small urban centres within the county or region. In order to apply criterion 1 a determination of what constitutes an urban centre is required.

Criterion 1 *Urban Centre Connector*

This criterion is intended to identify roads which provide service to and from centres having commercial and possibly industrial development.

Urban centres are areas of concentrated development, not “ribbon” development.

The criterion is not intended to be applied to residential subdivisions which are developing in rural areas. When the residential development grows to a sufficient size, upper tier road service may be considered through the application of all of the criteria.

Criterion 2 *Kings Highway/Upper Tier Road Connector*

The intent of this criterion is to extend the Kings Highway or upper tier road to connect to the facilities mentioned and not to provide for lateral connections between highways/upper tier roads.

Major institutional/commercial/industrial complexes are areas generating more than 1000 vehicle trips per day.

Criterion 3 *Heavy Industry Service*

It is not intended that it be an upper tier responsibility to provide service to the entrance of every attractor or generator of heavy vehicles in an area. Rather, it is intended that upper tier service be provided close to the

industry and that the distribution within the area of the industry be a lower tier responsibility.

"Close to" means within a distance of approximately 4.0km.

"Consistent major attractor or generator", in the case of gravel pits and quarries, is defined as approximately 9 months or more of operation per year.

Landfill sites under the jurisdiction of, or serving the upper tier municipality, may also be considered as attractors of heavy vehicles and may be serviced by upper tier roads.

Criterion 4 *Barrier Service*

The intent of this criterion is to alleviate traffic on local roads by providing service parallel to or across barriers to traffic movement where upper tier service is justified. The barrier must be an obstacle to traffic wishing to cross it and it must be feasible to cross (i.e. freeways by interchanges and rivers by bridges)

Service is provided "parallel to" only if there is no other upper tier or provincial road providing that service within a reasonable distance and only along roadways which are used to reach barrier crossings.

Criterion 5 *Resort Criterion*

The intent of this criterion is to provide upper tier service close to resort/recreational areas or to a lower tier road system that distributes the traffic.

"Close to" means within a distance of approximately 4.0km from the edge of the resort development.

A major resort/recreational area is an area generating a minimum of 700 vehicle trips per day during normal season of operation.

Criterion 6 *Urban Cell Service*

The intent of this criterion is to identify roads in the cell under consideration at the spacing noted. The roads so identified must function predominately for through movement of traffic.

Roads which function as minor collectors for trips with origin and destination within the cell should be rejected.

The cell population density considered in identifying the appropriate spacing should be either the daytime or night time population whichever is greater.

Population Density	Additional service required when spacing of roads is greater than
less than 40 persons/hectare	2000m
between 40 and 125 persons/ha	1200m

Criterion 6 and 8 are not included in the original application of criteria but could be used as a rationale for including additional roads or road sections to complete the road network. The reasoning behind excluding this criterion in the original application is due to the good condition of most local roads and the fact the majority of population has access to a motor vehicle or alternate transportation services (i.e. transit).

Criterion 7 *Urban Arterial Extension*

The intent of this criterion is to provide for the extension of urban arterial streets into the rural areas to connect with an upper tier road or a Kings Highway. Traffic counts should be taken on both sides of the intersection with the upper tier and the extension continued through the

intersection, only if both AADT's equal or exceed 700 vehicles per day.

Criterion 8 *Rural Cell Service*

The intent of this criterion is to provide upper tier service within the cell formed by the application of criteria 1 - 7 inclusive at spacing related to population density within the cells.

Upper Tier roads or provincial highways in the subject upper tier or in adjacent upper tiers act as rural cell boundaries.

Population Density	Additional service required when spacing of roads is greater than
less than 1 person/km^2	no additional service
1 person/km^2	25 km
between 1 and 4 persons/km^2	20 km
between 4 and 8 persons/km^2	15 km
between 8 and 16 persons/km^2	10 km
greater than 16 persons/km^2	6 km

Criterion 9 *Traffic Speeds*

This criterion is intended to identify those roads which have a speed limit of 80 km/h. This is deemed to be a desirable speed limit allowing roads which predominately serve as inter-municipal links in a road network to do so efficiently.

Criterion 10 *Road Surfaces*

This criterion is intended to identify those roads with an asphalt surface. These roads were deemed to be more appropriate to serve as upper tier roads, as this surface material would be more durable to withstand the greater traffic volumes, heavier vehicles and higher speeds as anticipated on upper tier roads.

Criterion 11 *Traffic Volumes*

This criterion was intended to identify roads with current traffic volumes greater than 1000 vehicles per day.

