

Municipality of Chatham-Kent
Infrastructure and Engineering Services
Engineering and Transportation Division

To: Mayor and Members of Council
From: Chris Thibert, P.Eng.
Director, Engineering
Date: October 27, 2020
Subject: Bridge Divestment Criteria

Recommendation

It is recommended that:

1. The Bridge and Culvert Divestment Criteria Matrix (Table 1) and public engagement process detailed within this report be approved and applied to all future bridge rehabilitation/replacement projects.

Background

As per the recommendation in the Report to Council titled "Council's Growth and Recovery Next Steps" which was approved at the October 19, 2020 Council meeting:

"That Council accept the Growth and Recovery Strategy next steps as presented in the Growth and Recovery Strategy Next Steps Gantt Chart."

- Item 23 of the Gantt Chart depicts "Bridges/Culverts matrix – RTC"

This report is being written to provide recommendations for consideration from an internal bridge review in support of the Growth and Recovery Strategy which is also in line with the 2018-2022 Council Term Priorities under "Growth - Rationalize current inventory of bridges, roads, parks and buildings in support of new infrastructure investment".

In 2013, Council approved a bridge and culvert investment/divestment strategy with a list of 25 structures to be divested over a period of ten years. Divestment indicates that no funds will be allocated to maintain or renew a given bridge site. Public safety will be ensured by means of bi-annual inspection and the use of load ratings as required. When a structure reaches its lifecycle and warrants closure due to safety, it shall be eliminated from service and ultimately the bridge inventory.

This strategy outlined a divestment criteria which evaluated the following conditions at each bridge and culvert location:

- Minimize impact on property, residence, emergency services and businesses
- Select low use structures
- Prioritize paved roads and major arteries
- Ensure transportation network redundancy exists
- Minimize distance around the closure via adjacent roadways

At the July 15, 2019 Council meeting, Council approved the 2018-2022 Council Term Priorities which identify Growth as a priority and to “Rationalize current inventory of bridges, roads, parks and buildings in support of new infrastructure investment.”

As per the October 7, 2019 Council meeting, the following motion was approved:

“Administration was directed to return to Council with a report outlining the following:

1. Clearly defined terms of “right size” and “rationalize” in relation to municipal assets.
2. Drafted or confirmed “divestment lists” for any municipal assets in the categories of bridges, roads, parks and buildings, including information about the decision making process that led to the identification of those assets for divestment.
3. Confirms or establishes a decision-support matrix to be used for all municipal assets recommended for divestment. This decision matrix should consider not only lifecycle and capital costs, but also the following:
 - a. Safety
 - b. Agricultural impact, given the prominence of agriculture within the Municipality
 - c. Small business, and other economic development impacts
 - d. The environment
 - e. Traffic impacts to surrounding roads (when appropriate)
 - f. Comparable asset performance across Chatham-Kent
 - g. Any indicators that can be used to apply consistent decision making across assets for better understanding of their value and contribution to the community
 - h. Any other pertinent information
 - i. Consider if a building recommended for divestment could be repurposed for affordable housing
4. Confirms or establishes a community engagement strategy for any divestment, rationalizing or right sizing. This strategy should consider the importance of notifying impacted residents in discussing divestment of assets near their place of residence.

And, that this information can come to Council in a single report, or a series of reports focused on assets by category.

And, that no divestment of any asset be brought to Council until the information requested is received for that category of asset.

And, that Council receive a preliminary report in November as to the timeline they require to produce each report requested.”

Administration presented the report Asset Divestment Timelines (Appendix A) on December 9, 2019 which was approved as amended:

“Staff work on the divestment/rationalization decision support matrix for one asset area at a time, working within their existing resources. And that staff begin this work with a focused pilot, in the asset category of parks and buildings, specifically in the community of Wallaceburg, and to return to Council with a report on the initiative sometime within the 2020 calendar year, for discussion and lessons learned on the process. And, in the interim, the approved Council direction regarding asset divestment be maintained”.

As per the June 15, 2020 Council meeting and Task Force motion:

That Council direct administration to prepare the 2021 draft budget with a target increase of CPI as well as the additional annual asset management plan increase, and that consistent with the adoption of the CK Recovery Task Force recommendations by Council, administration provide further options to reduce the 2021 budget impact to 0%. Options for 0% requiring significant changes to infrastructure, facilities, or services require administration to provide an interim report by October 19, 2020.

Comments

Table 1 below, is the recommended criteria matrix with a pass/fail criteria to be applied on all future bridges and culverts within the Municipality following Council’s approval.

