



PUBLIC WORKS COMMITTEE AGENDA

**Wednesday, June 22, 2016, 9:00 a.m.
55 Zina St. Orangeville, Sutton Room.**

Declarations of Pecuniary Interest by Members

PUBLIC QUESTION PERIOD

Members of the public will be provided an opportunity to ask questions of the Committee during this time. (Limited to 10 minutes)

CORRESPONDENCE

1. PUBLIC WORKS COMMITTEE – June 22, 2016 – ITEM #1
Charity “Toll Road” – Marsville Lions Club

Correspondence from Marsville Lions Club dated June 10, 2016 requesting to hold an Annual “Toll Road” event on September 5, 2016 on Dufferin Road #3 in the hamlet of Marsville.

Recommendation:

For consideration of Committee.

REPORTS

2. PUBLIC WORKS COMMITTEE – June 22, 2016 – ITEM #2
Capital Project Update – June 2016

A report from the Director of Public Works/County Engineer dated June 22, 2016 to provide Committee and Council with an update regarding the upcoming 2016 Public Works - Transportation Capital Projects.

Recommendation:

THAT Report, Capital Project Update – June 2016, from the Director of Public Works/County Engineer, dated Wednesday, June 22, 2016 be received.

3. PUBLIC WORKS COMMITTEE – June 22, 2016 – ITEM #3
Multi-Use Trail Plan and Policies – Request for Proposal

A report from the Director of Public Works/County engineer dated June 22, 2016 to recommend to Committee and Council that staff issue a request for proposal for consulting services to develop a multi-use trail plan and policies around the proposed multi-use trail along the County owned former rail corridor.

Recommendation:

THAT Report, Multi-Use Trail Plan and Policies RFP, dated June 22, 2016, from the Director of Public Works/County Engineer be received;

AND THAT staff be authorized to proceed with an RFP to develop a plan and policies for the proposed multi-use trail within the County owned former rail corridor.

4. PUBLIC WORKS COMMITTEE – June 22, 2016 – ITEM #4
Dufferin Bridge and Large Culvert Projects

A report from the Director of Public Works/County Engineer dated June 22, 2016 to provide Committee and Council with information on County bridge and large culvert project costs and to explain in-house project selection.

Recommendation:

THAT Report, Dufferin County Bridge and Culvert Projects, from the Director of Public Works/County Engineer, dated Wednesday, June 22, 2016 be received.

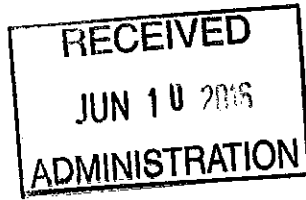
5. PUBLIC WORKS COMMITTEE – June 22, 2016 – ITEM #5
Requests for Delegations – Association of Municipalities of Ontario Conference

Email correspondence from the Ministry of Municipal Affairs and Housing to remind Municipalities of the Wednesday, June 29, 2016. deadline for the submission of requests for delegations with Ministers at the Association of Municipalities (AMO) Conference in August 2016. Information about delegations and a link to the request form is now available online at <http://www.mah.gov.on.ca/Page14816.aspx>

Recommendation:

For Consideration of the Committee.

**Next Meeting: Wednesday August 24, 2016 at 9.00am
EOC, Mel Lloyd Centre, Shelburne**



Marsville Lions Club
191480 13th Line
East Garafraxa, ON
L9W 7B5

June 10, 2016

Public Works Committee
Dufferin County

To whom it may concern:

We, the Marsville Lions Club, would like to formally request the event of an Annual "Toll Road" on Dufferin Road #3 in the hamlet of Marsville.

The Marsville Lions Club has successfully held a Toll Road through Marsville for the last two years. We find that an annual Toll Road is a great way to raise funds for community objectives and Lions programs. We would like to request again a 3 hour traffic stoppage (1pm – 4pm) at the corner of Dufferin Rd #3 and the 13th line of East Garafraxa. We are hoping to hold our Toll Road Event on the Labour Day Monday in September 2016.

The Marsville Lions have looked at safety measures, and have secured use of pylons and safety vests for the event. We have also decided to give out cards to those who have donated to expedite their return trip through the area. We are willing to take suggestions to make our site safe for the Lions and for the public driving through.

Thank you for considering our request. We appreciate the time it takes to deliberate and come to a decision regarding this matter.

