

SUBJECT: RECOMMENDATION REPORT
Main Street Unionville Commercial Core Streetscape Master Plan Study (2021), Ward 3

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RECOMMENDATION:

- 1) That the staff report titled “Main Street Unionville Commercial Core Streetscape Master Plan Study (2021)”, dated February 22, 2022, be received; and
- 2) That the Main Street Unionville Commercial Core Streetscape Master Plan 2021 - Study attached to the staff report as Attachments “A” and “B” be received and endorsed in principle as the guiding documents for streetscape improvements and treatment;
- 3) That Council endorse the Main Street Unionville Reconstruction Project with an estimated Capital Cost of \$10,250,000, including:
 - a. Modified Right of Way Concept #2 for Main Street Unionville and the East Lane parking and landscape improvements, as outlined in the Study , with a capital cost estimate of \$6,390,000;
 - b. Streetlighting replacement, from Highway 7 to the railway tracks, be endorsed by Council to be added as part of this project, at an estimated cost of \$410,000;
 - c. Enhanced Streetscape Treatment Option #4 , with a capital cost estimate of \$3,450,000;
- 4) That the available funding of \$2,977,000 be endorsed and that the funding source for the additional \$7,273,000 be committed from the Canada Community Building Fund (CCBF) (\$6,478,000) and the Non-DC Growth Reserve (\$795,000);
- 5) That a new 2022 Engineering Capital Budget be established for the Main Street Unionville reconstruction in the amount of \$10,250,000, inclusive of HST, to be funded from the following reserves:
 - a. Life Cycle Replacement and Capital Reserve Fund (\$870,600)
 - b. Waterworks Reserve (\$277,000)
 - c. Development Charges Reserve (\$50,000)
 - d. Stormwater Fee (\$1,364,400)
 - e. Utility Share (\$415,000)
 - f. Canada Community Building Fund (CCBF) (\$6,478,000)
 - g. Non-DC Growth Reserve Fund (\$795,000);

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- 6) That Staff be authorized and directed to do all things necessary to give effect to this resolution.

EXECUTIVE SUMMARY:

The Main Street Unionville Community Vision Plan (the “Vision Plan”) was a major comprehensive study undertaken by the City from 2013-2015. The Vision Plan promotes a variety of improvement projects including undertaking a streetscape beautification initiative. In 2018, Markham Council directed staff to undertake a streetscape master plan.

The development work for the streetscape master plan concept was undertaken in-house by staff with community input and advice being provided by the Historic Unionville Community Vision Committee (HUCVC).

Based on the community feedback and in consultation with internal stakeholders, a modified Concept #2 was selected as the preferred approach for the layout of the road right of way. Key features include:

- Reduced width roadway from 7.0m to 6.0m
- Widened sidewalks up to 2.0m on the east and 1.5m (with a 2.0m walkable area) on the west.
- Moving the larger boulevard to the east side of the street
- Increase tree canopy in groupings, where feasible
- Incorporate gateway ‘Nodes’ at Carlton Road (north entrance) and near the railway tracks (south entrance)
- Upgrade street lighting and incorporate heritage style poles and fixtures
- Improve East Lane lighting and parking opportunities

Other components of the preferred concept include public art and wayfinding opportunities, mobility issues, coordination of streetlights, cycling, improvement opportunities outside the study’s right-of-way boundaries and the prospect of introducing future technological advances. The staff report also indicates that section 6.2 of the Master Plan provides guidelines/direction for each component or element that is considered as part of a streetscape. For certain specific components (roadway, intersections, boulevard and sidewalk), there are optional approaches for the surface treatment of each component ranging from a basic/standard treatment to an enhanced material treatment.

The Master Plan documents offers the order of magnitude capital costs associated with seven enhancement options ranging from the status quo to using stone pavers for all surface materials. The latest cost estimate for these treatment options ranges from \$1.90M to 5.43M. The staff report proceeds to offer a more detailed examination for the different categories of the overall project cost estimates as well the pros and cons associated with the following range of design opportunities:

- **Like for like replacement** (concrete sidewalk, brick paver boulevard and asphalt road within the existing road cross section and alignment)
- **Basic Streetscape Treatment** (concrete sidewalks, boulevard pavers, asphalt road under the Modified Concept #2)