Table 1 – Bridge Divestment Criteria Matrix

Criteria	Description	Decision
1	Safety	The divestment of the structure does not pose any direct or indirect safety concerns to the public.
2	Road Class/Type	The road must be local, gravel or surface treated to be considered for divestment. Collectors or arterials will not be considered for divestment.
3	Traffic Volume	Consider for divestment if the road is less than 400 Annual Average Daily Traffic volume (AADT).
4	Traffic Impacts	Consider for divestment if the detour associated with the bridge closure is less than 10 minutes and alternative routes exist.
5	Overall Transportation Network	Divestment of this road/bridge does not conflict with the Transportation Master Plan, Cycling Master Plan, Official or Secondary Plans.

To assess the impacts to adjacent residential, commercial and agricultural properties, administration recommends following the Municipal Class Environmental Assessment (EA) process for public consultation. If the structure passes all five (5) criteria above and is recommended for divestment consideration, administration will post the outcome and divestment proposal online for a period of 30 days to obtain comment/feedback from the public. These comments will then be included in a Council report for Council's final consideration on an annual basis. This process will serve to capture all comments from Chatham-Kent residents and replace the requirement for deputations on the day the report is voted on.

Council also directed administration to evaluate the environmental impacts associated with this criteria as well. There is an environmental impact associated with the detour but also significant environmental benefits as a result of no longer having to maintain divested structures or impact to waterways. Therefore, the environmental category was not incorporated into the criteria above.

This matrix will be applied to every structure, greater than 3.0 m span, on an individual basis and as the structure is determined ready for rehabilitation or replacement. If the structure fails any of the five (5) criteria in Table 1, administration will proceed with detailed design and construction as required.

Areas of Strategic Focus and Critical Success Factors

The recommendation in this reports support the following areas of strategic focus:

- Economic Prosperity:
Chatham-Kent is an innovative and thriving community with a diversified economy
- A Healthy and Safe Community: Chatham-Kent is a healthy and safe community with sustainable population growth
- People and Culture:
Chatham-Kent is recognized as a culturally vibrant, dynamic, and creative community
- Environmental Sustainability:
Chatham-Kent is a community that is environmentally sustainable and promotes stewardship of our natural resources

The recommendation in this reports support the following critical success factors:

- Financial Sustainability:
The Corporation of the Municipality of Chatham-Kent is financially sustainable
- Open, Transparent and Effective Governance:
The Corporation of the Municipality of Chatham-Kent is open, transparent and effectively governed with efficient and bold, visionary leadership
- Has the potential to support all areas of strategic focus & critical success factors
- Neutral issues (does not support negatively or positively)

Consultation

No other departments were consulted in the preparation of this report.

Financial Implications

There are no financial implications as a result of this report. Financial implications will be finalized as annual reports are approved by Council.

Prepared by:

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Director, Engineering
Engineering and Transportation

Reviewed by:

Thomas Kelly, P.Eng., MBA
General Manager
Infrastructure and Engineering Services

Attachments: Appendix A – Asset Divestment Timelines (RTC #4193)

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Municipality of Chatham-Kent
Infrastructure and Engineering Services

To: Mayor and Members of Council
From: Thomas Kelly, P.Eng.,MBA
General Manager
Date: November 21, 2019
Subject: Asset Divestment Timelines

Recommendations

It is recommended that:

1. Administration proceed with a request for proposal (RFP) to outsource the works required for the Rationalization/Divestment of Municipal Assets subject to 2020 budget approval.

Background

As noted in the 2018-2022 Council Term Priorities under “Growth - Rationalize current inventory of bridges, roads, parks and buildings in support of new infrastructure investment” is an area of strategic focus.

In addition, the following Notice of Motion was approved by Chatham-Kent Council at the October 7, 2019 meeting:

“That administration return to Council with a report for information (or series of reports) that includes the following:

1. Clearly defined terms of “right size” and “rationalize” in relation to municipal assets.
2. Drafted or confirmed “divestment lists” for any municipal assets in the categories of bridges, roads, parks and buildings, including information about the decision making process that led to the identification of those assets for divestment.
3. Confirms or establishes a decision-support matrix to be used for all municipal assets recommended for divestment. This decision matrix should consider not only life cycle and capital costs, but also the following:
 - a. Safety
 - b. agricultural impact, given the prominence of agricultural within the Municipality
 - c. small business, and other economic development impacts

- d. the environment
 - e. traffic impacts to surrounding roads (when appropriate)
 - f. comparable asset performance across Chatham-Kent
 - g. any indicators that can be used to apply consistent decision making across assets for better understanding of their value and contribution to the community
 - h. any other pertinent information
 - i. consider if a building recommended for divestment could be repurposed for affordable housing
4. Confirms or establishes a community engagement strategy for any divestment, rationalizing or right sizing. This strategy should consider the importance of notifying impacted residents in discussing divestment of assets near their place of residence.