Criterion 12 *Road Right of Way*

The intent of this criterion is to identify roads with a right of way width of 66 feet. It is appropriate to be considered for an upper tier road designation that the road have at least a standard right of way.

Apply each of the criteria in section 1.9.7 to the existing upper tier road system and to local roads identified by each municipality as a provider of through traffic service. Criterion 6 and 8 are not included in the original application of criteria but could be used as a rationale for including additional roads or road sections to complete the road network.

1.9.9 CUT-OFF WEIGHT

After the criteria has been applied to each road being analyzed it is possible to determine how much weight each road has accumulated. By setting a minimum weighting of six points, a cut-off threshold is established for including a road in the upper tier system.

This would mean that to qualify for upper tier designation a road must meet either the criteria for Urban Centre Connector or the criteria for Urban Arterial Extension worth 3 points, plus all four criteria for Traffic Speed, Road Surface, Traffic Volume and Road Right-of-Way worth a combined total of 3 points, or another combination of criteria to have a total weight of 6. This becomes the yardstick to be used for recommending the redesignation of roads.

Criteria	Weight	YES/NO	Score	Rational
Criterion 1 - Urban Centre Connector	3	NO	0	This would be an Arterial Connector between County Roads 45 & 3
Criterion 2 - King's Highway/Upper Teir Connector	2	YES	2	This would be an Arterial Connector between County Roads 45 & 3
Criterion 3 - Heavy Industry Service	2	YES	2	Pit Traffic and future industrial park expansion
Criterion 4 - Barrier Service	1	NO	0	Very liitle improvement in traffic flow
Criterion 5 - Resort Criterion	1	NO	1	No resort involved
Criterion 6 - Urban Cell Service	0	NO	0	This would be a Connector between County Roads
Criterion 7 - Urban Arterial Extension	3	YES	3	Arterial Connection
Criterion 8 - Rural Cell Service	0	YES	0	Currently being used for residential access
Criterion 9 - Traffic Speed	1	YES	1	Speed limit varies throughout the corridor
Criterion 10 - Road Surface	0.5	YES	0.5	a varried of hard surface treatments are currently being used.
Criterion 11 - Traffic Volume	0.5	YES	0.5	>1000 ADDT
Criterion 12 - Road Right-of-Way	1	YES	1	Varries throughout corridor.
Totals	**15**		**11**	

* To qualify for upper tier designation a road must meet either the criteria for urban centre connector or the criteria for urban arterial extension worth 3 points, plus all four criteria for traffic speed, road surface, traffic volume and road right- of-way worth a combined total of 3 points, or another combination of criteria to have a total weight of 6. This becomes the yardstick to be used for recommending the redesignation of roads.

Criterion 1 - Urban Centre Connector	3	NO	0	This would be an Arterial Connector between County Roads 45 & 3
Criterion 7 - Urban Arterial Extension	3	YES	3	Arterial Connection
Criterion 9 - Traffic Speed	1	YES	1	Speed limit varies throughout the corridor
Criterion 10 - Road Surface	0.5	YES	0.5	a varried of hard surface treatments are currently being used.
Criterion 11 - Traffic Volume	0.5	YES	0.5	>1000 ADDT
Criterion 12 - Road Right-of-Way	1	YES	1	Varries throughout corridor.
Totals			**6**	

COUNTY OF RENFREW

BY-LAW NUMBER

A BY-LAW TO ESTABLISH POLICY PW-18 DECORATIVE CROSSWALKS ON COUNTY ROADS FOR THE MUNICIPAL ROAD SYSTEM WITHIN THE JURISDICTION OF THE CORPORATION OF THE COUNTY OF RENFREW

WHEREAS Section 11(3) the Municipal Act, S.O. 2001, as amended, authorizes Council to pass by-laws regarding highways under the jurisdiction of the Corporation;

AND WHEREAS the Corporation desires to implement a Policy regarding the Renaming of County Roads within the jurisdiction of the Corporation.

NOW THEREFORE the Council of the Corporation of the County of Renfrew hereby enacts as follows:

1. THAT Public Works and Engineering Department Policy PW-18 Decorative Crosswalks on County Roads, as outlined in Schedule 'I' attached to and made part of this By-law, shall form part of the Public Works and Engineering Department Policies and Procedures of the Corporation of the County of Renfrew.

2. THAT this By-law shall not be interpreted to contradict or violate any statute or regulation of the Province of Ontario.

3. THAT this By-law shall come into force and take effect immediately upon the passing thereof.

READ a first time this 26th day of October, 2022.

