# The Corporation of the County of Wellington
# Roads Committee
# Agenda

October 8, 2024
9:00 am
County Administration Centre
Keith Room

Members: Warden Lennox; Councillors Davidson (Chair), Cork, Dehn and Turton

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# COUNTY OF WELLINGTON

## COMMITTEE REPORT

**To:** Chair and Members of the Roads Committee
**From:** **Kevin Mulholland, Construction & Property Manager**
**Date:** Tuesday, October 8, 2024
**Subject:** Arthur Garage Construction Project - Status Report #9

| | |
|---|---|
| Work completed to date | - Mech. & elec. installations have continued<br>- geothermal well installation has continued<br>- masons are now complete<br>- equipment shed framing has continued<br>- window installation is complete<br>- Crane base & mast have been installed<br>- Drywall installation has begun<br>- Exterior siding has started<br>- Concrete curbs & sidewalks have begun<br>- Painting has started |
| Work to be completed in the next month | - Framing of equipment shed will continue<br>- Mech. & elec. underground & rough ins to continue<br>- Drilling for geothermal field will continue<br>- Trench drains & in floor heat will be installed<br>- Concrete slab on grade will be poured<br>- Drywall will continue<br>- Wall siding will be complete<br>- Sanitary & septic installation will begin<br>- Curbs & sidewalks will be complete<br>- Paving will get started<br>- O.H. door installation scheduled to begin |
| Status of construction schedule | - Completion is currently scheduled for December of 2024 |
| C.O.'s approved since last meeting | 0 |
| Total change orders approved to date | 0 |
| Net value of C.O.'s approved to date | $0.00 |

### Recommendation:

Arthur Garage Construction Project - Status Report #9 be received for information.

Respectfully submitted,

Kevin Mulholland
Construction & Property Manager

COUNTY OF WELLINGTON

# Committee Report

**To:** Chair and Members of the Roads Committee
**From:** Ken DeHart, County Treasurer
**Date:** Tuesday, October 08, 2024
**Subject:** **Roads Financial Statements and Variance Projections as of September 30, 2024**

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## Background:

This report is respectfully submitted in accordance with the County's Budget Management Policy and provides an updated projection to year-end based on expenditures and revenues to September 30, 2024, for the Roads Division.

**Operating**

- Municipal recoveries are tracking below budgeted expectations at this time. If these recoveries follow a similar path as last year, it's likely that they will come in close to budget with a possible negative variance.
- User fees and charges are at 81% of budget to the end of September - the aggregate fee revenue for the year has been received ($230,563) and has been transferred to the Roads Capital Reserve; permit fees are close to budget with no significant variance anticipated.
- The majority of revenue from the sale of equipment is typically received in the fall.
- Supplies, materials, and equipment are under budget to date. The majority of this relates to sand and salt expenditures, which includes amounts used directly by the County and amounts that are sold to the County's member municipalities. Parts are currently at 72% of the $1.0 million budgeted amount, with fuel at 60% of the $1.2 million budget. If the winter months follow a similar path as 2023 it's likely there will be no variance to parts and possible savings in fuel of between $100,000 and $150,000.
- Purchased services are tracking close to budget which includes line painting for the year. Additional work is still to be undertaken through the rest of the year and any variances will depend on road maintenance needs through the winter months.
- Insurance and financial expense are high relative to this point in the year; however, the annual insurance payment has been completed; the remaining amount will be expended through payroll as it relates to employee related insurance costs, a small negative variance will occur
- Internal charges are tracking to budget and relate to winter control costs incurred earlier in the year, this is offset by the internal recoveries line.
- Net operating expenditures for all roads maintenance activities excluding winter control are at 78% expended to the end of September:
    - This includes the annual contract payment of $827K expenditure for road painting under roads safety devices, which is under the $900K budgeted amount
    - As indicated above parts and fuel expenses may result in savings of between $100,000 and $150,000
    - It is likely that roads maintenance activities will come in close to the budgeted amount, depending on resources allocated to maintenance activities during the winter months.

**Winter Control**

- There is approximately $3.5 million of winter control budget remaining, although some costs for work done by other municipalities on the County's behalf have yet to be processed. Costs in the previous five years for winter control for the period from October to December have averaged just under $1.9 million, with a high of $2.3 million (inflated into 2024 dollars). If that trend continues, the year-end savings is likely to be in the range of $1.2-$1.4 million. Any savings or overages will be transferred to or from the Winter Control reserve, which currently has a balance of $6.1 million. The current target range for the reserve is 12-18 months of winter control expenditures, which would put the target range at $6.7-$10.0 million.
- Municipal recoveries specific to winter control are below budget (35%) at this point. Additional invoices will be sent later in the year to municipalities for work completed on boundary roads and winter control. The magnitude of the variance (which will be offset by costs), will be dependent on the severity of the weather in the last two months of the year.

The final roads variance will depend on the severity of the weather in the last two months of the year and the extent to which resources are allocated to other service areas in the event of a mild winter. If this year holds up similar to the last couple of years, Roads will be over budget in roads maintenance activities, offset by savings in winter control. Overall, Roads Division should be within budget.

**Capital**

Roads capital addresses the needs of the existing County network of road and bridge infrastructure, facilities and equipment, and growth related infrastructure. Works are administered by County Engineering staff. This report provides a summary of the 2024 Roads capital spending for the period ending September 30, 2024.

The total approved budget of $116,651,000 consists of 68 projects. Roads capital is primarily funded by the Roads Capital Reserve but also relies on the Canada Community Building Fund (CCBF), Ontario Community Infrastructure Fund (OCIF) and development charges for growth related projects.

| | |
|---|---|
| **Open Capital Projects on December 31, 2023** | $79,276,000 |
| Add: 2024 Approved Capital Budget | 37,375,000 |
| Total Approved Budget | $116,651,000 |
| Less: Budget Adjustments | (1,514,000) |
| Less: Capital Projects Closed to date in 2024 | (25,455,000) |
| Less: Prior Year Capital Spending | (19,645,456) |
| Less: 2024 Capital Spending | (22,142,372) |
| **Open Capital Projects on September 30, 2024** | **$47,894,172** |

Year to date, Council approved seven capital budget adjustments, resulting in $1,236,000 returning to capital reserves and a net $277,000 reduction in funding from other funding sources. In addition, fourteen projects have been closed, returning $2.9 million to capital reserves.

| Project | Capital Reserve | CCBF | OCIF | Development Charges |
|---|---|---|---|---|
| WR7 Bosworth Bridge, B007028 | (100,000) | (70,000) | (70,000) | |
| WR 109 Asphalt Rehab | 1,800,000 | | | |
| WR 17, Bridge B017114 Rehab | (25,000) | | | |
| WR 124, Guelph to Whitelaw | (650,000) | | | (195,000) |
| WR 34, Bridge B034123 Rehabilitation | 208,000 | | 536,000 | |
| WR 18, Culvert C180210, Linear | 670,000 | | | |
| WR 18, Phase 2 Road Rehabilitation | (667,000) | | 250,000 | (173,000) |
| Total Project Amendments | 1,236,000 | (70,000) | 716,000 | (369,000) |
| Roads Equipment 2023 | 322,151 | | | |
| 2023 Pavement Preservation | (1,233) | | | |
| WR 124 at WR 32 Intersection | 3,579 | | | |
| WR 32, WR 33 to Con 2, 2.5 km | 243,706 | | | |
| WR 7 from WR51 to Passing Lane | 248,708 | | | |
| 2023 Various Bridge Patches | 1,101 | | | |
| WR 17, Bridge B017114, Rehab | (30,599) | | | |
| WR 18, Carroll Creek B018090 | 161,036 | | | |
| WR 35, Paddock Bridge, B035087 | 730,953 | | | |
| WR 7, Elora Gorge Xing B007059 | 2,556 | | | |
| WR 86, Bridge Rehab with Perth | 140,966 | | | |
| WR 109, Hwy6 to Dufferin, 11k | 553,518 | | | |
| WR 123, Palm to Teviotdale | 396,589 | | | |
| WR 18, Fergus to Dufferin PH 1 | 137,355 | | | |
| Total Closed Projects | 2,910,386 | | | |
| **Net In-year Funding Activity** | **4,146,386** | **(70,000)** | **716,000** | **(369,000)** |

(-) indicates a draw from the funding source, + indicates a return to the funding source

**Open Capital Project Details**

Roads staff have reviewed the listing of existing projects and provided comments on project status and estimated completion timing where possible in the following table.

| | LTD Budget | LTD Actuals | Remaining Budget | Comments |
|---|---|---|---|---|
| **Roads General** | | | | |
| 2024 Radio Equipment Replacement | $150,000 | $33,937 | $116,063 | Project ongoing. Anticipated completion Q4 2024. Project on-track and within budget. |
| 2024 Roads Equipment | $3,920,000 | $2,272,020 | $1,647,980 | Project ongoing. |

| | LTD Budget | LTD Actuals | Remaining Budget | Comments |
|---|---|---|---|---|
| 2024 Various Facility Repairs | $100,000 | $96,545 | $3,455 | Project ongoing. Anticipated completion Q4 2024. Project on-track and within budget. |
| Arthur Garage | $16,800,000 | $8,105,573 | $8,694,427 | Project ongoing. Anticipated completion Q4 2024. |
| Elora Facility Rehabilitation | $400,000 | $2,707 | $397,293 | Study ongoing. Unknown completion date at this time. |
| Erin Garage | $2,300,000 | $16,247 | $2,283,754 | Project ongoing. Unknown completion date at this time. |
| **Subtotal Roads General** | **$23,670,000** | **$10,527,029** | **$13,142,971** | |
| **Engineering** | | | | |
| 2023 Speed Management | $500,000 | $192,994 | $307,006 | Project ongoing. Unknown completion date at this time. |
| 2024 Pavement Preservation Project | $2,000,000 | $979,767 | $1,020,233 | Project ongoing. Anticipated completion Q4 2024. |
| 2024 Speed Management | $200,000 | $777 | $199,223 | Project ongoing. Anticipated completion Q4 2024. Project on-track and within budget. |
| 2024 Warranty Works | $100,000 | $41,990 | $58,010 | Project ongoing. Anticipated completion Q4 2024. Project on-track and within budget. |
| Pavement Condition Study | $110,000 | $52,779 | $57,221 | Project ongoing. Anticipated completion Q4 2024. |
| WR 109, Bridge Work Strategy | $346,600 | $406,390 | ($59,790) | Project will be closed at year-end at approx. $60,000 over budget due to additional fluvial geomorphology and archaeological investigations. Overage will be funded from the Roads Capital Reserve |
| **Subtotal Engineering** | **$3,256,600** | **$1,674,697** | **$1,581,903** | |

| | LTD Budget | LTD Actuals | Remaining Budget | Comments |
|---|---|---|---|---|
| **Growth Related Construction** | | | | |
| WR 124, Guelph to Whitelaw | $4,995,000 | $3,295,368 | $1,699,632 | Project ongoing. Anticipated completion Q4 2024. |
| WR 18, Phase 2 Rehabilitation | $5,940,000 | $251,158 | $5,688,842 | Proposed tender Fall 2024. Expected completion 2025. |
| WR 7 @ 1st Line Roundabout | $1,875,000 | $2,362,145 | ($487,145) | Project ongoing. Overage due to utility relocation and land acquisition cost overruns. Staff to bring construction update report to November Committee meeting. |
| WR 8 at WR 9, Roundabout | $110,000 | $24,365 | $85,635 | Project ongoing. Unknown completion date at this time. |
| WR124, Whitelaw Int to E of 32 | $50,000 | $7,410 | $42,590 | Project ongoing. Anticipated completion 2027. |
| **Subtotal Growth-Related Construction** | **$12,970,000** | **$5,940,446** | **$7,029,554** | |
| **Roads Construction** | | | | |
| Erin Linear Works | $60,000 | $0 | $60,000 | Recoverable project from Town of Erin. Anticipated completion Q4 2024. |
| WR 109 TEV to HAR 10km | $3,200,000 | $209,100 | $2,990,900 | Project ongoing. Anticipated completion Q4 2024. |
| WR 123, Palmerston WR 5 to Hwy | $230,000 | $178,467 | $51,533 | Design work ongoing. Unknown completion date at this time. |
| WR 124, Land & Utility GET Rd1 | $8,000,000 | $4,476,662 | $3,523,338 | Project ongoing. Anticipated completion 2027. |
| WR 18, Mill to Elora PS St Swr | $1,150,000 | $824,882 | $325,118 | Project ongoing. CW Lead Project. Phase 2 invoicing anticipated by Q4 2024. |
| WR 25, WR 52 to WR 42, 7 km | $10,750,000 | $3,192,086 | $7,557,914 | Phase 2 project ongoing (land expropriation). Peel Region Lead Project. Unknown completion date at this time. |