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- **Enhanced Streetscape Treatment #2** (concrete sidewalk, brick paver boulevard, asphalt road with stamped asphalt used at intersections under the Modified Concept #2)
 - **Enhanced Streetscape Treatment #3** (brick paver sidewalk and boulevard, asphalt road under the Modified Concept #2)
 - **Enhanced Streetscape Treatment #4** (stone pavers for sidewalk and boulevard, asphalt road with stone pavers used at street breaks/intersections under the Modified Concept #2)
 - **Enhanced Streetscape Treatment #6** (stone pavers used for sidewalks, boulevards and on the street under the Modified Concept #2)

The report also examines the estimated cost of other city infrastructure improvements that are required in addition to the landscape/streetscape component, as well as operating and maintenance costs and funding opportunities. Based on the information presented, staff is recommending that the Master Plan be adopted in principle, that Modified Right-of-Way Concept #2 be supported along with the improvements to East Lane, and that Council endorse Enhanced Streetscape Treatment #4 as the preferred treatment for the roadway, boulevard and sidewalks based upon the evaluation of various criteria of the identified enhancement options.

Staff are recommending that Council endorse the Main Street Unionville Reconstruction Project with an estimated Capital Cost of \$10,250,000, this includes the approval of:

- a. Modified Right of Way Concept #2 for Main Street Unionville and the East Lane parking and landscape improvements, as outlined in the Study as the basis to proceed to the next stage of the project (Detailed Design), with a capital cost estimate of \$6,390,000;
- b. Streetlighting replacement, from Highway 7 to the railway tracks, be endorsed by Council to be added as part of this project, at an estimated cost of \$410,000;
- c. Enhanced Streetscape Treatment Option #4 as the basis to proceed to the next stage of the project (Detailed Design), with a capital cost estimate of \$3,450,000;

With available funding of \$2,977,000, staff are recommending the additional \$7,273,000 funding be committed from the Canada Community Building Fund (CCBF, previously known as Gas Tax) (\$6,478,000) and the Non-DC Growth Reserve Fund (\$795,000). Committing this significant amount of funding potentially limits the opportunity to fund other City projects that are currently unfunded including Net zero initiatives, AVAC (automated vacuum collection), Markham District Energy capital project funding, Non-DC eligible sidewalk and Active Transportation Infrastructures and Underground hydro lines (can be funded from CCBF as part of a broader road reconstruction project).

Staff are also recommending that Council approve the capital budget for the Main Street Unionville Reconstruction Project, with a Capital Cost of \$10,250,000, and to be funded from the following reserves:

- a. Life Cycle Replacement and Capital Reserve Fund (\$870,600)
- b. Waterworks Reserve (\$277,000)
- c. Development Charges Reserve (\$50,000)
- d. Stormwater Fee (\$1,364,400)

- e. Utility Share (\$415,000)
- f. Canada Community Building Fund (CCBF) (\$6,478,000)
- g. Non-DC Growth Reserve Fund (\$795,000);

PURPOSE:

The purpose of this report is to provide a recommendation to DSC on the Main Street Unionville Commercial Core Area Streetscape Master Plan Study (2021), and to seek endorsement in principle of the study and its streetscape components and infrastructure.

BACKGROUND:**Main Street Unionville Community Vision Plan endorsed in principle in 2015**

The Main Street Unionville Community Vision Plan (the “Vision Plan”) study was initiated by the City of Markham at the request of the Unionville BIA in early 2013 to address specific issues impacting the ongoing success and stability of historic Unionville, and to develop new opportunities and strategies to support and enhance the village. The study process involved extensive consultation, including a well attended five-day charrette workshop held on the Main Street of Unionville.

The Vision Plan offers a bold new strategy to further enhance this regional destination area of Markham, and acknowledges that Unionville will face considerable challenges if it is to remain a vibrant commercial environment over the long term.

The Vision Plan establishes a shared concept to give direction to future investments, development and community building initiatives over the next 30 years. The Vision Statement notes that “*Main Street Unionville shall become a vibrant, thriving and successful heritage village that is a regional destination, but serves local needs*”. The Vision Plan affirms that Main Street Unionville as an entity can evolve, both in form and function, to be a contemporary traditional village, but it will take great care.

The Vision Plan and Streetscape Master Plan

The Vision Plan presented 18 recommendations some of which were short term while others are more long term in nature. One of the key recommendations was to undertake a streetscape improvement program – “*That the City take guidance from the streetscape concepts explored as part of the Vision and undertake a Streetscape Beautification initiative. A streetscape that is more comfortable, more accommodating and the re-establishment of a green canopy will contribute to the regeneration of Main Street*”. The Vision Plan offered some guidance by providing a preliminary high-level streetscape improvement concept.