READ a second time this 26th day of October, 2022.

READ a third time and finally passed this 26th day of October, 2022.

DEBBIE ROBINSON, WARDEN

CRAIG KELLEY, CLERK

Corporate Policies & Procedures			
SECTION: Operations	**AUTHOR:** Director of Public Works and Engineering		**POLICY #:** PW-18
POLICY: Decorative Crosswalks on County Roads			**APPROVED:**
DATE: October 2022	**REV. DATE:**	**COVERAGE:** Public Works and Engineering Department	**PAGE #:** Page 1 of 8

POLICY STATEMENT

The County of Renfrew, as a road authority, has a need to ensure that pedestrian crosswalks on County Roads are in compliance with the requirements of the Ontario Traffic Manual (OTM) and Highway Traffic Act (HTA) and is consistent with the Department's primary objective of providing and maintaining a safe road system. This Decorative Crosswalk Policy is to support and facilitate the installation of decorative crosswalks in the County of Renfrew, with the endorsement and participation of the local municipality.

BACKGROUND

The County of Renfrew, as the road authority having jurisdiction over County Roads, may make and enforce by-laws and policies pertaining to those items that may be placed within the road allowance.

1. The Municipal Act, S.O. 2001 (s.11), as amended, permits a municipality to pass by-laws pertaining to the public assets of the Municipality for the purpose of exercising its authority under the Act, and to pass by-laws pertaining to highways.

2. The County of Renfrew, as well as local municipalities, has an extensive network of roads that are, travelled at a high rate of speed, often with a high volume of traffic, and must be able to do so safely.

DEFINITIONS

For the purposes of this policy the following definitions shall apply:

"Highway" has the same meaning as provided in the Municipal Act, S.O. 2001, (s.11), as amended, and pertains only to those highways that fall under the control and jurisdiction of the County of Renfrew.

"Road Allowance" means the land occupied by the highway.

"Crosswalks" are an integral component of the transportation network that distinctly indicates safe roadway crossing locations for pedestrians by means of lines or other markings on the surface of the roadway. Vehicle traffic is controlled at crosswalks with stop signs, pedestrian crossovers (PXO's), and partial or full traffic signals. Crosswalks exist at intersections or between intersections (mid-block) on all road classification types throughout the County of Renfrew.

GUIDELINES

The size and colour of crosswalk pavement markings is governed by the Ontario Traffic Manual (OTM). The transverse lines, which are lines that run perpendicular to the roadway and establish the boundaries of the crosswalk, must be white and extend the entire length of the crosswalk. Ladder (also referred to as zebra) markings are suggested for crosswalks where higher visibility is desired. The longitudinal lines (rungs of the ladder) are also normally white; however, the OTM does not specify that they must be white.

The Highway Traffic Act (HTA), specifically Ontario Regulation 402/15: Pedestrian Crossover Signs, requires that PXO's include ladder pavement markings and that the longitudinal lines (rungs) are to the width and spacing as specified. Like OTM, the colour of the rungs are not mandated to be white.

The OTM does state that textured or coloured crosswalks should be "applied to increase the conspicuity of a pedestrian crossings and increase driver's awareness of potential conflicts". It goes on to state that the "materials should be designed to maintain visibility at night".

Decorative crosswalks are typically understood to be crosswalks that include elements (colour, design, imagery, texture and/or material) that are considered aesthetic enhancements above and beyond standard crosswalk treatments.

Crosswalks must always include two white transverse lines, and except for PXO's, the pavement marking treatment in between the transverse lines is not restricted. Therefore, decorative elements (artwork) can be legally applied to the road surface if they are 'framed' by the white transverse lines and the edge of the roadway (normally being curbs). However, it is implied that the design of the treatment would not negatively impact the safety of road users, visually or otherwise.

1.0 REQUESTS

The County of Renfrew may permit the installation of a decorative crosswalk on County Roads, subject to the following terms and conditions:

1. Requests for the installation of the decorative crosswalk shall be submitted in writing to the County by the local proponent in the municipality in which the crosswalk is requested.

2. Upon receipt of a request from the proponent the County will request endorsement from the local municipality for the installation of a decorative crosswalk that has been requested. The County of Renfrew shall meet with staff from the municipality and review the location to determine its suitability for the requested decorative crosswalk.

3. The proponent requesting the decorative crosswalk shall be responsible for one hundred percent (100%) of all costs associated with the initial installation of the decorative crosswalk. The proponent shall be responsible for one hundred percent (100%) of maintenance costs as well as one hundred percent (100%) of the yearly repainting costs. If the proponent does not agree to the terms of the agreement to re-establish, the cost to remove the decorative crosswalk will be assessed and billed to the proponent.