| | LTD Budget | LTD Actuals | Remaining Budget | Comments |
|---|---|---|---|---|
| WR 42 at WR 24 Intersection | $825,000 | $956,179 | ($131,179) | Project ongoing: Staff to bring construction update report to November Committee meeting |
| WR 5, WR 123 to Lett St Minto | $1,600,000 | $1,215,808 | $384,192 | Project ongoing into Phase 2 surface paving. Expected completion Q4 2024. |
| WR 9, WR 109 to WR 8 (Perth) 5 | $25,000 | $16,027 | $8,973 | Design and Geotech works ongoing. Unknown completion date at this time. |
| WR18 Geddes St Elora, RtngWall | $125,000 | $43,281 | $81,719 | Design work ongoing. Anticipated construction 2025. |
| **Subtotal Roads Construction** | **$25,965,000** | **$11,112,493** | **$14,852,507** | |
| **Bridges** | | | | |
| WR 109, CR Bridge 4, B109133 | $50,000 | $34,329 | $15,671 | Design work ongoing. Proposed tender and start of construction in 2025. |
| WR 109, CR Bridge 10 B109134 | $50,000 | $0 | $50,000 | Design work ongoing. Proposed tender and start of construction in 2025. |
| WR 109, CR Bridge 6 B109132 | $5,149,400 | $169,251 | $4,980,149 | Design work ongoing. Proposed tender and start of construction in 2025. |
| WR 11, Flax Bridge B011025 Rep | $650,000 | $156,908 | $493,092 | Design work ongoing. Proposed tender and start of construction in 2025. |
| WR 12, Bridge B012100 Replace | $100,000 | $16,160 | $83,840 | Design work ongoing. Anticipated completion 2025. |
| WR 32, Blatchford Bridge, Repl | $220,000 | $51,571 | $168,429 | Class EA ongoing. Unknown completion date at this time. |
| WR 34, Bridge B034123, Rehab | $516,000 | $453,420 | $62,580 | Project ongoing. Anticipated completion Q4 2024. |
| WR 36, Bridge B036086, Replace | $75,000 | $3,564 | $71,436 | Design work ongoing. Unknown completion date at this time. |
| WR 38, Bridge B038078, Replace | $100,000 | $64,578 | $35,422 | Design work ongoing. Anticipated |

| | LTD Budget | LTD Actuals | Remaining Budget | Comments |
|---|---|---|---|---|
| | | | | construction 2025. Shared project with City of Guelph. |
| WR 42, Bridge B042111, Rehab | $650,000 | $529,375 | $120,625 | Municipal recovery expected and will partially offset negative variance in WR 42 at WR 24 project. |
| WR 7, Bosworth Bridge, B007028 | $6,590,000 | $3,928,523 | $2,661,477 | Project ongoing. Anticipated completion Q4 2024. |
| **Subtotal Bridges** | **$14,150,400** | **$5,407,678** | **$8,742,722** | |
| **Culverts** | | | | |
| 2023 Various Culvert Needs | $950,000 | $642,344 | $307,656 | Project ongoing. Anticipated completion Q4 2024. |
| 2024 Municipal Drains | $100,000 | $6,968 | $93,032 | Project ongoing. |
| 2024 Various Culvert Needs | $200,000 | $61,046 | $138,954 | Project ongoing. |
| WR 10, Clvrt C100970, Replace | $50,000 | $26,184 | $23,816 | Design work ongoing. Unknown completion date at this time. |
| WR 10, Clvrt C101000, Replace | $50,000 | $12,976 | $37,024 | Design work ongoing. Anticipated tender and construction in 2025. |
| WR 109, Clvrt C109142, Replace | $150,000 | $58,514 | $91,486 | Design work ongoing. Unknown completion date at this time. |
| WR 18, Culvert C180210, Liner | $930,000 | $139,398 | $790,602 | Project ongoing. Anticipated completion Q4 2024. |
| **Subtotal Culverts** | **$2,430,000** | **$947,429** | **$1,482,571** | |
| **Roads Resurfacing** | | | | |
| WR 11, 300mS 16th Line - WR109 | $1,325,000 | $1,210,532 | $114,468 | Project ongoing. Anticipated completion Q4 2024. |
| WR 18, WR 7 to ROW boundary | $110,000 | $16,536 | $93,464 | Design and Geotech ongoing. Unknown completion date at this time. |
| WR 22, WR 26 to 300m S of WR24 | $5,650,000 | $4,874,061 | $775,939 | Phase 3 design work ongoing. Unknown completion date at this time. |
| WR 34, WR 33 to WR32, 2km | $55,000 | $45,919 | $9,081 | Geotech work ongoing. Unknown |

| | LTD Budget | LTD Actuals | Remaining Budget | Comments |
|---|---|---|---|---|
| | | | | completion date at this time. |
| WR 35, WR 34 to Hamilton bound | $25,000 | $0 | $25,000 | Design work ongoing. Unknown completion date at this time. |
| WR 7, Rothsay to Sideroad 3 | $25,000 | $2,771 | $22,229 | Design work ongoing. Unknown completion date at this time. |
| WR 7, Rothsay to WR 11, 5.2 km | $50,000 | $28,238 | $21,762 | Design work ongoing. Unknown completion date at this time. |
| **Subtotal Roads Resurfacing** | **$7,240,000** | **$6,178,057** | **$1,061,943** | |
| **Total Roads and Engineering** | **$89,682,000** | **$41,787,828** | **$47,894,172** | |

## Strategic Action Plan:

This report relates to the following objectives and priorities in the County's Strategic Action Plan:

- Making the best decisions for the betterment of the Community

## Recommendation:

That the Financial Statements and Variance Projections as of September 30, 2024 for the Roads Division be approved.

Respectfully submitted,

Ken DeHart, CPA, CGA
County Treasurer

# County of Wellington

## Roads and Engineering

Statement of Operations as of

30 Sep 2024

| | Annual Budget | September Actual $ | YTD Actual $ | YTD Actual % | Remaining Budget |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| Municipal Recoveries | $1,335,900 | $42,935 | $745,823 | 56% | $590,077 |
| User Fees and Charges | $488,000 | $242,252 | $393,605 | 81% | $94,395 |
| Sales Revenue | $720,000 | $966 | $205,382 | 29% | $514,618 |
| Internal Recoveries | $2,241,800 | $114,067 | $1,783,558 | 80% | $458,242 |
| **Total Revenue** | **$4,785,700** | **$400,220** | **$3,128,368** | **65%** | **$1,657,332** |
| **Expenditures** | | | | | |
| Salaries, Wages and Benefits | $8,187,200 | $586,741 | $6,232,502 | 76% | $1,954,698 |
| Supplies, Material, Equipment | $7,151,400 | $174,452 | $4,083,588 | 57% | $3,067,812 |
| Purchased Services | $2,979,200 | $93,258 | $2,292,113 | 77% | $687,087 |
| Insurance and Financial | $938,000 | $287 | $842,640 | 90% | $95,360 |
| Minor Capital Expenses | $300,000 | $53,687 | $178,046 | 59% | $121,954 |
| Internal Charges | $1,901,800 | $73,135 | $1,224,039 | 64% | $677,761 |
| **Total Expenditures** | **$21,457,600** | **$981,559** | **$14,852,928** | **69%** | **$6,604,672** |
| NET OPERATING COST / (REVENUE) | $16,671,900 | $581,339 | $11,724,560 | 70% | $4,947,340 |
| **Debt and Transfers** | | | | | |
| Debt Charges | $1,471,100 | $0 | $745,830 | 51% | $725,270 |
| Transfers from Reserves | $(1,337,300) | $0 | $0 | 0% | $(1,337,300) |
| Transfer to Reserves | $21,150,000 | $230,563 | $20,430,563 | 97% | $719,437 |
| **Total Debt and Transfers** | **$21,283,800** | **$230,563** | **$21,176,393** | **99%** | **$107,407** |
| **NET COST (REVENUE)** | **$37,955,700** | **$811,902** | **$32,900,953** | **87%** | **$5,054,747** |

# County of Wellington

02-October-2024

Roads and Engineering

Capital Work-in-Progress Expenditures By Departments

All Open Projects For The Period Ending September 30, 2024

| | Approved Budget | September Actual | LIFE-TO-DATE ACTUALS Current Year | Previous Years | Total | % of Budget | Remaining Budget |
|---|---|---|---|---|---|---|---|
| **Roads General** | | | | | | | |
| 2024 Radio Equipment Rpl | $150,000 | $20,047 | $33,937 | $0 | $33,937 | 23 % | $116,063 |
| 2024 Roads Equipment | $3,920,000 | $11,794 | $2,272,020 | $0 | $2,272,020 | 58 % | $1,647,980 |
| 2024 Various Facility Repairs | $100,000 | $0 | $92,581 | $3,965 | $96,545 | 97 % | $3,455 |
| Arthur Garage | $16,800,000 | $18,380 | $4,190,735 | $3,914,838 | $8,105,573 | 48 % | $8,694,427 |
| Elora Facility Rehabilitation | $400,000 | $0 | $2,707 | $0 | $2,707 | 1 % | $397,293 |
| Erin Garage | $2,300,000 | $0 | $16,247 | $0 | $16,247 | 1 % | $2,283,754 |
| **Subtotal Roads General** | **$23,670,000** | **$50,221** | **$6,608,226** | **$3,918,803** | **$10,527,029** | **44%** | **$13,142,971** |
| **Engineering** | | | | | | | |
| 2023 Speed Management | $500,000 | $22,299 | $95,103 | $97,891 | $192,994 | 39 % | $307,006 |
| 2024 Pavement Preservation Pro | $2,000,000 | $8,526 | $979,767 | $0 | $979,767 | 49 % | $1,020,233 |
| 2024 Speed Management | $200,000 | $777 | $777 | $0 | $777 | 0 % | $199,223 |
| 2024 Warranty Works | $100,000 | $7,387 | $41,990 | $0 | $41,990 | 42 % | $58,010 |
| Pavement Condition Study | $110,000 | $16,766 | $52,779 | $0 | $52,779 | 48 % | $57,221 |
| WR 109, Bridge Work Strategy | $346,600 | $4,545 | $33,825 | $372,565 | $406,390 | 117 % | -$59,790 |
| **Subtotal Engineering** | **$3,256,600** | **$60,300** | **$1,204,241** | **$470,455** | **$1,674,697** | **51%** | **$1,581,903** |
| **Growth Related Construction** | | | | | | | |
| WR 124, Guelph to Whitelaw | $4,995,000 | $0 | $3,295,368 | $0 | $3,295,368 | 66 % | $1,699,632 |
| WR 18, Phase 2 Rehabilitation | $5,940,000 | $251,158 | $251,158 | $0 | $251,158 | 4 % | $5,688,842 |
| WR 7 @ 1st Line Roundabout | $1,875,000 | $389,178 | $2,141,628 | $220,518 | $2,362,145 | 126 % | -$487,145 |
| WR 8 at WR 9, Roundabout | $110,000 | $14,824 | $24,365 | $0 | $24,365 | 22 % | $85,635 |
| WR124, Whitelaw Int to E of 32 | $50,000 | $0 | $0 | $7,410 | $7,410 | 15 % | $42,590 |
| **Subtotal Growth Related Constructi** | **$12,970,000** | **$655,160** | **$5,712,518** | **$227,927** | **$5,940,446** | **46%** | **$7,029,554** |

# County of Wellington

02-October-2024

Roads and Engineering

Capital Work-in-Progress Expenditures By Departments

All Open Projects For The Period Ending September 30, 2024

| | | | LIFE-TO-DATE ACTUALS | | | | |
|---|---|---|---|---|---|---|---|
| | Approved Budget | September Actual | Current Year | Previous Years | Total | % of Budget | Remaining Budget |
| **Roads Construction** | | | | | | | |
| Erin Linear Works | $60,000 | $0 | $0 | $0 | $0 | 0% | $60,000 |
| WR 109 TEV to HAR 10km | $3,200,000 | $43,569 | $209,100 | $0 | $209,100 | 7% | $2,990,900 |
| WR 123, Palmerston WR 5 to Hwy | $230,000 | $0 | $57,546 | $120,921 | $178,467 | 78% | $51,533 |
| WR 124, Land & Utility GET Rd1 | $8,000,000 | $6,439 | $1,588,006 | $2,888,657 | $4,476,662 | 56% | $3,523,338 |
| WR 18, Mill to Elora PS St Swr | $1,150,000 | $0 | $0 | $824,882 | $824,882 | 72% | $325,118 |
| WR 25, WR 52 to WR 42, 7 km | $10,750,000 | $0 | $0 | $3,192,086 | $3,192,086 | 30% | $7,557,914 |
| WR 42 at WR 24 Intersection | $825,000 | $7,760 | $645,614 | $310,565 | $956,179 | 116% | -$131,179 |
| WR 5, WR 123 to Lett St Minto | $1,600,000 | $0 | $0 | $1,215,808 | $1,215,808 | 76% | $384,192 |
| WR 9, WR 109 to WR 8 (Perth) 5 | $25,000 | $8,014 | $16,027 | $0 | $16,027 | 64% | $8,973 |
| WR18 Geddes St Elora, RtngWall | $125,000 | $0 | $0 | $43,281 | $43,281 | 35% | $81,719 |
| **Subtotal Roads Construction** | **$25,965,000** | **$65,783** | **$2,516,293** | **$8,596,201** | **$11,112,493** | **43%** | **$14,852,507** |
| **Bridges** | | | | | | | |
| WR 109, CR Bridge 4, B109133 | $50,000 | $0 | $0 | $34,329 | $34,329 | 69% | $15,671 |
| WR 109,CR Bridge 10 B109134 | $50,000 | $0 | $0 | $0 | $0 | 0% | $50,000 |
| WR 109,CR Bridge 6 B109132 | $5,149,400 | $68,989 | $134,377 | $34,874 | $169,251 | 3% | $4,980,149 |
| WR 11, Flax Bridge B011025 Rep | $650,000 | $345 | $41,258 | $115,650 | $156,908 | 24% | $493,092 |
| WR 12, Bridge B012100 Replace | $100,000 | $3,020 | $10,109 | $6,051 | $16,160 | 16% | $83,840 |
| WR 32, Blatchford Bridge, Repl | $220,000 | $4,317 | $51,571 | $0 | $51,571 | 23% | $168,429 |
| WR 34, Bridge B034123, Rehab | $516,000 | $8,055 | $374,475 | $78,945 | $453,420 | 88% | $62,580 |
| WR 36, Bridge B036086, Replace | $75,000 | $0 | $0 | $3,564 | $3,564 | 5% | $71,436 |
| WR 38, Bridge B038078, Replace | $100,000 | $0 | $2,288 | $62,290 | $64,578 | 65% | $35,422 |
| WR 42, Bridge B042111, Rehab | $650,000 | $26,177 | $122,754 | $406,620 | $529,375 | 81% | $120,625 |
| WR 7, Bosworth Bridge, B007028 | $6,590,000 | $1,021,520 | $3,472,873 | $455,651 | $3,928,523 | 60% | $2,661,477 |
| **Subtotal Bridges** | **$14,150,400** | **$1,132,423** | **$4,209,705** | **$1,197,973** | **$5,407,678** | **38%** | **$8,742,722** |