And, that this information can come to council in a single report, or a series of reports focused on assets by category.

And, that no divestment of any asset be brought to council until the information requested is received for that category of asset.

And, that Council receive a preliminary report in November as to the timeline they require to produce each report requested.”

Comments

This report will address the timelines required to produce the requested information for the following Municipal assets:

- Bridges
- Roads
- Parks
- Buildings

Bridges

The Municipality maintains a total of 864 bridges which are structures over a 3 meter span carrying vehicular traffic over a watercourse. For the purpose of this “Rationalization/Divestment” strategy, only bridges on rural local roads are assumed to be considered to produce the requested information. Bridges that will not be considered are as follows:

- Bridges on Arterial or Collector Roads
- Direct access to schools/hospitals
- Pedestrian or Rail bridges
- Connecting Link or Provincially maintained bridges
- Cemetery bridges

- Border road bridges including reserve borders (due to Boundary agreement)

Therefore, subtracting the bridges above there are a total of 585 bridges within the Municipality that would all have to be reviewed and analyzed individually for this request. To establish a 'divestment list' on these 585 bridges which contains the decision-support matrix per the criteria in the motion above, administration anticipates it will take 1.5 days (10.5 hours) per bridge. This assessment per bridge includes evaluation of the most recent condition assessments, traffic analysis, road network analysis and field assessment.

Also per the motion, a community engagement strategy will be required per asset. For bridges, administration recommends a Public Information Center (PIC), which is the most effective means of notifying and consulting with the public. The following are requirements for every PIC:

- Notices prepared and either mailed out or hand delivered (depending on size of affected area) including media notices
- Location for the PIC verified and secured
- Information in the form of display boards prepared
- Staff time for:
 - Preparing all of the above
 - Attending the event typically after hours
 - Compiling and reporting on public comments and feedback

Administration anticipates it will take 1.5 days (10.5 hours) to complete this community engagement task per bridge. It is estimated that this time will be required on approx. 10% of the 585 bridges which is 59 bridges.

In summary, for the 585 Municipal bridges on local rural roads, to complete the divestment/rationalization request per the motion above, it will be 966 days or 6,762 hours.

For reference, a 1-year Grade 9 FTE is 1,645 hours, which equates to approx. \$120,000 per year including wages, equipment and travel expenses. Therefore, for bridges at 6762 hours, it will be 4.1 FTEs (or \$492,000) for a 1-year project duration.

Roads

The Municipality maintains a total of 3,488 km of roads which consists of asphalt, surface treated (tar & chip), gravel and some concrete. Classes of these road networks, as defined in the Municipality's Transportation Master Plan are:

- Arterial Roads – These roads primarily provide service for through-traffic movement. Although some land-access service may be accommodated off arterial roads, it is clearly a minor function. Roadway design and traffic controls are intended to provide efficient through movement. Arterial roads are subdivided into urban and rural categories.

- Collector Roads – These roads are intended to serve both through and land-access functions in relatively equal proportions. Collector roads are subdivided into urban and rural categories.
- Local Roads – The primary function of these roads is to provide direct access to adjacent lands and provide for on-street parking. Through vehicular movements are discouraged by the design and traffic control measures.

For the purposes of this “Rationalization/Divestment” strategy, only rural local roads are being considered which equates to 56.4% (or 1,968 km) of the entire road network. These roads primarily consist of gravel roads however there are some surface treated roads (8.5%) and asphalt roads (9%) included in this category as well. Urban local, collectors and arterials serve a greater purpose for connectivity, access and through-traffic. They also have greater Annual Average Daily Traffic (AADT) volumes as well.

When evaluating a road segment under the criteria requested in the motion, Engineering will assess 3 km segments at a time. 3 km is approx. two (2) Chatham-Kent typical concession lengths in the rural communities. (Therefore with 1,968 km of rural local roads divided into 3 km segments, this equates to 656 road segments).