2.0 PERMITTED LOCATIONS

Selecting a location for the installation of decorative crosswalks is important to ensure that they are appropriate, sustainable and safe. The primary consideration in approving a decorative crosswalk location is the safety of pedestrians, cyclists and motorists. Where safety may be negatively impacted, a decorative crosswalk will not be permitted to be installed. Decorative crosswalks should be avoided, without special consideration and permission, across roadways that have high volumes of traffic and/or a high percentage of truck traffic. On arterial roadways, maintenance is cost prohibitive given the amount of tire wear and marks from large trucks.

Decorative crosswalks can be installed on collector and local classified roadways. This includes collector and local roadways that intersect with, or immediately parallel to, major/minor arterial roadways permitting that the crosswalk is located on the secondary leg(s) of the intersection.

It is important that the roadways are in acceptable condition. The installation location surface must be free of potholes, fatigue cracking, loose debris or other similar degraded conditions which would inhibit the installation of surface treatments or perceivably shorten the operational life. Asphalt roadways are preferred, however concrete roads can be considered. Roadways that are constructed using unit pavers, stamped textures or comprised of mixed materials (such as adjoining asphalt and concrete surfaces) should be avoided. Roadways that are scheduled for reconstruction or re-surfacing within five (5) years or less as per the County of Renfrew Asset Management Plan, from the time of decorative crosswalk installation must be avoided so that the treatments are not inadvertently removed earlier than intended or before their operational end-of-life.

3.0 INSTALLATION AND MAINTENANCE

Proper installation and maintenance of decorative crosswalk treatments protects their overall integrity and longevity. Therefore, they must be installed by professional forces that are sufficiently trained and skilled, using appropriate materials and methods, routinely monitored, repaired and maintained.

Artwork must be contained within the two white standard transverse lines of the crosswalk and the edge of the roadway. Treatment must be configured so that a pedestrian's first step is onto asphalt (the bare road surface), achieved by starting the artwork approximately 1.0 metre away from the curb/edge of road. It must not continue or extend onto median islands, curb gutters, curbs, sidewalks or other roadway features.

Artwork must not be applied to utility manhole covers, chamber lids, frames or other similar infrastructure.

Artwork should provide visual contrast and be reflective as per the requirements of the OTM.

Artwork that would be considered ladder (or zebra) markings, must dimensionally conform to the requirements of the HTA and OTM.

Artwork shall respect community standards concerning appropriate subjects and imagery for display in public places. Further, commercial interests such as advertising and copyright protected content is not permitted without special consideration and explicit permission.

Artwork must not be comprised of any elements that road users, particularly pedestrians, would interact with such as hopscotch as an example.

Artwork must not directly or inadvertently mislead the general use or guidance of the crosswalk, especially users whom are visually impaired.

4.0 MATERIALS AND INSTALLATION

Durable skid resistant pavement markings, such as thermoplastic or cold plastic, are preferred to be used for artwork or as specified by the Public Works and Engineering Department. The in-service operational life of durable pavement markings is approximately five (5) years, and is dependent upon roadway surface conditions and traffic volumes.

Artwork must be reflective as per the requirements of the OTM.

Decorative crosswalks must be installed by the County of Renfrew, Public Works and Engineering Department or by contractors as directed by the same.

Artwork designs shall be reasonable, easily reproduced and installed using the noted marking materials and their associated installation methods.

Installation shall be scheduled to occur seasonally in the late spring to early fall or as weather and conditions permit to ensure optimal adherence of materials to roadway surfaces.

5.0 MAINTENANCE AND OPERATIONS

Decorative crosswalks shall be cleaned regularly by the County of Renfrew.

It is recognized that decorative crosswalks do not have an attributed level of service as defined by Ontario Regulation 239/02: Minimum Maintenance Standards for Municipal Highways. However, decorative crosswalks shall generally be inspected by the County of Renfrew, Public Works and Engineering Department, once per calendar year, typically in the late spring;

Maintenance of decorative crosswalks shall be safety focused, but also to maintain the integrity and longevity of the artwork. Maintenance shall be generally conducted on an as-needed basis.

Decorative crosswalks do not have an infinite life and would need to be removed (and replaced if appropriate) when deemed necessary or as required by any terms and/or agreements of their installation.

Requestors of decorative crosswalks shall be responsible for installation costs and maintenance costs.