# County of Wellington

02-October-2024

Roads and Engineering

Capital Work-in-Progress Expenditures By Departments

All Open Projects For The Period Ending September 30, 2024

| | Approved Budget | September Actual | LIFE-TO-DATE ACTUALS Current Year | Previous Years | Total | % of Budget | Remaining Budget |
|---|---|---|---|---|---|---|---|
| **Culverts** | | | | | | | |
| 2023 Various Culvert Needs | $950,000 | $285,897 | $590,438 | $51,905 | $642,344 | 68 % | $307,656 |
| 2024 Municipal Drains | $100,000 | $0 | $6,155 | $813 | $6,968 | 7 % | $93,032 |
| 2024 Various Culvert Needs | $200,000 | $14,271 | $61,046 | $0 | $61,046 | 31 % | $138,954 |
| WR 10, Clvrt C100970, Replace | $50,000 | $4,839 | $20,542 | $5,643 | $26,184 | 52 % | $23,816 |
| WR 10, Clvrt C101000, Replace | $50,000 | $884 | $8,564 | $4,412 | $12,976 | 26 % | $37,024 |
| WR 109, Clvrt C109142, Replace | $150,000 | $0 | $9,457 | $49,057 | $58,514 | 39 % | $91,486 |
| WR 18, Culvert C180210, Liner | $930,000 | $561 | $19,277 | $120,121 | $139,398 | 15 % | $790,602 |
| **Subtotal Culverts** | **$2,430,000** | **$306,452** | **$715,478** | **$231,950** | **$947,429** | **39%** | **$1,482,571** |
| **Roads Resurfacing** | | | | | | | |
| WR 11, 300mS 16th Line - WR109 | $1,325,000 | $0 | $1,149,354 | $61,178 | $1,210,532 | 91 % | $114,468 |
| WR 18, WR 7 to ROW boundary | $110,000 | $8,268 | $16,536 | $0 | $16,536 | 15 % | $93,464 |
| WR 22, WR 26 to 300m S of WR24 | $5,650,000 | $0 | $0 | $4,874,061 | $4,874,061 | 86 % | $775,939 |
| WR 34, WR 33 to WR32, 2km | $55,000 | $0 | $7,250 | $38,669 | $45,919 | 83 % | $9,081 |
| WR 35, WR 34 to Hamilton bound | $25,000 | $0 | $0 | $0 | $0 | 0 % | $25,000 |
| WR 7, Rothsay to Sideroad 3 | $25,000 | $2,771 | $2,771 | $0 | $2,771 | 11 % | $22,229 |
| WR 7, Rothsay to WR 11, 5.2 km | $50,000 | $0 | $0 | $28,238 | $28,238 | 56 % | $21,762 |
| **Subtotal Roads Resurfacing** | **$7,240,000** | **$11,039** | **$1,175,911** | **$5,002,146** | **$6,178,057** | **85%** | **$1,061,943** |
| **Equipment** | | | | | | | |
| **Subtotal Equipment** | **$0** | **$0** | **$0** | **$0** | **$0** | **0%** | **$0** |
| **Total Roads and Engineering** | **$89,682,000** | **$2,281,378** | **$22,142,372** | **$19,645,456** | **$41,787,828** | **47 %** | **$47,894,172** |

COUNTY OF WELLINGTON

# Committee Report

**To:** Chair and Members of the Roads Committee
**From:** Don Kudo, County Engineer
**Date:** Tuesday, October 08, 2024
**Subject:** **Automated Speed Enforcement – Trial Locations**

## Background:

As reported at last month's Roads Committee meeting, the County is now in the position to post the required 90 day warning signs for Automated Speed Enforcement (ASE). Staff have worked with Global Traffic Group to determine the initial trial locations on the County road network. Since the Province only allows for ASE to be implemented in School Zones and Community Safety Zones (CSZ), staff are recommending the following seven CSZ as the initial locations for the ASE trial programme:

| Municipality | County Road | From: | To: |
|---|---|---|---|
| Wellington North | Wellington Road 6 (Sligo Road E) | a point 50 metres west of Church Street North | a point 125 metres west of London Road North |
| Mapleton | Wellington Road 11 (Wellington Street S) | the intersection with Andrews Drive | the intersection with Spring Street |
| Centre Wellington | Wellington Road 18 (Belsyde Avenue E) | the intersection with Highway 6 (Tower Street S) | the intersection with McTavish Street |
| Erin | Wellington Road 24 (Trafalgar Road) | the intersection with Church Street | a point 75 metres north of Jane Street |
| Puslinch | Wellington Road 46 (Brock Road S) | a point 225 metres north of Old Brock Road | a point 300 metres south of Old Brock Road |
| Minto | Wellington Road 123 (Main Street) | the intersection with Henry Street | the intersection with York Street |
| Guelph Eramosa | Wellington Rd 27 (Main St N) | 30 m West of Rockmosa Dr | 20 m West of Edgar Bonner Ave |

The seven CSZ locations were selected to provide one trial ASE location in each Town and Township in the County. This will give each Town and Township experience with ASE during the one year trial period prior to ASE being possibly implemented in the local municipalities. For each Town and Township, there was only one previously established CSZ with the exception of Guelph Eramosa Township (no CSZ), Town of Erin (2 CSZ) and Township of Centre Wellington (3 CSZ). The selection for the ASE location in Guelph Eramosa Township was the newly established CSZ on Wellington Road 29 that was previously a school zone. For the Town of Erin and Township of Centre Wellington, the ASE

location selection was based on the highest scoring CSZ as determined in the Road Master Action Plan in 2022. The CSZ scoring for these locations was also compared with speed monitoring data and heat map analysis by Global Traffic Group to confirm the choice of ASE implementation.

The selection of seven locations to start the ASE programme was seen as a manageable number of locations for this new programme for both the County and Global Traffic Group. Following the initial ASE launch and programme monitoring, it is proposed that additional locations in the other remaining CSZ (previously school zones) be implemented by September,2025. Staff will report back to confirm the implementation timing for these future ASE locations.

Should the Roads Committee approve the seven locations outlined in the report, staff will proceed to post the 90 day warning signs at these locations by mid October, 2024. This will allow for ASE cameras to be operational at these locations in early 2025. Communication through a variety of media will coincide with the 90 day warning sign posting to advise the public about the upcoming Automated Speed Enforcement programme.

## Strategic Action Plan:

This report relates to the following objective and priority in the County's Strategic Action Plan:

Doing what the County does best – Providing Critical Daily Services for your residents

## Recommendation:

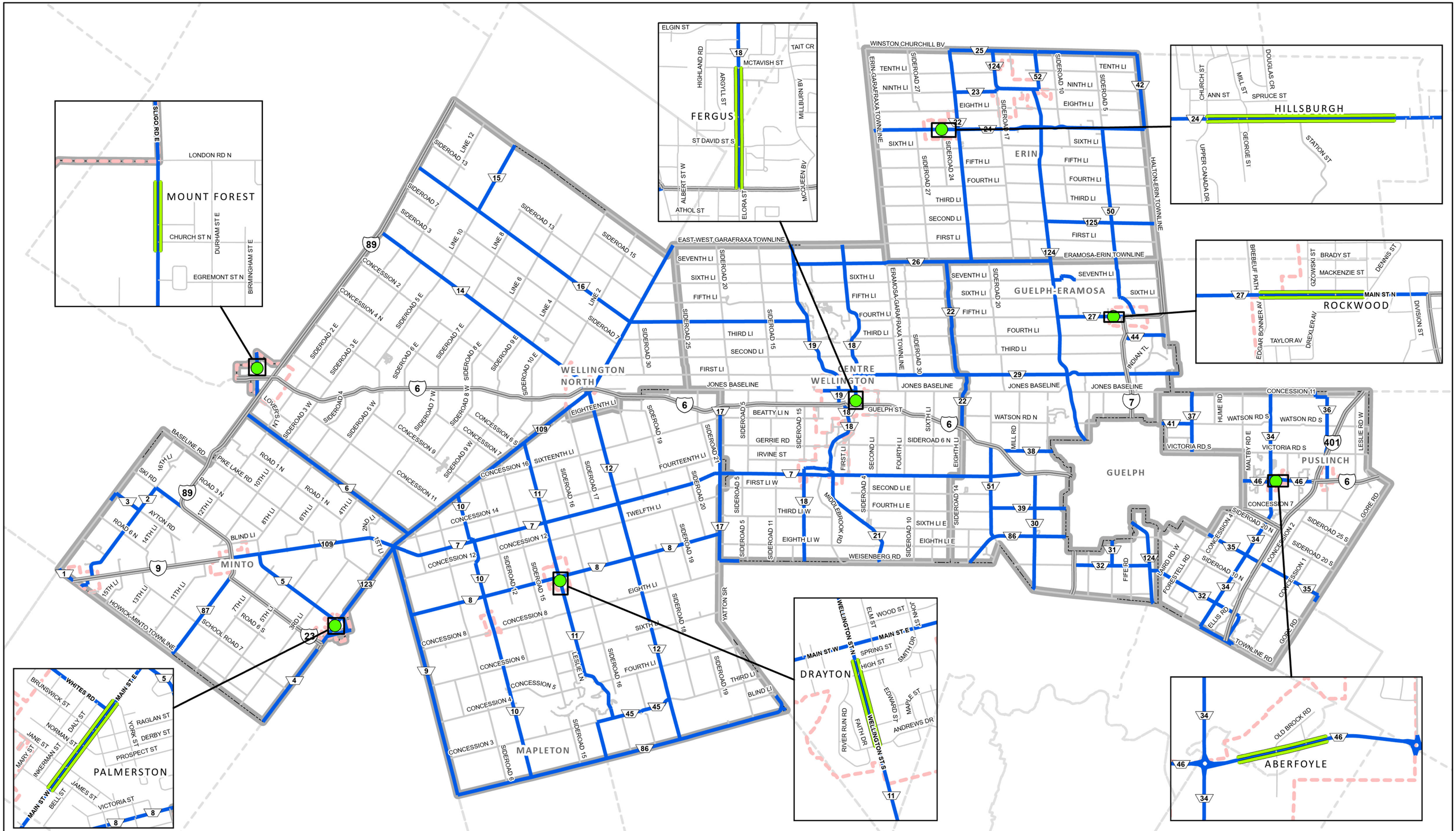
That the report Automated Speed Enforcement – Trial Locations be received for information;

And that the seven locations, as outlined in the report, be approved as trial locations for Automated Speed Enforcement

Respectfully submitted,

Don Kudo, P. Eng.
County Engineer

Attachment – Map: Automated Speed Enforcement - Trial Locations




# WELLINGTON COUNTY

COMMUNITY SAFETY ZONE
COMMUNITY SAFETY ZONE
LOCAL ROAD
COUNTY ROAD
HIGHWAY
URBAN BOUNDARY
MUNICIPAL BOUNDARY

## AUTOMATED SPEED ENFORCEMENT - TRIAL LOCATIONS

WELLINGTON COUNTY

0 2.5 5 10 Km

Scale: 1:250,000

Date: October 2024

Produced by: County of Wellington Roads Department

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# COUNTY OF WELLINGTON

## Committee Report

**To:** Chair and Members of the Roads Committee
**From:** Joe de Koning, Manager of Roads
**Date:** Tuesday, October 08, 2024
**Subject:** **Erin and Brucedale Garage Replacements**

---

### Background:

In May 2024, Committee and Council provided direction for staff to take the next steps in the development, planning and design of the Erin and Brucedale garage replacements. Staff have reached Step 8 of the Building Project Development and Approval Process Policy and are ready to hire an architect for the project.

Grinham Architects have been used by the County for three garage replacement projects, (Central, Drayton and Arthur) and have a detailed understanding of the needs of the County when designing a works garage. It is the recommendation of staff that Grinham Architects be retained for the Erin and Brucedale Garage replacement projects.

### Strategic Action Plan:

This report relates to the following objectives and priorities in the County's Strategic Action Plan:

Cherishing the County's Most Valuable Asset – its staff

### Recommendation:

That staff be given direction to negotiate an agreement with Grinham Architects for the design of the Erin and Brucedale Garage facility replacements;

And that the Roads Committee be approved as the Building Committee for the Erin and Brucedale Garage Replacement projects.

Respectfully submitted,

Joe de Koning, P.Eng.
Manager of Roads

Attachments: Building Project Development and Approval Process Policy

# COUNTY OF WELLINGTON
# POLICY AND PROCEDURE

| | |
|---|---|
| **DEPARTMENT:** | OFFICE OF CAO |
| **DIVISION:** | **EFFECTIVE DATE:** MARCH 28, 2024 |
| **SUBJECT:** | **BUILDING PROJECT DEVELOPMENT AND APPROVAL PROCESS POLICY** |
| **AUTHORITY:** | COUNTY COUNCIL |

**Building Project Development and Approval Process**

1) Staff/Council/Consultant identifies the need for a capital facility.