To establish a ‘divestment list’ on these 656 road segments which contains the decision-support matrix per the criteria in the motion above, administration anticipates it will take 1.0 day (7 hours) per segment. This assessment per segment includes evaluation of the most recent condition assessments, traffic analysis, road network analysis and field assessment.

Also per the motion, a community engagement strategy will be required per asset. For road segments, administration recommends a Public Information Center (PIC), which is the most effective means of notifying and consulting with the public. Per the requirements of a PIC detailed under bridges above, administration anticipates it will take 1.5 days (10.5 hours) to complete this community engagement task per road segment. The PICs will be grouped into 25 square km areas/zones.

In summary for the 656 road segments for local rural roads to complete the divestment/rationalization request per the motion above, it will be 806 days or 5,642 hours. To equate this to an FTE, it will be 3.4 FTEs (or \$408,000) for a 1-year project duration.

Parks and Buildings

There are approximately 210 parks within Chatham-Kent. Administration is estimating approximately 3 days per park for site visits, assessment and report preparation for a total of 630 days.

Similarly, there are 130 buildings spread across Chatham-Kent. This does not include:

- Public Works Facilities
- The Chatham-Kent Civic Centre or Park Ave. Business Centre

- Public Utilities Commission Buildings
- Cemetery Buildings
- Social Housing Buildings

Administration is estimating 3 days per building for site assessment, condition evaluation, testing and report preparation for a total of 390 days.

The required PIC component for parks and buildings have been evaluated by ward. A breakdown of the number of buildings and parks per ward can be found in the attached ward maps (**Appendix A, B, C, D, E & F**). Evaluating by ward is practical for several reasons:

- Rationalization/divestment of one asset always affects/depends on other assets.
- Follows the “Community Hub” philosophy.
- Historical significance of assets is often dated to pre amalgamation community
- Conducting a PIC for every asset is not practical, applicable or affordable

Administration estimates that approximately 3 PIC meetings per ward is required to address park and building assets. The result would be 18 PIC meetings for the six wards in Chatham-Kent. Estimating 1.5 days per PIC, the total would be 27 days. It should be noted that this is a conservative estimate given the many variables such as location, asset type and usage and PIC needs could vary higher or lower from ward to ward.

In summary, the estimate to assess parks at 630 days, buildings at 390 days and PIC’s at 27 days totals 1,047 days or 7,329 hours. With 1,645 hours per year per FTE, the total for parks and building assets is 4.5 FTE’s.

Summary

Below is a summary of the time and financial commitment required to complete the Divestment/Rationalization request for each Municipal asset.

Asset	Total Days/Total Hours	FTE (1-year)	Cost
Bridges	966 days / 6,762 hrs	4.1	\$492,000
Roads	806 days / 5,642 hrs	3.4	\$408,000
Parks / Buildings	1,047 days / 7,329 hrs	4.5	\$540,000
Total	2,819 days / 19,733 hrs	12.0	\$1,440,000

At this time, there are no available resources to fulfill the requirements of this motion. It is therefore recommended that the work associated with this Divestment/Rationalization request for all Municipal Assets contained herein be outsourced as an RFP.

Areas of Strategic Focus and Critical Success Factors

The recommendations in this report support the following areas of strategic focus:

Economic Prosperity:

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People and Culture:

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Environmental Sustainability:

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The recommendations in this report support the following critical success factors:

Financial Sustainability:

The Corporation of the Municipality of Chatham-Kent is financially sustainable

Open, Transparent and Effective Governance:

The Corporation of the Municipality of Chatham-Kent is open, transparent and effectively governed with efficient and bold, visionary leadership

Has the potential to support all areas of strategic focus & critical success factors

Neutral issues (does not support negatively or positively)

Consultation

The Directors of Public Works, Drainage, Asset and Waste Management and the Manager of Parks and Open Spaces were consulted in preparation of this report.

Financial Implications

The estimated costs associated with outsourcing this request is \$2,178,000. Should Council approve the recommendation to proceed with a RFP for this project, it would further be recommended that the Bridges, Roads, Buildings and Parks lifecycle reserves be utilized for this funding.

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Reviewed by:

Chris Thibert, P. Eng.,
Director, Engineering & Transportation

- Attachments:
- Appendix A – Ward 1 – North Kent
 - Appendix B – Ward 2 – East Kent
 - Appendix C – Ward 3 – Wallaceburg
 - Appendix D – Ward 4 – West Kent
 - Appendix E – Ward 5 – South Kent
 - Appendix F – Ward 6 – Chatham

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Timelines.docx)