On January 13, 2015 Council adopted a series of recommendations related to the Vision Plan including the following:

“That the Main Street Unionville Community Vision Plan be endorsed in principle (subject to modifications in Appendix ‘D’) ... and that the City and other affected parties/stakeholders be guided by the general direction of the Vision Plan when initiating or reviewing proposed changes in both the public and private realms of the Unionville Heritage Conservation District;”

In 2017, Operations staff was proposing to utilize lifecycle funding to undertake major rehabilitation repairs to the existing Unionville Core Area streetscape.

However, this work was put on hold, and based upon a recommendation from the Historic Unionville Community Vision Committee (HUCVC) and supported by staff, as part of budget discussions for 2018, Markham Council authorized funding to undertake a streetscape master plan.

DISCUSSION:

Stage 1 of the Streetscape Master Plan-Concept Development

It was determined by Planning and Urban Design Department staff that the first phase of the work (concept development) would be completed in-house using the skillset of city staff.

Typically, the stages of a project of this nature are:

- Stage 1- Streetscape Master Plan- Concept Development
- Stage 2- Detailed Design of Preferred Concept
- Stage 3- Prepare Specifications and Tender Document
- Stage 4- Project Management and Implementation

Stage 1 is now completed subject to Council providing direction on the recommended concept and enhancement option. Staff has received approval to retain a consultant to undertake **Stage 2- Detailed Design of Preferred Concept**, and the initial components of this work is underway. The detailed design is currently at 30%.

Stage 1-Streetscape Master Plan-Concept Development included the following phases:

- **Phase 1-Background Analysis**
 - Community and traffic context, development pressures, planning and policy context, previous work including the Vision Plan
- **Phase 2-Issues, Opportunities and Option Development**
 - Existing conditions and constraints, design principles, streetscape design concepts, appropriate streetscape components
 - Consultation with HUCVC on options and features
- **Phase 3-Public Consultation**
 - Report to Development Services Committee for review
 - Public Information meeting, input from stakeholders on 2 concepts including separate meetings with Unionville BIA, Unionville Villagers Association, staff, Accessibility Committee and Heritage Markham Committee
- **Phase 4-Preferred Concept**
 - Selection and refinement of preferred concept
 - Exploration of enhanced treatment options
 - Order of Magnitude Costing, phasing considerations
 - Report to Development Services Committee for approval

The Main Street Unionville Commercial Core Streetscape Master Plan Study (2021) is attached as Attachments “A” and “B” (separate documents).

Historic Unionville Community Vision Committee

The Historic Unionville Community Vision Committee (HUCVC) was tasked with providing community feedback, advice and assistance in the development of a streetscape master plan. The Committee was created by Council in 2015 with the mandate to assist with the overall realization of the adopted Vision Plan as well as suggest plans and projects to further its implementation and provide feedback on issues, priorities, projects, policy documents and studies.

The Committee is comprised of one representative from each of the major historic Unionville community organizations and three representatives from the Unionville Business Improvement Area (BIA) Board. There are also four community representatives and two Councillors on the Committee. The input of the Vision Committee has been very helpful in creating a design framework, principles and guidance that reflects the viewpoint of the community and respects the character of historic Unionville.

Preliminary Study Report

A Preliminary Study Report was prepared for Council consideration in late 2018 with the following three concepts developed for the road right of way (which are detailed in section 4.3 of the Study):

- Concept 1 – Refresh the Street
- Concept 2 – Modified Right of Way - Two Way Traffic
- Concept 3 – One Way Main Street

The concepts also provided options on how the former concession road located east of Main Street in the floodplain could be revised to offer additional public parking and lighting opportunities. The concepts were evaluated using 12 criteria with feedback also provided by the HUCVC. Council authorized staff to undertake further community and stakeholder consultation on Concepts 1 and 2 as well as seek feedback on appropriate streetscape components and enhancements.

Public Consultation

A comprehensive public consultation program was undertaken focused on Concepts 1 and 2 as well as soliciting public feedback on appropriate streetscape components which for the most part would be applicable for either concept. The consultation included an Open House/Community meeting, a community survey and being one of the first Markham projects to utilize YourVoiceMarkham. A summary of the consultation program is provided in Section 5 of the Study document.