Best Regards:

Neil Hoogendoorn

President Marsville Lions Club



**REPORT TO
PUBLIC WORKS COMMITTEE**

To: Chair Mills and Members of Public Works Committee

From: Scott C. Burns, Director of Public Works/County Engineer

Meeting Date: Wednesday, June 22, 2016

Subject: Capital Project Update – June 2016

In Support of Strategic Plan Priorities and Objectives:

Service Excellence: 4.1 Close the infrastructure gap.

Purpose

The purpose of this report is to provide Committee and Council with an update regarding the upcoming 2016 Public Works - Transportation Capital Projects.

Background & Discussion

Where project work schedules require adjusting, additional scheduling details will be provided through future reports to Committee.

As part of the County's 2016 Capital budget, the following road work has been approved for completion this year.

Item No.	Location	Description	Length	From/To	Construction Start	Anticipated Completion
R1	CR11	Resurfacing & Widening	3.1 km	15 SR to 20 SR, Amaranth	May 24, 2016	September 2016
R2	CR19	Resurfacing	3.1 km	5 SR to CR 17, Mulmur	May 9, 2016	June 17, 2016
R3	CR15	Resurfacing	4.8 km	CR 25 to Monticello	May 18, 2016	June 17, 2016
R4	CR24	Resurfacing	3.3 km	CR 3 to 10 SR East Garafraxa	May 9, 2016	June 24, 2016
R5	CR24	Resurfacing	3.9 km	10 SR to CR 109	May 9, 2016	June 24, 2016
Total Road Length			18.2 km			

As part of the County's 2016 Capital budget, the following bridge/large culvert work has been approved for completion this year (see attached sketch for project locations).

Item No.	Location	Structure	Action	Status	Construction Start	Anticipated Completion
S1	CR 24, 650 m south of 10 SR East Garafraxa	Culvert 231544XC	Replace	Contract Awarded	July 11, 2016	September 16, 2016
S2	CR 124, 1.1 km north of 5 SR Melancthon	Municipal Drain Culv. 004-0186	Repairs	Contract Awarded	June 13, 2016	July 15, 2016
S3	CR 124, 2.3 km north of Hwy 89 Melancthon	Boyne River Bridge 004-0116	Repairs	Contract Awarded	July 2016	September 2016
S4	CR 9, 500 m east of Hwy 10 Melancthon	Culvert No. 802 004-0906	Repairs	Contract Awarded	May 2016	July 2016

Financial, Staffing, Legal and IT Considerations

Funds for all 2016 Capital road and bridge projects are provided through the 2016 Capital Budget.

Strategic Direction and County of Dufferin Principles

Performing capital road and bridge rehabilitation directly supports the strategic objective to close the infrastructure gap. The Dufferin County principles are adhered to as follows:

1. We Manage Change – addressing the infrastructure gap while being cognisant of economic conditions;
2. We Deliver Quality Service – administering high quality, cost-effective Capital projects that reflect the needs of the community;
3. We Communicate – by sharing timely and accurate project updates through Council and posting notices for the community;
4. We Make Good Decisions – by performing thorough preliminary investigations that ensure informed and thoughtful project decisions that are reflective of the needs of those affected.

Recommendation

THAT Report, Capital Project Update – June 2016, from the Director of Public Works/County Engineer, dated Wednesday, June 22, 2016 be received.