2) Staff write a report to Standing Committee (SC) outlining how the initiative aligns with the County's Strategic Action Plan or relevant Master Plan. The report will also outline the general purpose of the initiative with preliminary estimates of size, components, operational and community function, location, expected features, etc.

3) Treasury Staff will provide information on previously made 10 Year Plan allocations, if any.

4) SC gives direction for more investigation to address questions which arise during initial presentation.

5) SC Chair highlights project during presentation of SC minutes to Council, ie. direction to staff; scope development/changes; inputs and sources; etc. – this should occur at each County Council meeting throughout the process until project completion or termination.
6) Staff address questions, engaging consultants as appropriate to get answers.

7) Staff report to SC with more details as per previously asked questions, concluding the report with a recommendation that County Council approve proceeding to next steps (which may include: investigation of property acquisition; hiring of architects/consultants; establishment of a Building (or Project) Committee). Finance staff will start the process of budget compilation.

8) Following approval by County Council; the SC will consider striking a Building Committee and will establish its membership if so decided. Staff will conduct a process to hire an architect using the approved roster, which may involve interviews by the Building Committee (BC).

9) Once hired, the architect will develop a preliminary design based on input from the BC, staff and local interests (whose participation will be authorized by the BC.) Any major design inputs having an effect on the budget will be reported to the SC for approval before inclusion in the architect's design.

10) In accordance with the County's Climate Change Mitigation Plan ("Future Focused" adopted by County Council in February 2021) the Climate Change Co-ordinator (CCC) will participate with the architect, the County Construction Manager (CCM) and relevant Department Head, to consider "green" construction and operational features.

11) The CCM will refer accessibility features that exceed the OBC (in accordance with the Accessibility for Ontarians with Disabilities Act (2005)) to the County Clerk for consideration and referral to the Joint Accessibility Advisory Committee (JAAC). Comments from the JAAC will be referred to the architect.

12) If the SC wishes to use the Construction Management process with Guaranteed Maximum Price contract (CCDC5B) contract, it will make that recommendation to County Council. If approved by Council, an RFP will be issued for services. Once selected, the Construction Manager will work with the architect to establish prices as referred to in 13).

13) Once the final design is prepared, it will be presented to the SC. Included as part of this presentation, the architect will provide cost estimates based on a basic Ontario Building Code (OBC) design, and separate estimates pricing the cost of the "green" and accessibility features identified in items 10) and 11).

14) The SC will decide on which "green" and which accessibility features will be incorporated into the design, and will formalize in a recommendation to County Council.

15) Treasury Staff will provide an analysis of how to match resources to project cost estimates.

16) If the SC has opted for a Construction Manager (item 12)), they will provide a GMP, which will be presented to the SC, with a recommendation to County Council for approval or rejection.

17) If the SC wishes to proceed with the "Stipulated Sum Contract" (CCDC2) process, staff will issue tenders once the architect has prepared the appropriate tender documents.

18) The results of the Guaranteed Maximum Price process or the "stipulated sum contract" process will be presented to the SC, with recommendation to County Council for approval or rejection.

19) Once the project commences, County Councillors will be made aware of the dates of site meetings. Councillor participation is encouraged.

20) The CCM will report at SC meetings using the standardized format.

21) The SC Chair will highlight the CCM's monthly report during the presentation of SC minutes to County Council.

22) Once the project is complete, the Clerk's Department staff will schedule a ribbon cutting ceremony.

23) Steps may be combined or eliminated on the recommendation of Staff, and with the agreement of the SC Chair.

24) The County Clerk and the CCM will maintain a running log of when the steps above have been addressed. The log will be available for review at any time during the project. The completed log will be presented to the SC when the project is deemed complete by the CCM.

**Acronym List**

SC – Standing Committee
BC – Building Committee
CCC – Climate Change Co-ordinator
CCM – County Construction Manager
OBC – Ontario Building Code
GMP – Guaranteed Maximum Price

COUNTY OF WELLINGTON

# Committee Report

**To:** Chair and Members of the Roads Committee
**From:** Joe de Koning, Manager of Roads
**Date:** Tuesday, October 08, 2024
**Subject:** **Wellington Road 124 Construction Planning**

---

## Background:

In May 2024, construction began on the first phase of the reconstruction of WR124 from the City of Guelph Boundary to Guelph Eramosa Town Line 1. Phase two of the project is scheduled for 2026 and includes the work from Whitelaw Road to Guelph Eramosa Town Line 1 including building two round-a-bouts at WR32. In preparation for the next phase of the construction, utility relocations will continue through 2025.

The second phase of this construction work will be very disruptive to traffic flow along the corridor. Segments of the reconstruction include deep stormwater installations, and the removal of concrete road base and sub-excavation down the centre of the roadway. Opportunities for temporary road widenings are limited which will result in long travel delays. Experience shows that when delays occur, cut-through traffic finds its way onto secondary roads.

Recognizing the issues that will be faced with traffic starting in 2026 staff have reached out to Guelph Eramosa Township and the City of Guelph to discuss using Fife Road as a detour for the next stage of the construction. Township and City staff are agreeable to this proposal given the County work to prepare Fife Road with some upgrades and temporary signals.

Having Fife as a designated detour, will allow for planning and control of traffic, as well any investment to improve Fife Road will be recouped in construction savings realized due to closing WR124 to through traffic.

## Strategic Action Plan:

This report relates to the following objectives and priorities in the County's Strategic Action Plan:

Making the best decisions for the betterment of the Community

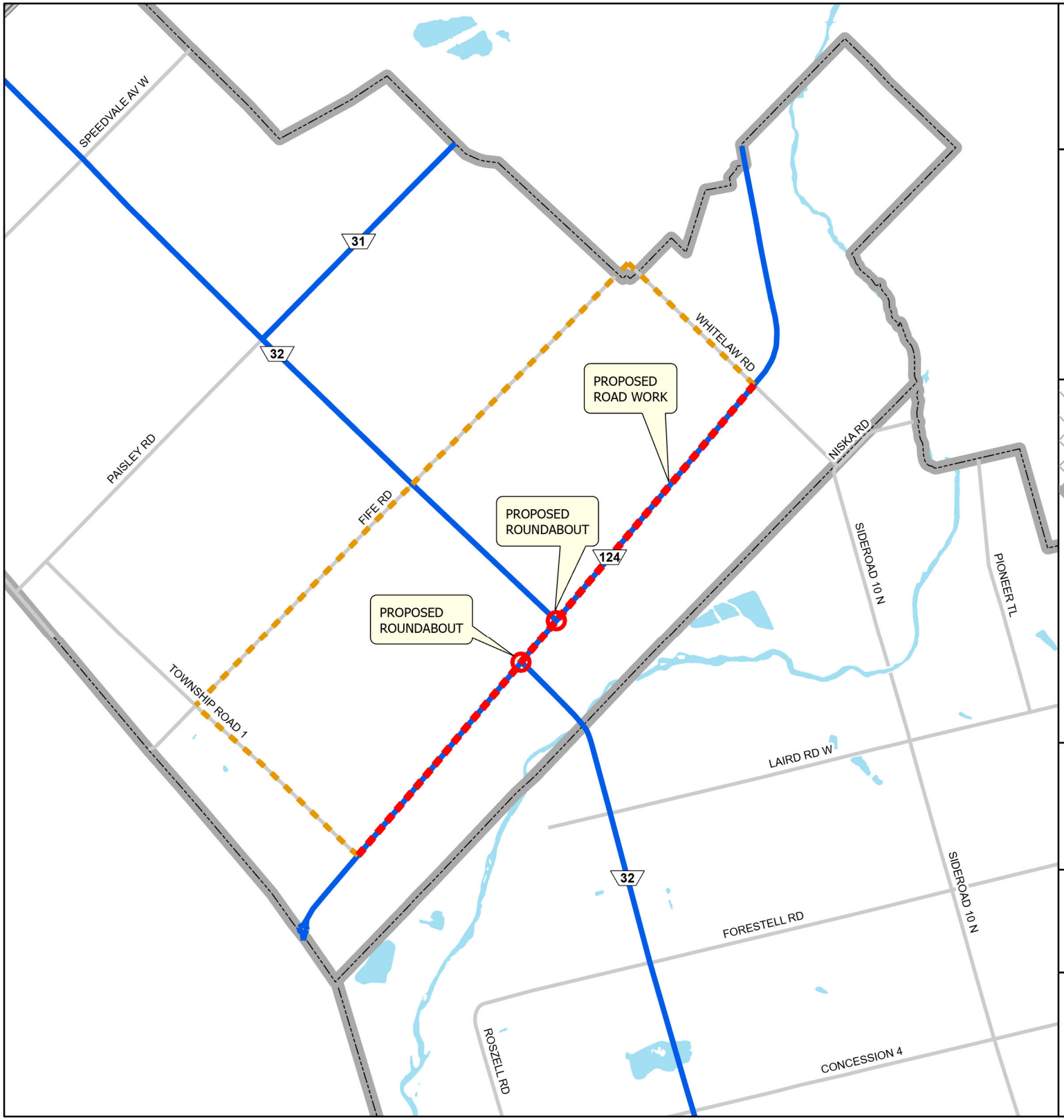
## Recommendation:

That staff be given direction to work on agreements with Guelph Eramosa Township and the City of Guelph to designate Fife Road as a detour route for Wellington Road 124 construction starting in 2026.

Respectfully submitted,

Joe de Koning, P.Eng.
Manager of Roads

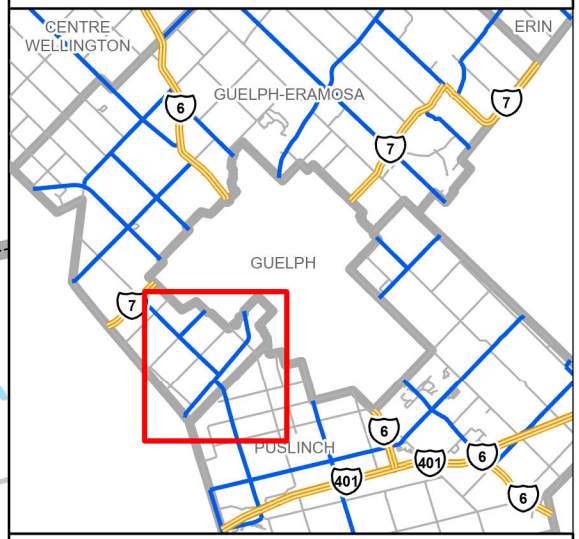
Attachment: Map




# Wellington Road 124 Construction Planning

Township of Guelph-Eramosa

- PROPOSED INTERSECTION IMPROVEMENTS
- PROPOSED ROAD IMPROVEMENTS
- PROPOSED DETOUR ROUTE
- LOCAL ROAD
- COUNTY ROAD
- HIGHWAY
- WATERBODY
- URBAN CENTRE
- MUNICIPAL BOUNDARY




**WELLINGTON COUNTY**

0 300 600 1,200 m

Scale: 1:35,000

N

Date: October 2024

Produced by: County of Wellington Roads Department

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# COUNTY OF WELLINGTON

## Committee Report

**To:** Chair and Members of the Roads Committee
**From:** Joe de Koning, Manager of Roads
**Date:** Tuesday, October 08, 2024
**Subject:** **Update County Roads - Level of Service**

---

### Background:

The County maintains a Level of Service (LOS) guideline for maintenance activities associated with our road network.

Periodically this guideline is updated to reflect changes to Minimum Maintenance Standards (MMS). The last update to the LOS guideline was 2015.

### Strategic Action Plan:

This report relates to the following objectives and priorities in the County's Strategic Action Plan:

Making the best decisions for the betterment of the Community

### Recommendation:

That County Council adopt the Update to the County Roads Level of Service guidelines as presented.

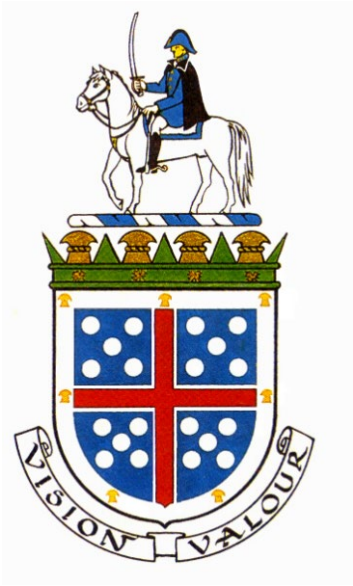
Respectfully submitted,

Joe de Koning, P.Eng.
Manager of Roads

Attachment: County LOS 2024

# COUNTY OF WELLINGTON

# LEVEL OF SERVICE




## Engineering Services-Roads Division

Adopted by County Council September 23, 2004
Updated 2024

## Table of Contents

# Level of Service (LOS)

## CLASSIFICATION OF HIGHWAYS

**Objective**

The major objectives for the CLASSIFICATION OF HIGHWAYS for the County Road network are:

- To establish appropriate levels-of service for a wide variety of County Roads
- To promote consistency throughout the County
- To ensure the appropriate allocation of resources to respond to maintenance activities

**Summary**

1. For the purpose of these LOS every highway under the jurisdiction of the County of Wellington has been classified in the Table to this section as a Class 1, Class 2, Class 3, Class 4, Class 5 or Class 6 highway, based on the speed limit applicable to it and the average daily traffic on it. *(Note most County Roads are Classified as Class 2, 3, and 4. At this time there are no Class 1, Class 5 or Class 6 roads under County jurisdiction).*

2. For the purposes of subsection (2) and the Table to this section, the average annual daily traffic on a highway or part of a highway under County jurisdiction shall be determined,

    a. By counting and averaging the daily two-way traffic on the highway or part of a highway or
    b. By estimating the average daily two-way traffic on the highway or part of the highway.
    c. The County is deemed to be aware of a fact if, in the absence of actual knowledge of the fact, circumstances are such that we ought reasonably to be aware of the fact.