In summary, the consensus of the consultation process found the following:

- Preference for Concept 2 was significantly preferred over Concept 1.
- Limit or reduce parking on the street, either by limiting to one side or restricting permitted parking times.
- Provide and enhance traffic control on the street by incorporating traffic calming measures and increase pedestrian safety. This should include improvements to the East Lane for traffic circulation and parking.
- Improve the pedestrian environment by focusing on people over vehicles. This should include wider sidewalks and street lighting improvements.

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- Aesthetic improvements to enhance and reflect the Main Street heritage and character by incorporating enhanced surface materials.

Further Consultation with Markham Council

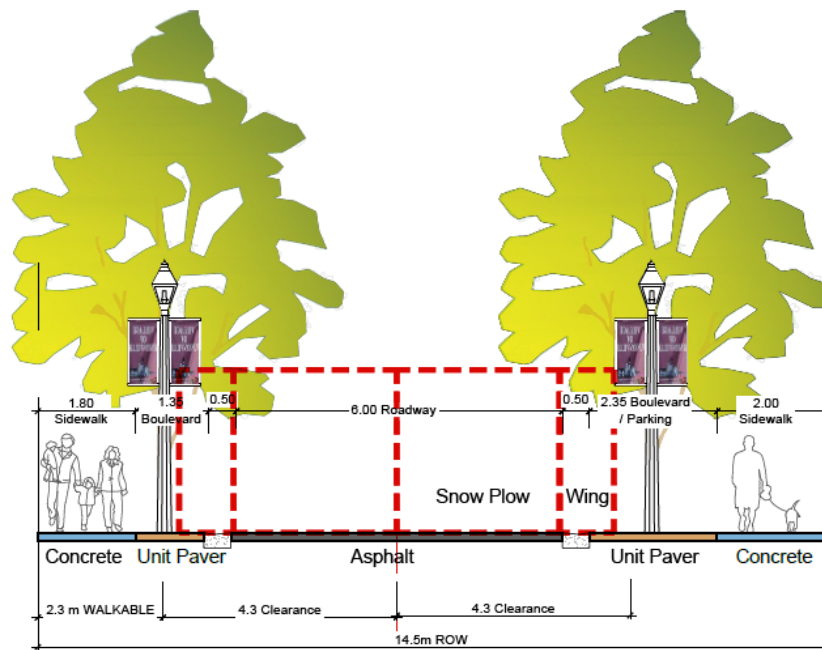
On January 23, 2020, the draft Master Plan was presented to the Unionville Sub-Committee (which included the Historic Unionville Community Vision Committee representatives). The Sub-Committee provided general feedback and recommended the endorsement of Modified Right of Way Concept #2 and Enhanced Streetscape Treatment Option #6 as outlined in the Draft Final Report. The Sub-Committee was provided with the order of magnitude costs (2019 dollars) for streetscape and landscape costs. The Sub-Committee's recommendation was referred back to staff for further consideration and a future recommendation report to Development Services Committee. In 2020, preliminary estimates to proceed with the Sub-Committee recommendations was approximately \$4 million. Pending final design, the updated estimate is approximately \$5,430,000 for Treatment Option #6.

On March 2, 2021, staff provided an update to Development Services Committee on the status of the Master Plan study and noted that work continued on finalizing order of magnitude capital costs, lifecycle and operating/maintenance costs associated with the various enhancement options. It was also noted that additional work was now being considered including improvement to underground services. Committee provided the following comment:

- Consider options for businesses to receive deliveries efficiently without impeding Main Street traffic flow;
- Concerns about the integrity of pavers/stone especially if being considered for the roadway and the need to show examples of how it has been used in Canada
- Concerns with the proposed timeframe of the construction, phasing of work and the potential impact on businesses; and,
- Ensure that any underground work such as, utility relocation, watermain upgrades, sanitary sewer and electrical are undertaken efficiently to minimize impact on the community/businesses.