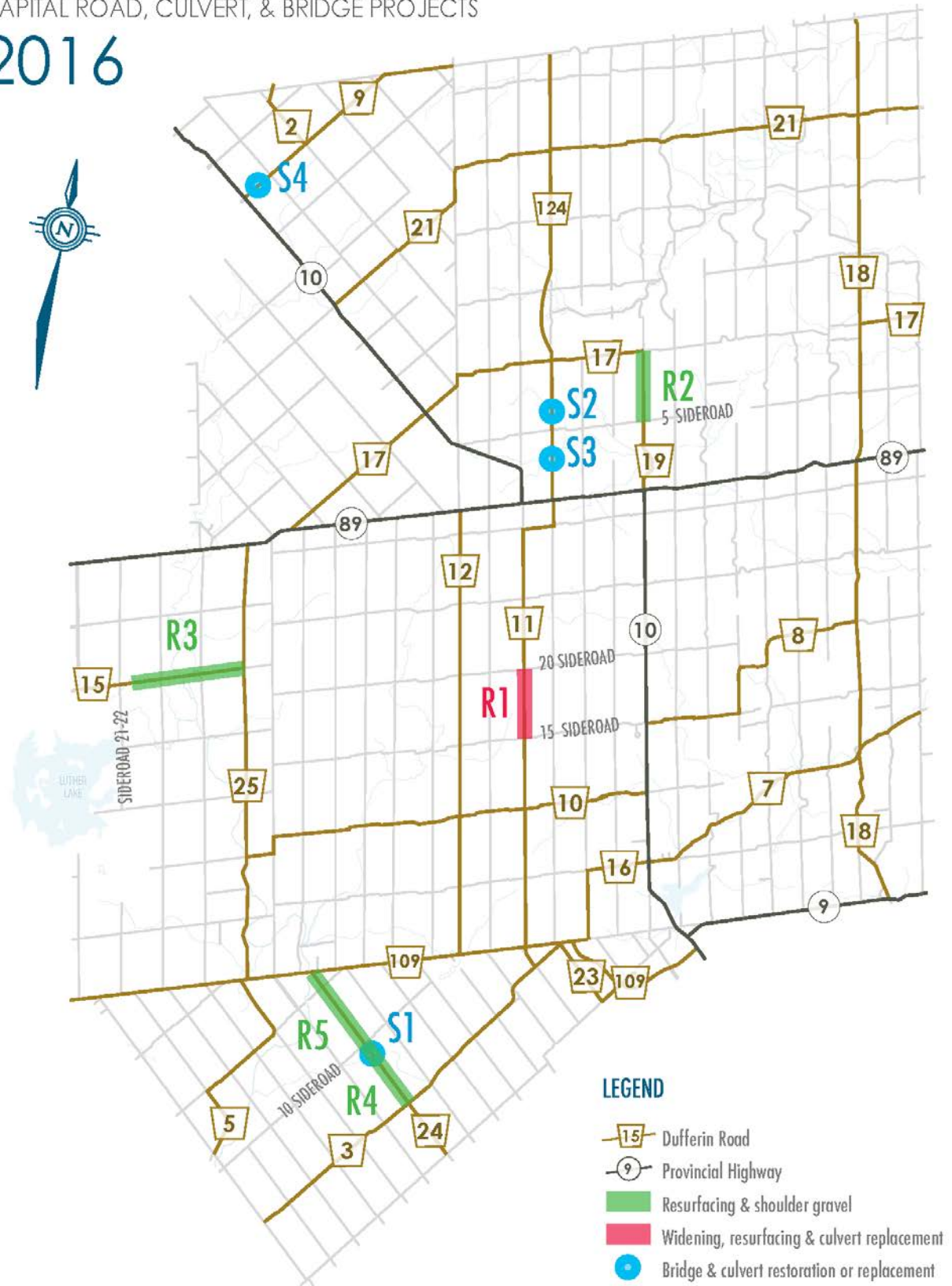
Respectfully Submitted By:

Original signed by,

Scott C. Burns, P.Eng., C.E.T.
Director of Public Works/
County Engineer

CAPITAL ROAD, CULVERT, & BRIDGE PROJECTS

2016





Surface Course Asphalt Dufferin Road 15



Shoulder Gravel Dufferin Road 15



Culvert Extension Dufferin Road 24



Shoulder Gravel Dufferin Road 24



Surface Course Asphalt Dufferin Road 24



Shoulder Widening Dufferin Road 11



Shoulder Subgrade Preparation and Subdrain Installation Dufferin Road 11



Dufferin Road 19



REPORT TO PUBLIC WORKS COMMITTEE

To: Chair Mills and Members of Public Works Committee

From: Scott C. Burns, Director of Public Works/County Engineer

Meeting Date: Wednesday, June 22, 2016

Subject: **Multi-Use Trail Plan and Policies – Request for Proposal**

In Support of Strategic Plan Priorities and Objectives:

Economic Vitality: 1.3 Promote conservation and environmental sustainability

Purpose

The purpose of this report is to recommend to Committee and Council that staff issue a request for proposal for consulting services to develop a multi-use trail plan and policies around the proposed multi-use trail along the County owned former rail corridor.

Background & Discussion

For some time now there has been an outstanding Council direction to develop a plan and policies for a multi-use trail within the County owned former rail corridor. This motion reads that “staff be directed to develop appropriate multi-use trail plan and policies” and was initially endorsed by Council towards the end of the Dufferin Wind Power Inc. transmission line construction project within the corridor.