# Level of Service (LOS)

Application

1. The following standard set out the LOS of repair for various classes of County Roads within the various jurisdictions in the County of Wellington.

2. The standards of repair as set out in these LOS are applicable only in respect of motor vehicles using the highway.

**TABLE**
**CLASSIFICATION OF HIGHWAYS**

| Average Daily Traffic (number of motor vehicles) | 91 - 100 km/h speed limit | 81 - 90 km/h speed limit | 71 - 80 km/h speed limit | 61 - 70 km/h speed limit | 51 - 60 km/h speed limit | 41 - 50 km/h speed limit | 1 - 40 km/h speed limit |
|---|---|---|---|---|---|---|---|
| 53,000 or more | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 23,000 - 52,999 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| 15,000 - 22,999 | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 12,000 - 14,999 | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 10,000 - 11,999 | 1 | 1 | 2 | 2 | 3 | 3 | 3 |
| 8,000 - 9,999 | 1 | 1 | 2 | 3 | 3 | 3 | 3 |
| 6,000 - 7,999 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| 5,000 - 5,999 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| 4,000 - 4,999 | 1 | 2 | 3 | 3 | 3 | 4 | 4 |
| 3,000 - 3,999 | 1 | 2 | 3 | 3 | 3 | 4 | 4 |
| 2,000 - 2,999 | 1 | 2 | 3 | 3 | 4 | 5 | 5 |
| 1,000 - 1,999 | 1 | 3 | 3 | 3 | 4 | 5 | 5 |
| 500 - 999 | 1 | 3 | 4 | 4 | 4 | 5 | 5 |
| 200 - 499 | 1 | 3 | 4 | 4 | 5 | 5 | 6 |
| 50 - 199 | 1 | 3 | 4 | 5 | 5 | 6 | 6 |
| 0 - 49 | 1 | 3 | 6 | 6 | 6 | 6 | 6 |

# Level of Service (LOS)

## BITUMINOUS AND SURFACE TREATED SURFACES

**Objective**

The major objectives for maintaining Rural and Urban BITUMINOUS AND SURFACE TREATED SURFACES are:

- To provide a smooth safe riding surface.
- To eliminate hazards to vehicular traffic.
- To protect the investment in the road surface.

**Summary**

The level-of-service for Rural and Urban BITUMINOUS AND SURFACE TREATED SURFACES shall be in accordance with the following:

1. All potholes of a size sufficient to cause damage or hazard to vehicular or pedestrian traffic shall be repaired either by filling with a temporary cold asphalt preparation or by use of a permanent patching material; i.e., asphalt or epoxy concrete. If a pothole exceeds both the surface area and the depth set out in Table 1 or 2 below as appropriate, the minimum LOS is to repair the pothole within the time set out in Table 1 or 2 after becoming aware of the fact. A pothole shall be deemed to be repaired if its surface area or depth is less than or equal to that set out in Table 1 or 2 as appropriate

# Level of Service (LOS)

**TABLE 1**
**POTHOLES ON PAVED SURFACE OF ROADWAY**

| Class of Highway | Surface Area | Depth | Time |
|---|---|---|---|
| 1 | 600 $cm^2$ | 8 cm | 4 days |
| 2 | 800 $cm^2$ | 8 cm | 4 days |
| 3 | 1000 $cm^2$ | 8 cm | 7 days |
| 4 | 1000 $cm^2$ | 8 cm | 14 days |
| 5 | 1000 $cm^2$ | 8 cm | 30 days |

**TABLE 2**
**POTHOLES ON NON-PAVED SURFACE OF ROADWAY**

| Class of Highway | Surface Area | Depth | Time |
|---|---|---|---|
| 3 | 1500 $cm^2$ | 8 cm | 7 days |
| 4 | 1500 $cm^2$ | 10 cm | 14 days |
| 5 | 1500 $cm^2$ | 12 cm | 30 days |

2. If a surface discontinuity, other than a surface discontinuity on a bridge deck, exceeds the height set out in Table 2 in this section, the minimum LOS is to repair the surface discontinuity within the time set out in the Table 3 after becoming aware of the fact.

# Level of Service (LOS)

**TABLE 3**
**SURFACE DISCONTINUITIES**

| Class of Highway | Height | Time |
|---|---|---|
| 1 | 5 cm | 2 days |
| 2 | 5 cm | 2 days |
| 3 | 5 cm | 7 days |
| 4 | 5 cm | 21 days |
| 5 | 5 cm | 21 days |

3. Crack sealing shall be carried out to seal those cracks, which will cause premature deterioration of the road surface. All major cracks appearing in newly resurfaced roads shall be filled. Severe alligatored or checked surfaces will not be crack sealed. They shall be resurfaced with hot mix asphalt or surface treated using an acceptable method consistent with the rest of the road surface. If a crack on the paved surface of a roadway is greater than 5 cm wide and 5 cm deep for a continuous distance of three metres or more, the standard is to repair the crack within the time set out in Table 4 in this section. A crack shall be deemed to be repaired if its width or depth is less than or equal to 5 cm.

**TABLE 4**
**CRACKS**

| Class of Highway | Time |
|---|---|
| 1 | 30 days |
| 2 | 30 days |
| 3 | 60 days |
| 4 | 180 days |
| 5 | 180 days |


## Level of Service (LOS)

4. Ruts or corrugations, bumps and depressions occurring on the traveled portion of the road in the wheel paths, at bridge approaches, catch basins, manholes, etc. shall be repaired through the routine road surface maintenance program. Severe bumps or depressions i.e., railway crossings, bridge expansion joints, etc. that cannot immediately be repaired shall be signed accordingly with the appropriate warning device.

5. The cause of freestanding water on the roadway shall be investigated and eliminated, repaired, or signed.

6. Broken pavement edges and raveled areas shall be repaired if the damaged area extends a significant distance onto the traveled portion such that it constitutes a hazard to vehicular traffic.

7. Loose gravel on the road surface (including paved areas designated for cyclists) shall be removed through regular manual and/or machine sweeping activities.

Where the above conditions have been identified and cannot be repaired immediately, appropriate warning devices shall be erected.

## GRAVEL SURFACES

**Objective**

The major objectives for maintaining GRAVEL SURFACES are:

- To provide a smooth, safe riding surface.
- To eliminate hazards to vehicular traffic.
- To protect the investment in the road surface.

**Summary**

# Level of Service (LOS)

The level-of-service for GRAVEL SURFACES shall be in accordance with the following:

1. The cause of soft or wet areas that move under traffic shall be eliminated or repaired either by base repair or installation of sub drainage facilities.

2. The causes of water lying on the surface or running across the surface shall be corrected.

3. A 2% crossfall will be maintained as close as practicable through the regular activity of road grading. Roads will be graded throughout the frost-free months as required; i.e., during period of thaw in wintertime or after heavy rainfall.

4. Potholes and washboard conditions shall be corrected by regular road grading.

5. Excessively dusty conditions shall be corrected through the application of an approved liquid dust palliative. Spot conditions may be corrected through the use of flake material spread either by mechanical spreader or manually. Generally liquid products are applied early in the season depending on weather conditions. Liquid products are applied as a dust control agent;

    a. Where dusty conditions cause a nuisance or present a health hazard to property owners, particularly in rural areas.
    b. Where a dusty condition is hazardous to traffic.
    c. Where there is a need to stabilize the road surface and restrict the loss of fines from the gravel.

6. Gravel shall be added to the road on a program basis or when the subbase material is beginning to show through the surface course and/or when surface deterioration constitutes a hazard to vehicular traffic.

# Level of Service (LOS)

## SHOULDERS – ASPHALT OR SURFACE TREATED

**Objective**

The major objectives for maintaining ASPHALT OR SURFACE TREATED SHOULDERS are:

- To maintain a smooth safe shoulder that is relatively free from defects.
- To safely accommodate emergency stopping of vehicles.
- To provide a safe location for buggy traffic and cyclists.
- To provide lateral support of base and surface courses.
- To control dusty conditions and rutting at the pavement edge.
- To improve drainage from the roadway.
- To prevent shoulder rutting and erosion.

**Summary**

The level-of-service for ASPHALT OR SURFACE TREATED SHOULDERS shall be in accordance with the following:

1. A uniform crossfall shall be maintained on all shoulders (see LOS entitled Table of Correct Shoulder Crossfall).

2. Pavement and shoulder edges shall be maintained flush.

3. The cause of water ponding shall be eliminated or repaired.

4. Washouts and shoulder undermining caused by heavy rainfall shall be scheduled for repair as soon as practicable after the storm.

# Level of Service (LOS)

5. At serious washouts constituting a hazard, appropriate warning signs shall be erected if repairs cannot be made immediately.

6. Shoulder edge failures, breaks and raveled areas shall be repaired through routine shoulder/surface maintenance activities.

7. If a pothole in a shoulder exceeds both the surface area and depth set out in Table 1 in this section, the minimum LOS is to repair the pothole within the time set out in Table 1 after becoming aware of the fact.

   A pothole shall be deemed to be repaired if its surface area or depth is less than or equal to that set out in Table 1 below.

**TABLE 1**
**POTHOLES ON PAVED OR NON-PAVED SURFACE OF SHOULDER**

| Class of Highway | Surface Area | Depth | Time |
|---|---|---|---|
| 1 | 1500 $cm^2$ | 8 cm | 7 days |
| 2 | 1500 $cm^2$ | 8 cm | 7 days |
| 3 | 1500 $cm^2$ | 8 cm | 14 days |
| 4 | 1500 $cm^2$ | 10 cm | 30 days |
| 5 | 1500 $cm^2$ | 12 cm | 60 days |

## GRAVEL SHOULDERS

**Objective**

The major objectives for maintaining GRAVEL SHOULDERS are:

# Level of Service (LOS)

- To maintain a smooth, safe shoulder.
- To safely accommodate emergency stopping of vehicles.
- To provide lateral support of base and surface courses.

**Summary**

The level-of-service for GRAVEL SHOULDERS shall be in accordance with the following:

1. Persistently soft or wet areas of shoulder shall be repaired.

2. Correct crossfall shall be maintained on all shoulders.

3. Shoulder drop-off, ruts and washed areas shall be corrected by the continuous activity of shoulder grading throughout the frost-free months.

   If a shoulder drop-off is deeper, for a continuous distance of 20 metres or more, than the depth set out in Table 1 in this section, the minimum standard is to repair the shoulder drop-off within the time set out in the Table after becoming aware of the fact.

   A shoulder drop-off shall be deemed to be repaired if its depth is less than or equal to that set out in the Table.

   In this section, “shoulder drop-off” means the vertical differential, where the paved surface of the roadway is higher than the surface of the shoulder, between the paved surface of the roadway and the paved or non-paved surface of the shoulder.

# Level of Service (LOS)

**TABLE 1**
**SHOULDER DROP-OFFS**

| Class of Highway | Time |
|---|---|
| 1 | 4 days |
| 2 | 4 days |
| 3 | 7 days |
| 4 | 14 days |
| 5 | 30 days |

4. Shoulders shall be graded as required to achieve the above LOS beginning the first week in April and continuing until freeze-up (generally mid-November).

5. Gravel windrow of pavement edge, outside shoulder edge or under guide rail will be eliminated.

6. Excessively dusty conditions shall be corrected by the application of approved liquid or flake dust control products at a rate suitable for the conditions and type of material used. Dust control agents shall be applied where:

    a. Dusty conditions cause a nuisance or present a health hazard to property owners.
    b. Where dusty conditions present a hazard to traffic.
    c. In front of commercial establishments, i.e., truck stops, implement dealers, etc.
    d. At entrances to settlement areas.

7. Washouts and shoulder undermining caused by heavy rainfall shall be scheduled for repair as soon as practicable after the storm. At serious washouts constituting a

# Level of Service (LOS)

hazard, appropriate warning signs shall be erected until such time as repairs can be made.

8. Gravel shall be added to shoulders on a program basis or when grading or windrow reclamation cannot bring back enough gravel to maintain the proper crossfall.