6.0 ATTRIBUTED COSTS

The cost of installing and maintaining decorative crosswalks will have an impact on capital and existing operational budgets. Because of this, the person or agency requesting decorative crosswalks shall accept all costs.

The cost of installing a decorative crosswalk is dependent upon the intricacy, width of the roadway, coverage of the artwork and location. It is estimated that installation costs would be between $5,000 and $15,000 depending on the length of the crossing.

The ongoing maintenance of the decorative crosswalks shall be borne by the requestor based upon the cost difference between standard crosswalks and decorative crosswalks. Costs would also be dependent upon the same primary cost drivers noted as part of installation (above).

Maintenance costs shall be determined at the time of approval and based upon the design of the decorative crosswalks and perceived attributed maintenance cost pressures.

Installation and maintenance costs which are the requestors will be formalized by establishment of a written agreement.

Installation costs for decorative crosswalks that are not requested by external people or agencies, but rather internal to the County of Renfrew, shall be funded from an appropriate capital budget. Maintenance and operation costs shall be

funded from an appropriate operating budget and annual budgets shall be reasonably adjusted as decorative crosswalks are added or removed.

7.0 APPROVALS

The installation of a new decorative crosswalk on County Roads shall be approved by the appropriate County of Renfrew authority, based on total overall cost of purchased services and materials, as per requirements of County of Renfrew Corporate Policy GA-01 Procurement of Goods and Services.

OPERATIONS DIVISION REPORT

Prepared by: Richard Bolduc, A.Sc.T., Manager of Operations
Prepared for: Operations Committee
October 11, 2022

INFORMATION

1. Summer Operations [Strategic Plan Goal No. 3]

Summer operations are in the process of winding down as preparations are made for the coming winter season. As weather conditions permit, staff will continue with a variety of operations including roadside brushing, shouldering, ditch and culvert cleanouts, small culvert inspections program, sign replacements and routine surface maintenance and repairs.

2. Winter Operations [Strategic Plan Goal No.3]

a) Operational Status and Winter Readiness
Staff are preparing for the coming winter season and the Department is required to be 50% operational by November 1, 2022 and 100% operational by November 15, 2022. Night Patrol shifts are scheduled to commence on November 15, 2022 and will continue until April 1, 2023.

b) Winter Sand
The supply, delivery and stockpiling of winter sand at the various patrol locations is ongoing and it is anticipated that this work will be completed by the end of October.

c) Winter Maintenance Agreements
The following are the current statuses of all winter maintenance agreements:

- Township of Carlow/Mayo for services on a portion of County Road 517 (Dafoe Road) – Term 2022-2023 – Completed.
- Town of Arnprior – Term 2022-2023 – Completed.
- Town of Renfrew – Term 2019-2029 – Completed.
- Town of Deep River – Term 2020-2030 – Completed.

The following multi-year facility rental agreements for County of Renfrew winter operations equipment have been completed and are valid until 2026/2027 winter season:

- Rental agreement with the Township of Bonnechere Valley for the use of one bay of the garage at Foymount during the winter season.
- Rental agreement with the Algonquins of Pikwakanagan for the use of one bay of the garage at Golden Lake during the winter season.

3. **Fleet Management – Annual Vehicle Safety Inspections [Strategic Plan Goal No. 3]**

Work is continuing with the annual vehicle safety inspections within the fleet. The goal is to ensure that all heavy-duty trucks have been inspected and repaired as necessary in order to be available at the start of the coming winter season. The current fleet readiness is at 95%.

In addition to the inspection and repair of those vehicles within the Department of Public Works and Engineering, staff also performs the routine maintenance, inspection, and report of the paramedic vehicles.

4. **Quotations and Tenders [Strategic Plan Goal No. 3]**

A summary of tenders and quotations received in the month of September 2022 awarded under the authority of the Director of Public Works and Engineering or the Chief Administrative Officer is as follows:

a) PWO-2022-10 – Concrete Curb Replacement
   1. Neptune Security Services, Mississauga, ON $62,381.61
   2. Bonnechere Excavating Inc., Renfrew, ON $88,592.00

b) PWO-2022-23 – Crack Sealing
   1. Roadlast Asphalt & Sealing Maintenance Inc., Kemptville, ON $31,050
   2. Greenwood Paving (Pembroke) Ltd., Pembroke, ON $33,645
   3. Neptune Security Services Inc., Mississauga, ON $45,000
   4. Upper Canada Road Services Inc., Markham, ON $45,000

All amounts exclude applicable taxes.

In all cases the procurements have followed the processes set out in Corporate Policy GA-01 Procurement of Goods and Services.