Now, with all construction work within the corridor complete, staff recommend proceeding with a request for proposal to procure the services of an experienced and qualified consultant. The consultant will work to develop necessary plan and policy requirements around the multi-use trail. This will ensure that necessary plans and policies will be developed within a reasonable timeline such that the residents of Dufferin will be offered a well developed trail in the near future.

Financial, Staffing, Legal, or IT Considerations

Funds for this work were not specifically allocated within the approved 2016 Budget, but are available for the project. A preliminary cost estimate for the work is \$50,000. With the Dufferin Road Rationalization Study currently not proceeding further per the June 9, 2016 County Council meeting, staff recommend utilizing 2016 funds set aside for phase

2 of the Study for this trails project. Additional funds are also available for this project through those provided by Dufferin Wind Power Agreement with Dufferin County.

Strategic Direction and County of Dufferin Principles

Working to further develop the proposed multi-use trail within the County owned former rail corridor is in line with the specific priorities outlined in the Corporate Strategic plan: Develop multi-use trail plan and policies 1.3.3. The Dufferin County principles are adhered to as follows:

1. We Manage Change – working to redevelop the former rail corridor into a valuable asset for the Dufferin community;
2. We Deliver Quality Service – ensuring high quality solutions through procuring the services of professional consultants with applicable expertise, knowledge and experience;
3. We Communicate – engaging in open consultation in a multitude of ways;
4. We Make Good Decisions – procuring high levels of knowledge and expertise to help inform decisions through Council to best meet the needs of the Dufferin community.

Recommendation

THAT Report, Multi-Use Trail Plan and Policies RFP, dated June 22, 2016, from the Director of Public Works/County Engineer be received;

AND THAT staff be authorized to proceed with an RFP to develop a plan and policies for the proposed multi-use trail within the County owned former rail corridor.

Respectfully Submitted By:

Original signed by,

Scott C. Burns, P.Eng., C.E.T.
Director of Public Works/County Engineer



REPORT TO PUBLIC WORKS COMMITTEE

To: Chair Mills and Members of Public Works Committee
From: Scott C. Burns, Director of Public Works/County Engineer
Meeting Date: Wednesday, June 22, 2016
Subject: **Dufferin Bridge and Large Culvert Projects**

In Support of Strategic Plan Priorities and Objectives:
Service Excellence: 4.1 Close the infrastructure gap.

Purpose

The purpose of this report is to provide Committee and Council with information on County bridge and large culvert project costs and to explain in-house project selection.

Background & Discussion

During the April 2016 Public Works Committee meeting, staff were asked to provide information on bridge and large culvert project costs. Below are factors that can contribute to costs as well as opportunities where savings can be achieved by performing select projects in-house. These costs are outside of those associated with typical inflationary increases applicable to materials, labour, fuels, etc.

Several general construction cost factors contribute to bridge and large culvert projects, aside from the specific cost of the structure itself. This represents approximately 35% to 45% of the total project cost. These factors ensure favourable environmental and traffic impacts both during and after construction. On busier roadways, these points become increasingly important from a liability and worker safety perspective.

General construction cost factors can include:

- Extensive traffic control systems, construction staging, installation of traffic bypass lanes, etc. These measures work to minimize detours and subsequent impacts on local roads.
- Localized road reconstruction, localized road enhancements or improvements, etc. This work aims to comply with current road design standards, etc.
- Conservation Authority requirements, protection of species at risk, waterway protection and stream diversion, water control such as temporary sheet piles, etc.

- Short permitted seasonal windows of construction. These periods vary depending the waterway, in-water work, natural habitat and species present.

In addition to general construction costs, several structure specific factors also contribute to overall project costs. This represents approximately 55% to 65% of the total project cost. In many cases, it is not possible for a structure to be replaced in-kind as compliance with governing standards results in dimensional changes that further increase costs. Dimensional changes are incorporated to ensure safe operation and functional longevity of a structure well into the future, decades beyond the date of installation. These changes vary depending on site specific conditions.