## TABLES OF CORRECT SHOULDER CROSSFALL

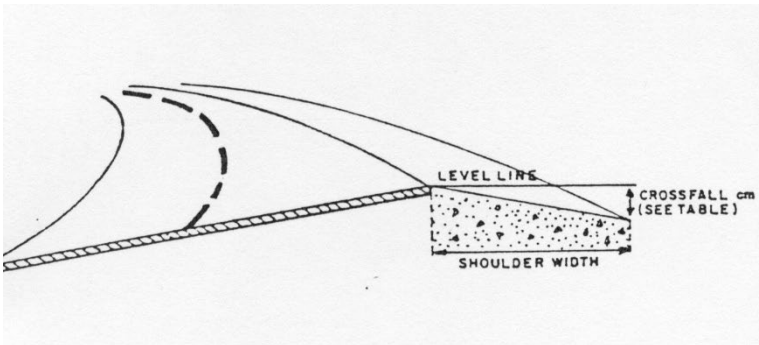



TABLE OF SHOULDER CROSSFALL

| SHOULDER WIDTH | ALLOWABLE ON OUTSIDE SHOULDER OF CURVES | | |
|---|---|---|---|
| | MIN. | STD. | MAX. |
| 1.2m | 3cm | 4cm | 5cm |
| 1.8m | 3cm | 5cm | 8cm |
| 2.4m | 5cm | 8cm | 10cm |
| 3m | 8cm | 10cm | 13cm |

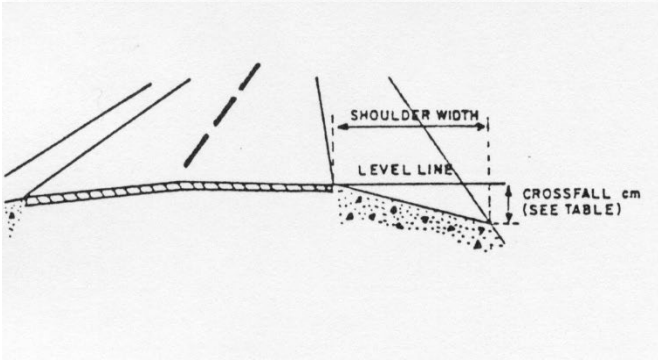
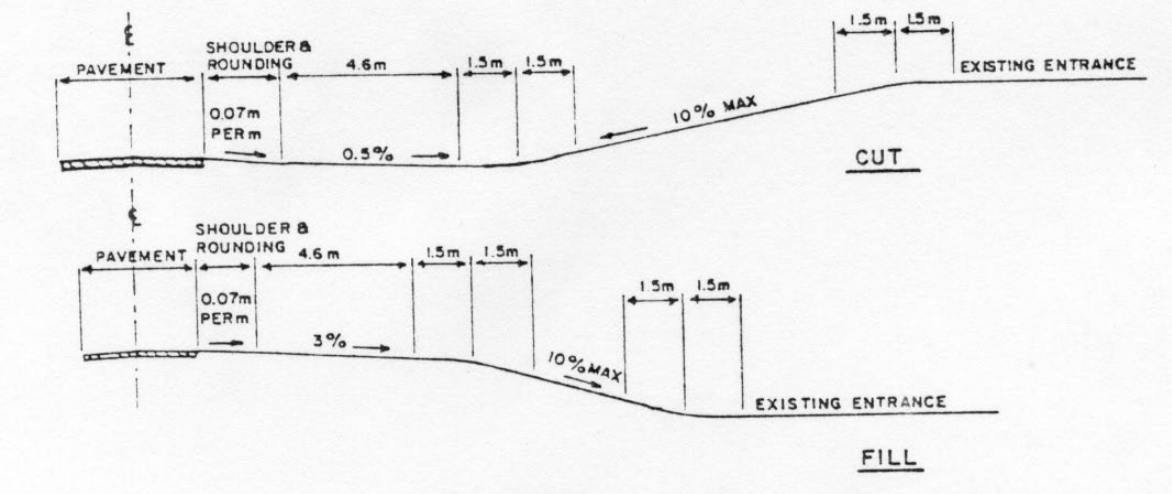



TABLE OF SHOULDER CROSSFALL

| SHOULDER WIDTH | ALLOWABLE TOTAL CROSSFALL ON STRAIGHT ROAD | | |
|---|---|---|---|
| | MIN. | STD. | MAX. |
| 1.2 m | 5cm | 8cm | 10cm |
| 1.8m | 8cm | 11cm | 15cm |
| 2.4m | 10cm | 15cm | 20cm |
| 3m | 13cm | 19cm | 25cm |

# Level of Service (LOS)

**CORRECT CROSSFALL AT DRIVEWAY ENTRANCES**




## DITCHES

**Objective**

The major objectives for DITCH maintenance are:

- To maintain the drainage system so as to control and remove surface water within the right-of-way limits.
- To prevent erosion of shoulders and side slopes.
- To maintain a stable road base.
- To mitigate the damage to fish habitats downstream.

**Summary**

The level-of-service for DITCH maintenance shall be in accordance with the following:

1. Obstructions in the flow line shall be removed.


## Level of Service (LOS)

2. The Area supervisor or their designate under the regular Road Patrol activity shall regularly inspect ditches.

3. Ditches shall be cleaned of debris and vegetation as required to ensure free flow of water.

4. Ditch grade lines shall have a uniform fall to prevent localized ponding.

5. Vegetation growing in the ditch line constituting an obstruction to the free flow of water shall be cut or removed as necessary.

6. Side slopes shall be as uniform as practicable and corrected where necessary.

7. Eroded slopes shall be corrected and the cause of erosion shall be eliminated wherever practicable.

8. Ditches shall be filled where effective drainage has been accomplished by other means.

## CULVERTS

**Objectives**

The major objectives for CULVERT MAINTENANCE are:

- To keep culverts clean – free from debris – and functioning properly.
- To ensure the flow of surface water running in natural streams, collected on the high side of the right-of-way, or running down the ditch line, under roads, streets or driveway entrances.

# Level of Service (LOS)

**Summary**

The level-of-service for CULVERT MAINTENANCE shall be in accordance with the following:

1. Obstructions restricting the flow of water through culverts shall be removed.

2. Culverts shall be regularly inspected, through the regular Road Patrol activity, and cleaned of debris if constricting flow. In particular, this activity shall be performed during October and November prior to the winter season, and prior to and during the spring runoff.

3. Culverts shall, in addition, be inspected after heavy storms or periods of high run off, and corrective measures taken if necessary.

4. During storms and floods, critical areas shall be patrolled and culvert inlets kept clear.

5. Badly worn, broken or damaged culverts shall be repaired or replaced as soon as practicable.

6. Culvert aprons and head walls which are broken shall be repaired.

7. Damaged embankments at culvert inlets or outlets shall be repaired.

8. Culverts that are not required because proper drainage has been achieved by other means shall be removed or buried at the discretion of the Engineer.
9. Supervisory personnel performing regular patrols shall notify the proper authorities if they observe unauthorized culvert installation on municipal property.

10. Application shall be made by the property owner to the Roads Division of the County Engineering Services Department, if an entrance culvert is desired where none presently exists.

# Level of Service (LOS)

11. Installation of new culverts if approved shall then be made by the owner's contractor under the supervision of the Area Supervisor.

12. The property owner is responsible for the cost of installation.

13. Subsequent maintenance of the culvert shall be the responsibility of the County.

14. An entrance permit must be obtained before any entrance can be constructed on a County right-of-way.

## STORM SEWER CLEANING / REPAIR

**Objective**

The major objectives for the CLEANING AND REPAIR OF STORM SEWERS are:

- To prevent public health hazards and inconvenience through interruptions in the service for which the sewer system is provided.
- To protect the public investment in the sewer system by maintaining maximum capacities and by extending the useful life of the system.
- To prevent unnecessary damage to public and private property and pollution of the environment.

**Summary**

The level-of-service for the CLEANING AND REPAIR OF STORM SEWERS shall be in accordance with the following:

<u>Cleaning</u>

# Level of Service (LOS)

1. Excessive accumulations of silt in storm sewers shall be removed.

2. Sewers shall be cleaned on an annual program basis and based on local conditions and inspection findings.

3. Sewers shall be regularly inspected for needed repairs or cleaning on an annual program basis. The extent of the maintenance program in any one year will depend on programmed construction activities and budgetary considerations.

4. Non-programmed cleaning shall be undertaken using an appropriate method, as required, to alleviate local problem conditions.

5. Storm sewer outfalls shall be inspected and cleaned each year.

Repair

1. Pipes severely cracked or collapsed shall be replaced.

2. Pipes cracked to an extent permitting excessive infiltration or exfiltration which may cause voids around the pipe shall be replaced or repaired.

3. Pipes having step joints of more than 25mm shall be assessed to their need for immediate replacement or scheduled for replacement in conjunction with road reconstruction.

4. Connections protruding into the sewer main which restrict the capacity of the pipe or prevent effective inspection shall be corrected to form a smooth uninterrupted surface within the main sewer pipe.

5. Outfalls shall be repaired when necessary as reported from routine visual inspections.

# Level of Service (LOS)

## MANHOLE REPAIR

**Objective**

The major objectives for REPAIRING MANHOLES are:

- To protect the public investment in the sewer systems by maintaining maximum capacities and by extending the useful life of the sewer systems.
- To provide safe, convenient access to the sewer systems to facilitate servicing, cleaning, measuring flows and testing effluents.
- To maintain the manholes in a structurally sound condition to permit safe passage of traffic with a minimum of interference.

**Summary**

The level-of-service for MANHOLE REPAIRS shall be in accordance with the following:

1. All storm sewer manholes shall be inspected once per year for structural adequacy, height of manhole lid and frame, steps, benching, channels, and flow. All defects should be noted and scheduled for repair either on program or immediate basis.

2. Castings protruding 5 cm or more above the traveled portion of the road shall be corrected.

3. Castings depressed to a depth that may constitute a hazard to vehicular traffic shall be repaired.

4. Loose and/or noisy lids shall be corrected.

5. Manhole steps that are broken, deteriorated or otherwise in an unsafe condition shall be replaced.

6. Manhole walls, lids, castings, etc. shall be maintained in a structurally sound condition.

7. Excessive infiltration or exfiltration in manholes shall be corrected as quickly as practicable.

8. Benching and channels shall be smooth throughout the manhole.

9. All repairs or alterations to manholes shall be in accordance with the MTO OPSS as applicable.

## CATCHBASIN CLEANING AND REPAIR

**Objective**

The major objectives for the maintenance of CATCHBASINS are:

- To clean out basins before their sump capacity has been exceeded thereby allowing dirt and debris to collect in the storm sewer mains.
- To periodically clean catch basins and inlets so that gratings, openings, traps and outlets are kept free from obstructions which might interfere with the free flow of runoff.
- To repair basins as required and adjust basins which are causing problems on the road surface.
- Private drains will not generally be allowed on the County ROW. If they are present they will be the responsibility of the owner of the private drain to keep the drain in repair.

**Summary**

# Level of Service (LOS)

The level-of-service for CATCHBASIN CLEANING AND REPAIRS shall be in accordance with the following:

Cleaning

1. All catch basins shall be inspected yearly and cleaned where this inspection indicates a need.

2. It may be necessary in local areas to clean catch basins and inlets more often due to:

    a. Restricted sump capacities.
    b. Amount of dirt and debris reaching the road surface.
    c. Planned frequency of road cleaning.

3. During or after a heavy rainfall, problem basins shall be checked.

4. Repairs to basins shall be carried out when necessary.

5. Catch basins which have deteriorated to the extent that they restrict the free flow of water and endanger the safe flow of traffic shall be rebuilt to current standards.

6. Catch basins shall be checked before the winter season for interference with snow plowing operations.

Repairs

1. Catch basins shall be repaired whenever there are loose bricks, shifted frames or wherever significant structural failure has occurred.

2. Castings that are cracked or broken shall be repaired or replaced.

# Level of Service (LOS)

## CURBS AND GUTTERS

**Objectives**

The major objectives for CURB AND GUTTER MAINTENANCE are:

- To facilitate the removal of surface water from the wearing surface.
- To prevent water from spilling over and eroding side slopes.

**Summary**

The level-of-service for CURBS AND GUTTERS shall be in accordance with the following:

General

1. A curb and gutter repair program shall be maintained annually to fix spalled areas and broken heaved or depressed sections which may interfere with drainage, and preserve the investment in the road.

Concrete and Asphalt Curb and Gutter

1. Shall be maintained in a condition such that it continues to serve its intended purpose.

2. Shall be inspected by windshield inspection yearly. Sections warranting repair will be considered for inclusion in annual maintenance/repair program.

3. Long sections of damaged or deteriorated curb and gutter shall be scheduled for replacement in conjunction with the road reconstruction program.

# Level of Service (LOS)

## BRIDGE MAINTENANCE

**Objective**

The major objectives for BRIDGE MAINTENANCE are:

- To provide continuing adequate levels of safety.
- To preserve the investment in existing bridge structures.
- To upgrade and improve existing facilities as may be economically practical through minor maintenance work.

**Summary**

The level-of-service BRIDGE MAINTENANCE shall be in accordance with the following:

1. Bridges shall be inspected visually with emphasis on structural components once each year.

2. Cleaning and flushing of expansion joints and bearings, bridge decks, sidewalks, parapet walls and railings shall be carried out on all bridges annually in the spring after winter operations are completed.

3. Bridge drains shall be inspected at least once per year and cleaned if required.

4. Bridge seats, rollers, and other expansion elements that do not function properly shall be repaired.

5. If a surface discontinuity on a bridge deck exceeds 5 cm, the minimum LOS is to deploy resources as soon as practicable after becoming aware of the fact to repair the surface discontinuity on the bridge deck.

# Level of Service (LOS)

6. Exposed metal surfaces on structures shall be prevented from corroding by treatment in an appropriate manner.

7. Spalled areas or any other deterioration where reinforcing steel is exposed shall be repaired in an approved manner.

   If a bridge deck spall exceeds both the surface area and depth set out in the Table to this section, the minimum LOS is to repair the bridge deck spall within the time set out in the Table after becoming aware of the fact.

   A bridge deck spall shall be deemed to be repaired if its surface area or depth is less than or equal to that set out in the Table below.

   In this section, "bridge deck spall" means a cavity left by one or more fragments detaching from the paved surface of the roadway or shoulder of a bridge.

**TABLE**
**BRIDGE DECK SPALLS**

| Class of Highway | Surface Area | Depth | Time |
|---|---|---|---|
| 1 | 600 $cm^2$ | 8 cm | 4 days |
| 2 | 800 $cm^2$ | 8 cm | 4 days |
| 3 | 1,000 $cm^2$ | 8 cm | 7 days |
| 4 | 1,000 $cm^2$ | 8 cm | 7 days |
| 5 | 1,000 $cm^2$ | 8 cm | 7 days |

8. Pilings which show deterioration caused by erosion or corrosion shall be repaired or replaced.

# Level of Service (LOS)

9. Damage to structures resulting from traffic accidents or deterioration shall be repaired and/or damaged sections replaced.

## UTILITY CROSSINGS

**Objective**

The major objective for UTILITY CROSSINGS is:

- To maintain the base and surface of the County road and where necessary repair the same if an open cut is required.

**Summary**

The level-of-service for UTILITY CROSSING shall be in accordance with the following:

1. Utility shall whenever possible installed by directional boring to eliminate cutting the road surface.

2. If utility cuts are necessary, they shall be backfilled and temporary repairs made to the street surface by the utility company making the utility repair or installation as per current County Roads Occupancy Permit.

3. Minimum depth of granular subbase, base and asphalt surface shall be as follows:

| | | | |
|---|---|---|---|
| a. | Subbase | 300 mm | Granular B |
| b. | Base | 150 mm | Granular A |
| c. | Surface | 75 mm | Hot mix asphalt |

# Level of Service (LOS)

4. Cost of the backfill and temporary surface patch up to one year after the installation or until the surface is permanently repaired shall be the responsibility of the utility company.

5. The cost of permanent surface patch shall be the responsibility of the utility company.

## STREET CLEANING

**Objective**

The major objectives for STREET CLEANING are:

- To prevent annoyance to general public arising from road dirt and dust.
- To prevent injuries to pedestrians and damage to property and vehicles caused by loose objects being thrown up by traffic.
- To promote safety by removing debris which could cause a hazard for cyclists or vehicular traffic.
- To prevent clogging of storm sewers.
- To reduce health hazards caused by pollutants and chemical wastes in road dirt.
- To enhance the appearance of the community.

**Summary**

The level-of-service for STREET CLEANING shall be in accordance with the following:

<u>Rural Intersections</u>

1. Generally sweeping will be done by County forces at rural intersections in the spring of each year and from time to time to minimize loose gravel on road surface.

# Level of Service (LOS)

Settlement Areas

1. The County will contract the street sweeping to a private contractor to sweep Curb and Gutters and intersections of roads under the jurisdiction of the County as part of the spring cleanup.

Urban Areas

1. The County will contract the street sweeping of County Roads to private contractors or the local municipality, if they have street sweeping equipment whichever is appropriate.
2. The County will pay one half the cost of such sweeping with the municipality paying the other one half.
3. The sweeping will be done in early spring at the first opportunity after winter operations have ceased.
4. If possible or practicable, the sweeping operation should take place prior to or after normal business hours of the local community to minimize dust, noise, and operational conflicts with pedestrians and vehicles.

Special Events

As required for special functions, i.e., parades, community festivals, etc.

## DEBRIS PICKUP

**Objective**

The major objectives for DEBRIS PICKUP are:

- To keep the roadside and traveled surface in a clean and safe condition by removing unsightly and hazardous objects.

# Level of Service (LOS)

- To allow for maximum productivity in grass mowing.
- To help ensure proper operation of drainage courses.

**Summary**

The level-of-service for DEBRIS PICKUP shall be in accordance with the following:

1. Hazardous debris such as vehicle related debris, cans, bottles, paper, animal carcasses, branches and other trash on the roadside or within the median shall be removed as required.

   If there is debris on a roadway, the minimum LOS is to deploy resources, as soon as practicable after becoming aware of the fact, to remove the debris. "Debris" means any material or object on a roadway that; "is not an integral part of the roadway or has not been intentionally placed on the roadway by a municipality" or "is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle".

2. Large stones or boulders in the ditch or on the shoulder shall be removed.

3. Debris shall not be allowed to disrupt mowing operations or obstruct drainage ways.

4. Debris shall not be allowed to accumulate on any road in order to discourage dumping.

5. All roadsides shall have hazardous debris picked up at least once each year in the Spring before mowing operations begin.

6. Litter is not considered as hazardous debris and is not routinely picked up by County staff. The County encourages membership in the County's Adopt-A-Road program. This is a public service program established in 1993 for volunteers to enhance the litter collection activities by picking up litter along County road right-of ways. It is a program in which environmentally conscious citizens, community and civic organizations,

private businesses and industry can contribute to a cleaner and more beautiful road system.

## GRASS CONTROL

**Objective**

The major objectives for GRASS CONTROL are:

- To aid in the control of noxious weeds and brush.
- To improve roadside drainage.
- To aid in controlling drifting of snow.
- To improve visibility at intersections.
- To improve the general appearance of the roadside.

**Summary**

The level-of-service for GRASS CONTROL shall be in accordance with the following:

Rural

1. Cutting shall be scheduled to begin on or around the first week in June and shall continue until all the roads have received the first cut. The grass at the beginning of this round should be approximately 300 mm high at the shoulder edge and will be cut to the lowest height that an industrial mower can manage (generally 75mm – 100mm).

2. A second cut will be done on approaches to bridges and problem areas where appropriate.

3. Generally, intersections will be cut to the right-of-way to improve visibility.

# Level of Service (LOS)

Urban

1. Cut full right-of-way (where practicable) at all County approaches to Settlement Areas.

2. The County will not cut within urban areas. The local municipality will undertake this activity.

NOTE: It may be necessary in high Wild Carrot and Milkweed areas to spot mow later on in the year. This touchup or cleanup round shall only take place after all roads have received their first cut.

## WEED, BRUSH, AND TREE CONTROL

**Objective**

The major objectives of WEED, BRUSH, AND TREE CONTROL are:

- To prevent the spread of noxious weeds.
- To maintain adequate sightlines at intersections.
- To aid in the control of drifting snow.
- To generally improve the appearance of the roadway and to preserve as far as practicable the natural state of the surroundings.
- To eliminate the hazard of dead trees or limbs falling on the roadway.

**Summary**

The level-of-service for WEED, BRUSH, AND TREE CONTROL shall be in accordance with the following:

# Level of Service (LOS)

Weed Control

1. Noxious weed patches shall be identified and eliminated by either cutting or spraying before they can mature or spread to adjacent properties.

2. Weeds and brush shall be eliminated using mechanical weed trimmers under guide rails, at structures or headwalls, rip rap under bridges, at culvert or storm sewer outlets, on traffic islands and medians, around sign posts and adjacent to noise walls and subdivision fencing.
3. Vegetation obscuring sight distance to traffic signals and signs, across the inside of curves, and at intersections shall be trimmed.

4. All weed spraying shall be carried out by a qualified Weed Control Company in accordance with MOE guidelines spraying half of the County one year and the other half the following year.

Brush Control

1. Brush growth within the right-of-way that restricts drainage and sight distances or contributes to ice and snow formation on or near the traveled surface shall be removed.

Trees

1. Dangerous trees on the right-of-way shall be removed.

2. Dead trees beyond the limits of the right-of way, or unsound limbs that may fall on or across the roadway shall be removed. Trees located outside of the right-of-way may be removed if, in the opinion of the County, the tree or branches pose a danger to the health and safety of any person using the roadway. A dangerous tree or branch may be removed immediately and without notice to the owner of the land upon which the tree

is located if, in the opinion of the County, it poses an immediate danger to the health and safety of any person using the roadway. See Section 62 and 62.1 of the Municipal Act.

3. If a resident refuses to allow us to cut a dangerous tree we shall ask them to sign a Tree Cutting Release Agreement which requires them to acknowledge that we have informed them of the potential danger in not correcting the problem and requires them to release and save harmless the County from legal action.

4. Stumps should be removed in the spring following the date of the tree removal. They shall be cut below the ground line where practicable or flush with the ground otherwise.

5. New trees shall be planted on a two-for-one basis wherever a tree is removed so long as their location does not present a hazard or contribute to snow drifting.

6. Trees obscuring traffic signals and signs or the view across the inside of curves, at intersecting roads, or at road approaches shall be trimmed or removed.

## PAVEMENT MARKINGS

**Objective**

The major objectives for PAVEMENT MARKINGS are:

- To convey information to motorists without diverting their attention from the roadway.
- To regulate, warn, guide, and/or channelize traffic on the County Road system.
- To supplement the regulations or warnings of other traffic control devices such as traffic signs and signals.
- To aid in the safe and orderly flow of vehicular traffic, pedestrian traffic and cyclists on the County Road system.

# Level of Service (LOS)

**Summary**

The level-of-service for PAVEMENT MARKINGS shall be in accordance with the following:

1. The application for those items listed below will be once every year on rural County Roads by a qualified Contactor and monitored by a supervisor who will undertake quality control tests as necessary. The Contractor will be required to do further application if necessary on heavily traveled roads. Note: Items below marked with an * are generally done by County forces once per year only, except at heavily traveled intersections when a second application may be necessary.

    a. Directional dividing lines and lane lines.
    b. Approaches to signalized intersections and interchanges.
    c. Stop bars.*
    d. Crosswalk lines.*
    e. Railway crossings.*
    f. School crossings.*
    g. Pedestrian crossover markings.*
    h. Edge line where pavement width permits

2. The County is not responsible for painting parking stalls or other similar markings on any County Road. This will be the responsibility of the appropriate Local municipality.

3. On County Roads where reconstruction, repairing, resurfacing or extensive patching or crack sealing is being carried out the markings will be placed or replaced as soon as practicable after the final surface is laid. However, if any delay is anticipated between the laying of initial and final surfaces, such that the safe movement of traffic is affected, pavement markings may be placed on the initial surface.

4. These markings will be repainted at least once before the following winter season if required.

5. All pavement markings on the County Road system will be monitored regularly to determine their adequacy, appropriateness and effectiveness.

## TRAFFIC CONTROL SIGNALS AND FLASHING BEACONS

**Objective**

The major objectives for TRAFFIC CONTROL SIGNALS are:

- To alternate vehicular and pedestrian right-of-way at intersections and mid-block locations.
- To maximize intersection efficiency in terms of delay, hazards.
- To aid in the safe and orderly flow of traffic.

The major objectives for FLASHING BEACONS are:

- To warn motorists of hazardous locations.
- To supplement other traffic control devices such as traffic control signs and pavement markings.

**Summary**

The level-of-service for maintaining TRAFFIC CONTROL SIGNALS AND BEACONS shall be in accordance with the following:

1. Forces will be deployed as soon as is practicable after becoming aware of any of the following defects to repair or replace the defective components:


## Level of Service (LOS)

a. One or more displays show conflicting signal indications.
b. The angle of a traffic control signal or pedestrian control indication has been changed in such a way that the traffic or pedestrian facing it does not have clear visibility of the information conveyed or that it conveys confusing information to traffic or pedestrians facing other directions.
c. A phase required allowing a pedestrian or vehicle to safely travel through an intersection fails to occur.
d. There are phase or cycle timing errors interfering with the ability of a pedestrian or vehicle to safely travel through the intersection.
e. There is a power failure in the traffic control signal system.
f. The traffic control signal cabinet has been displaced from its proper position.
g. There is a failure of any of the traffic control signal support structures.
h. A signal lamp or pedestrian control indication is not functioning.
i. Signals are flashing when flashing mode is not part of the normal signal operation.
j. Any damage occurs to the traffic control signal equipment which impairs the visibility of the signals, constitutes a hazard, or impairs the structural adequacy of the supporting equipment.
k. Any failure of beacons on the County Road system.

2. The following traffic control system sub-systems shall be inspected, tested and maintained every twelve months:

a. The display sub-system, consisting of traffic signal and pedestrian crossing heads, physical support structures and support cables.
b. The traffic control sub-system; including the traffic control signal cabinet and internal devices such as timer, detection devices, and associated hardware, but excluding conflict monitors.
c. The external detection sub-system consisting of detection sensors for all vehicles, including emergency and railway vehicles and pedestrian push-buttons.


## Level of Service (LOS)

3. Conflict monitoring shall be inspected, tested and maintained every five to seven months and at least twice per year.

## LUMINAIRES

**Objective**

The major objectives for LUMINAIRES are:

- To ensure street lights are inspected regularly and functioning as required.
- To ensure that street lighting is adequate and effective.
- To aid in the flow of traffic by providing visibility for motorists.

**Summary**

1. In this section,

   "conventional illumination" means lighting, other than high mast illumination, where there are one or more luminaries per pole;

   "high mast illumination" means lighting where there are three or more luminaries per pole and the height of the pole exceeds 20 metres;

   "luminaries" means a complete lighting unit consisting of,

   a. a lamp, and

   b. parts designed to distribute the light, to position or protect the lamp and to connect the lamp to the power supply.

# Level of Service (LOS)

2. The standard for the frequency of inspecting all luminaires to check to see that they are functioning is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection.

3. For conventional illumination, if three or more consecutive luminaries on a highway are not functioning, the LOS is to repair the luminaries within the time set out in the Table to this section after becoming aware of the fact.

4. For conventional illumination and high mast illumination, if 30 per cent or more of the luminaries on any kilometre of highway are not functioning, the LOS is to repair the luminaries within the time set out in the Table to this section after becoming aware of the fact.

**TABLE**
**LUMINAIRES**

| Class of Highway | Time |
|---|---|
| 1 | 7 days |
| 2 | 7 days |
| 3 | 14 days |
| 4 | 14 days |
| 5 | 14 days |

5. Despite subsection (3), for high mast illumination, if all of the luminaries on consecutive poles are not functioning, the LOS is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaries.

6. Luminaries shall be deemed to be repaired,

    a. for the purpose of subsection (1), if the number of non-functioning consecutive luminaries does not exceed two;


# Level of Service (LOS)

b. for the purpose of subsection (2), if more than 70 per cent of luminaries on any kilometre of highway are functioning;

c. for the purpose of subsection (3), if one or more of the luminaries on consecutive poles are functioning;

d. for the purpose of subsection (4), if more than 50 per cent of luminaries on any kilometre of highway are functioning.