Structure specific cost factors can include;

- The Department of Fisheries and Oceans Canada carries an operational statement that new structures should be installed such that footings are well beyond the banks of a waterway to the level of the appropriate design storm. This minimizes disruption of the natural habitat, often by increasing the span of a structure beyond that of existing conditions.
- The Canadian Bridge Code and Ministry of Transportation of Ontario Design Manuals requires accommodation of applicable design storm events to avoid roadway flooding during heightened weather conditions. This can impact structure span or height to ensure the safe passage of emergency services and other vehicles during large storm events.
- Applicable design storm parameters (mentioned above) were recently updated for accuracy and to account for today's rainfall intensities and storm frequencies. In line with this, the Ministry of Transportation of Ontario is trending towards a predictive storm modelling system to look beyond a twenty-year period for structure sizing to capture the impacts of a changing climate.
- The Canadian Bridge Code and Ministry of Transportation of Ontario Design Manuals provide direction on structure platform width, safety measures and barrier systems that correlate to the traffic volume, speed and composition. These measures typically exceed those of the existing structure as many were installed decades ago when regulations and functional expectations were less stringent. Increases in width also facilitates the safe movement of today's large agricultural equipment.

A design that includes the above points ensures properly functioning bridges and large culverts for the long-term. Through this, there is a drastically reduced probability of any costly interim enhancements during a structure's useful life. This approach works to achieve the minimum overall life-cycle cost.

In order to refine capital budget accuracy, staff work with consultants to complete the above assessments and related design work early in the season. This will ensure that budgets follow final design parameters, as opposed to only preliminary investigations.

Similar to municipalities with dedicated bridge and large culvert crews, Dufferin Public Works performs projects that are practical for completion in-house and will tender those that are not. Tendered projects typically require greater and unique expertise, extensive traffic management measures, have increased exposure to liability, and fall within shorter windows of permitted work per the applicable Conservation Authority. These projects therefore better suit established contractors.

As noted above, in-house bridge and large culvert projects are routinely performed by Dufferin Public Works in a similar fashion to municipalities with dedicated crews. These projects range from large corrugated steel or concrete box culvert replacements to bridge or culvert maintenance and safety enhancements. For these projects, staff coordinate, rent and or hire equipment and manpower as needed for specific stages of construction to ensure cost efficiency. These projects are aside from other routine in-house tasks including cross-culvert, entrance culvert, drainage work, other roadside maintenance programs and work for other departments. Public Works annually budgets approximately 1,000 man-hours for all in-house projects. Usage varies depending on actual work performed.

The following lists some recent large culvert projects performed by Dufferin Public Works. Images are attached.

- Culvert 004-0909 on Dufferin Road 17 – 3.0m span concrete box culvert replaced in 2008.
- Culvert 593604 on Dufferin Road 10 – 1.8m span concrete box culvert replaced in 2010.
- Culvert 032270 on Dufferin Road 5 – 1.8m span concrete box culvert replaced in 2012.
- Culvert 784140 on Dufferin Road 9 – 1.65m diameter corrugated steel pipe replaced in 2013.
- Bosman Drain Culvert on Dufferin Road 12 – 2.2m diameter corrugated steel pipe replaced in 2014.

Dufferin Public Works administers several other in-house work each year including;

- Dufferin facility parking lot rehabilitations including the court house and the Edelbrock Centre.
- Earthworks and grading projects including 325 Blindline Ambulance station and the upcoming Dufferin Waste Services storage building in Primrose.
- Other roads related projects such as the Dufferin Road 124 road cut removal.

In-house projects are a routine function of Dufferin Public Works and staff pursue every opportunity to perform the work wherever practical. Staff will provide more updates to Council on such projects in the future.

Financial, Staffing, Legal and IT Considerations

There are no direct financial, staffing, legal or IT impacts from this report.

Strategic Direction and County of Dufferin Principles

Exploring options for performing capital work such that construction and overall life-cycle costs are appropriate and consider the long-term supports the strategic objective to close the infrastructure gap. The Dufferin County principles are adhered to as follows:

1. We Manage Change – addressing the infrastructure gap while being cognisant of economic conditions;
2. We Deliver Quality Service – administering high quality, cost-effective Capital projects that reflect the needs of the community;
3. We Communicate – by sharing timely and accurate project updates through Council and posting notices for the community;
4. We Make Good Decisions – by performing thorough preliminary investigations that ensure informed and thoughtful project decisions that are reflective of the needs of those affected.

Recommendation

THAT Report, Dufferin County Bridge and Culvert Projects, from the Director of Public Works/County Engineer, dated Wednesday, June 22, 2016 be received.

Respectfully Submitted By:

Original signed by,

Scott C. Burns, P.Eng., C.E.T.
Director of Public Works/
County Engineer



Culvert 004-0909 – Dufferin Road 17



Culvert 032270 – Dufferin Road 5



Culvert 032270 – Dufferin Road 5



Culvert 784140 Dufferin Road 9



Bosman Drain Culvert – Dufferin Road 12