## TRAFFIC CONTROL SIGNS

**Objective**

The major objectives for the maintenance of TRAFFIC CONTROL SIGNS are:

- To regulate, warn, guide, channelize, and/or provide information necessary for route selection.
- To aid in the safe and orderly flow of vehicle and pedestrian traffic on the County Road system.
- To supplement the regulations or warnings of other traffic control devices such as traffic signals and pavement markings.
- To implement the provision of the HTA.

**Summary**

The level-of-service for TRAFFIC CONTROL SIGN PLACEMENT shall be in accordance with the following:

1. Traffic control signs will be erected on all new County Roads before they are opened to traffic.

# Level of Service (LOS)

2. Additional new traffic control signs necessitated by amendments to the County Traffic By-laws will be erected as soon as practicable after the by-law becomes effective.

The level-of-service for TRAFFIC CONTROL SIGN MAINTENANCE shall be in accordance with the following:

1. If any sign of a type listed below is illegible, improperly oriented or missing, forces shall be deployed as soon as practicable after becoming aware of the fact to repair or replace the sign;

- Stop
- Stop Ahead
- Yield
- Yield Ahead
- Yield Ahead – New
- Load Restricted Bridge
- Low Bridge
- Low Bridge Ahead
- Wrong Way
- Curve Sign with Advisory Speed Tab
- Do Not Enter
- Checkerboard
- Traffic Signal Ahead – New
- Stop Ahead – New
- One Way
- School Zone Speed Limit
- Two-way Traffic Ahead

2. If a regulatory or warning sign other than a sign listed above is illegible, improperly oriented or missing, the minimum LOS is to repair or replace the sign within the time set out in Table 1 to this section after becoming aware of the fact.

# Level of Service (LOS)

**TABLE 1**
**REGULATORY AND WARNING SIGNS**

| Class of Highway | Time |
|---|---|
| 1 | 7 days |
| 2 | 14 days |
| 3 | 21 days |
| 4 | 30 days |
| 5 | 30 days |

3. All damaged, missing, defaced or illegible detour/construction traffic control signs shall be replaced or repaired immediately upon notification.

4. All traffic signs not mentioned above, which are damaged, defaced, missing or illegible shall be replaced or repaired as soon as practicable during normal working hours.

5. All traffic control signs erected on the County Road system shall be in accordance with the requirements of the Highway Traffic Act and the Ontario Traffic Manual and shall be checked to see they meet the retro-reflectivity requirements.

6. All traffic control signs on the County road system shall be monitored regularly to determine their appropriateness, effectiveness, and condition.

   Note: In this section,

   "regulatory sign" has the same meaning as in the *Ontario Traffic Manual Book 5* published July 2001 by the Ministry of Transportation.

   "warning sign" has the same meaning as in the *Ontario Traffic Manual Book 6* published July 2001 by the Ministry of Transportation.

# Level of Service (LOS)

## GUIDE RAIL/GUIDE POSTS

**Objective**

The major objectives for GUIDE RAIL/GUIDE POST MAINTENANCE are as follows:

- To effectively serve as guides to vehicular traffic.
- To define sharp curves.
- To safeguard traffic.

**Summary**

The level-of-service for GUIDE RAIL/GUIDE POST MAINTENANCE shall be in accordance with the following:

General

Guide Rail or Guide posts and cable are installed on those sections of the County Road system where vehicles accidentally leaving the highway might be subjected to considerable danger. Generally, such points are fills on steep grades, long through fills, or fills on sharp curvatures. Their need is also recognized at abrupt changes in shoulder width and at approaches to structures.

Steel Beam Guide Rail

1. Steel beam guide rail shall be installed as per applicable Ministry of Transportation OPSS standards.

2. All steel beam sections shall be inspected as part of the regular road patrol activity and any defects shall be noted and scheduled for repair.


## Level of Service (LOS)

3. New steel beam sections shall be installed on a program basis or in conjunction with road or structure reconstruction projects.

Cable Guide Rail

1. Cable guide rail shall be installed as per applicable Ministry of Transportation OPSS.

2. Cable guide rail shall be installed on a program basis or in conjunction with road reconstruction projects.

3. Cable guide rail sections shall be inspected as part of the regular road patrol activity and any broken or damaged sections scheduled for repair.

In winter months

4. Snow shall be plowed or blown away from the front of the guide rail systems so as to eliminate the potential for ramping by errant vehicles and also to ensure the systems work as designed.

5. Snow shall be removed from the edge of concrete barrier walls in accordance with the approved response times for snow removal as set out for the particular road classification.

## WEATHER MONITORING

**Objective**

The main objective of WEATHER MONITORING is to assist our operation by giving us advance notice of forecasted weather

# Level of Service (LOS)

**Summary**

The level of service for WEATHER MONITORING shall be in accordance to the following:

1. From October 1 to April 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift or three times per calendar day, whichever is more frequent, at intervals determined by the municipality. O. Reg. 47/13, s. 3.

2. From May 1 to September 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day. O. Reg. 47/13, s. 3.

## WINTER OPERATIONS

**Objective**

The major objectives for WINTER OPERATIONS are:

- To reduce the hazards of icy/snow covered road conditions to the community.
- To comply with legislation applicable with winter maintenance.
- To reduce economic losses to the community and industry caused delays to the community during icy/snow covered road conditions.
- To facilitate the movement of emergency vehicles during the winter weather conditions.
- To reduce the impacts to the environment and the drinking water supply through the proper storage, use and disposal of road salt and associated deicing/anti-icing chemicals.
- To maintain safe, passable school bus routes.
- To maintain safe, passable routes for buggies and cyclists.

# Level of Service (LOS)

- To maintain routes to Winter recreation areas.

**Summary**

The level-of-service for WINTER OPERATIONS shall be in accordance with the following:

General

1. A 24-hour emergency answering/dispatch service shall be maintained November to April each year. It shall be staffed with competent personnel experienced in winter operations and able to dispatch necessary maintenance forces as required.

2. All calls shall be logged on a special form provided for this purpose. It shall indicate the time of call, who from and action taken.

3. All calls received from County of Wellington OPP shall be forwarded to the Supervisor or Operator in the applicable maintenance Area and appropriate action taken if practicable.

4. Plowing and sanding/salting routes shall be established and reviewed and/or revised annually to provide for the most efficient use of staff and equipment.

5. As time permits between storms, snow shall be loaded and/or blown;

    a. To widen the roadway and provide for the safe movement of vehicular traffic when the road width is constricted by snow windrows.
    b. To minimize the hazards of high snow banks to traffic in locations such as intersections and driveways.
    c. To provide room for on-street parking.
    d. To minimize hazards to pedestrians in such locations as intersections, bus stops, and the downtown core areas.


## Level of Service (LOS)

e. To facilitate drainage where snow banks are blocking catch basins.
f. To remove snow that has been plowed onto sidewalks where no boulevard area exists between the roadway and sidewalk for the storage of snow.

6. Snow fence may be erected at locations where snow drift is a major problem requiring high maintenance.

   Efforts shall be made to contact property owners prior to entering private property to erect snow fence however, the Municipal Act 2001, c.25, s.60 provides that the County may, at any reasonable time, enter upon any land within the municipality or within the adjoining municipality and lying along any highway under its jurisdiction, for the purpose of erecting and maintaining a snow fence.

<u>Snow Accumulation</u>

1. The minimum LOS for clearing snow accumulation is;

   a. after becoming aware of the fact that the snow accumulation on the roadway is greater than the depth set out in the Table to this section, to deploy snow-clearing resources as soon as practicable; and
   b. after the snow accumulation has ended, to clear the snow to a depth less than or equal to the depth set out in the Table within the time set out in the Table,
      (i) to provide a minimum lane width of the lesser of three metres for each lane or the actual lane width, or
      (ii) on a Class 4 or Class 5 highway with two lanes, to provide a total width of at least five metres.

   c. The depth of snow will be determined by monitoring the weather and performing visual observations.
   d. The County will deploy resources to plow and apply materials as necessary including but not limited to DLA, salting and or sanding. This does not apply to that portion of the roadway for parking.

# Level of Service (LOS)

**TABLE**
**SNOW ACCUMULATION**

| Class of Highway | Depth | Time |
|---|---|---|
| 1 | 2.5 cm | 4 hours |
| 2 | 5 cm | 6 hours |
| 3 | 8 cm | 12 hours |
| 4 | 8 cm | 16 hours |
| 5 | 10 cm | 24 hours |

Ice formation on roadways and icy roadways

1. The minimum standard for the prevention of ice formation on roadways is doing the following in the 24-hour period preceding an alleged formation of ice on a roadway:

    a. Monitor the weather
    b. Patrol
    c. If we determine there is a substantial probability of ice forming on a roadway, treat the roadway to prevent ice formation within the time set out in the Table to this section, starting from the time we determine is appropriate to deploy resources for that purpose
    d. The County will apply sand and or salt plus Freeze Point Depressants as necessary within the time set out in the following Table for Icy Roadways.

# Level of Service (LOS)

**TABLE**
**ICY ROADWAYS**

| Class of Highway | Time |
|---|---|
| 1 | 3 hours |
| 2 | 4 hours |
| 3 | 8 hours |
| 4 | 12 hours |
| 5 | 16 hours |

Road Classification

Winter maintenance needs are dependent on several factors including traffic volumes, speed, type, winter maintenance experience and the objective for each road.

To ensure the appropriate allocation of resources to promote consistency throughout the County, the County Road network has been classified into six classes based on the posted/regulated speed and the annual average daily traffic. *(Note most County Roads are classified as Class 2, 3, and 4. At this time there are no Class 1, Class 5 or Class 6 roads under County jurisdiction)*.

# Level of Service (LOS)

**TABLE**
**CLASSIFICATION OF HIGHWAYS**

| Average Daily Traffic (number of motor vehicles) | 91 - 100 km/h speed limit | 81 - 90 km/h speed limit | 71 - 80 km/h speed limit | 61 - 70 km/h speed limit | 51 - 60 km/h speed limit | 41 - 50 km/h speed limit | 1 - 40 km/h speed limit |
|---|---|---|---|---|---|---|---|
| 53,000 or more | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 23,000 - 52,999 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| 15,000 - 22,999 | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 12,000 - 14,999 | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 10,000 - 11,999 | 1 | 1 | 2 | 2 | 3 | 3 | 3 |
| 8,000 - 9,999 | 1 | 1 | 2 | 3 | 3 | 3 | 3 |
| 6,000 - 7,999 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| 5,000 - 5,999 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| 4,000 - 4,999 | 1 | 2 | 3 | 3 | 3 | 4 | 4 |
| 3,000 - 3,999 | 1 | 2 | 3 | 3 | 3 | 4 | 4 |
| 2,000 - 2,999 | 1 | 2 | 3 | 3 | 4 | 5 | 5 |
| 1,000 - 1,999 | 1 | 3 | 3 | 3 | 4 | 5 | 5 |
| 500 - 999 | 1 | 3 | 4 | 4 | 4 | 5 | 5 |
| 200 - 499 | 1 | 3 | 4 | 4 | 5 | 5 | 6 |
| 50 - 199 | 1 | 3 | 4 | 5 | 5 | 6 | 6 |
| 0 - 49 | 1 | 3 | 6 | 6 | 6 | 6 | 6 |

## ROAD PATROL

**Objective**

The major objectives for ROAD PATROL are:

- To ensure that all roads are inspected on a regular basis.
- To observe and record defects requiring action.

# Level of Service (LOS)

- To ensure that the road is maintained in a safe condition.

**Summary**

The level-of-service for ROAD PATROL shall be in accordance with the following:

Patrolling

1. The LOS for the frequency of routine patrolling of highways is set out in the Table to this section.

2. Patrolling shall be carried out by driving on the roadway to check for the following conditions:

    a. Snow accumulation
    b. Icy roadways
    c. Potholes on road surface and paved or unpaved shoulders
    d. Shoulder drop-offs
    e. Cracks
    f. Debris
    g. Luminaries
    h. Signs
    i. Traffic control signal systems and sub systems
    j. Bridge deck spalls
    k. Surface discontinuities on roads and bridge decks

# Level of Service (LOS)

**TABLE**
**PATROLLING FREQUENCY**

| Class of Highway | Patrolling Frequency |
|---|---|
| 1 | 3 times every 7 days |
| 2 | 2 times every 7 days |
| 3 | once every 7 days |
| 4 | once every 14 days |
| 5 | once every 30 days |

Summer

1. All County roads shall be patrolled as per the above table. Area Supervisors, Lead Hands or a designated employee shall visually inspect the road and roadside from the vehicle and shall note major problems and problem areas on the form.

2. The Area Supervisor or Lead Hand shall arrange for the repair of noted works that present hazards to vehicular or pedestrian traffic or to private or public property.

3. They shall carefully record all major road defects and actions taken to correct same. Special investigations carried out as a result of accident claims shall be documented on a separate report form and forwarded to the Roads Superintendent.

4. Identified problems or concerns that are not of an immediate nature will be brought up for discussion at staff meetings or shall be discussed with the Superintendent for advice and action to be taken.

Winter

1. In addition to the above procedures snow control personnel shall cover all roads in their assigned areas as per frequencies set out in the above table or more often


## Level of Service (LOS)

depending on severity of winter conditions. In addition, road condition reports shall be received from winter maintenance crews during the performance of their winter control activities.

2. Snow control personnel shall report the road conditions regularly to Central Garage to be recorded on a Road Weather Report.

## DECLARATION OF SIGNIFICANT WEATHER EVENT

The County will declare the beginning or end of a significant weather event in one or more of the following ways:

1. By posting a notice on the County's website
2.

1. By posting a notice on the County's website.
2. By making an announcement on a social media platform, such as Facebook or Twitter.
3. By sending a press release or similar communication to internet, newspaper, radio or television media.
4. By notification through the municipality's police service.