Modified Right of Way Concept #2

Based on the community feedback and further consultation with staff, the preferred concept is a modified Right of Way Concept #2 (see below for illustration). Through the detailed design process there may be minor modifications to the cross section for this concept to address various issues and constraints



Concept 2 - Cross Section - 2m Sidewalk - Parking East Side

- Reduced width roadway from 7.0m to 6.0m
- Widened sidewalks up to 2.0m on the east and 1.5m (with a 2.0m walkable area) on the west.
- Transferring the larger boulevard to the east side of the street
- Resurface boulevard areas with textured aesthetic materials, i.e. at minimum - unit pavers which is the existing treatment
- Increase tree canopy in groupings, where feasible
- Incorporate gateway 'Nodes' at Carlton Road (north entrance) and near the railway tracks (south entrance)
- Upgrade street lighting and incorporate heritage style poles and fixtures
- Incorporate street amenity alcoves to include seating, bicycle storage garbage facilities and incorporate traffic calming.
- Improve East Lane lighting and parking opportunities
- Increase East Lane tree canopy

The preferred concept can accommodate approximately 23 parking spaces on the east side boulevard and does not preclude the future introduction of paid or free on-boulevard parking, if that is the will of Council. At minimum, it is recommended that parking be prohibited during summer months as it is currently. The larger boulevard was moved to the east side of the street due to minimal driveway conflicts (which exist on the west side) as well as allowing for more efficient and less disruptive delivery operations to businesses on the east side of Main Street.

Other components of the preferred concept (Included in the current cost estimate)

Streetlighting

A historic-style street light unit is recommended for the commercial component of the streetscape. Staff also noted that the proposed historic street light replacement units from Highway 7 to the railway tracks should be coordinated with the unit to be used in the commercial area. The intent of using the same streetlight units is to ensure the consistency in the street lights for this entire section of Main Street Unionville.

As part of the review for the detailed design, staff was requested by the ward councillor, to look into the inclusion of the streetlight replacement, from Highway 7 to the tracks, as the streetlights for this section of the road are similar to the ones in the commercial core area. This component is not included in the current cost estimate for the Modified Right-of-way Concept #2. Staff recommend to proceed with this extension and the incremental capital cost is approximately \$410,000.

Traffic Control at the Main Street & Carlton Road Intersection

The intersection of Main Street Unionville and Carlton Road is currently all-way stop controlled. The intersection experiences high traffic and pedestrian volumes, particularly during the warmer months of the year due to Main Street Unionville being a tourist attraction and destination for both Markham and GTA residents. The safety of this intersection was raised during the public consultation component of the master plan study.

In September 2016, an analysis was conducted at the intersection during a typical weekday period to determine if traffic signals are warranted. In accordance with Ministry of Transportation of Ontario (MTO) criteria, the following factors are considered when determining whether a traffic signal is warranted:

- Vehicular Volume & Delay
- Pedestrian Volume & Delay
- Collision Experience

The results of the analysis confirmed that the pedestrian volume & delay criteria was met, and therefore, a traffic signal would be warranted. A subsequent study was conducted in June 2019, where results indicated higher vehicular volumes than in 2016, approaching the required threshold needed to justify a traffic signal. However, the 2019 analysis also indicated that pedestrian volumes dropped by 37% and would not meet the pedestrian criteria.

Both Main Street Unionville and Carlton Road are used by motorists as commuter routes during weekday peak travel periods. During off-peak periods and on weekends during the summer period, the intersection experiences significant pedestrian crossing volumes, creating an increased exposure to being in conflict with vehicles when crossing at the intersection.

Likewise, vehicle speeds and high traffic volumes have also been a source of concern on both streets. While attempts to mitigate vehicle speeds have been undertaken (physical traffic calming, speed display boards, pavement marking enhancements), elevated traffic volumes during peak periods exists and can be partially attributed to vehicles diverting from the Regional road network.

Implementation of a traffic signal will improve right-of-way control at the intersection for both vehicles and pedestrians, such as alleviating confusion caused by the all-way stop and

simultaneous vehicular/pedestrian movements. However, a traffic signal may attract additional traffic volumes to both Carlton Road and Main Street Unionville, as the intersection will operate more efficiently than the existing all-way stop. This increased efficiency may also encourage higher speeds, as vehicles approach a “green” or “yellow” traffic signal indication. The higher speed risk could be mitigated by incorporating a traffic signal and intersection design that prioritizes pedestrians over efficient vehicular movement (measures could include not providing turn lanes, restricting right turns on red, leading pedestrian intervals, continuous cycling of phases).

It is anticipated that in the future, the traffic signal warrants will be met at this intersection. As noted above, there are benefits as well as challenges associated with implementing a traffic signal at this intersection. Therefore, staff will be designing a full traffic signal at the Carlton Road and Main Street Unionville intersection, and that the construction of only the underground works, associated with a future traffic signal be included in the project scope for construction. The above intersection will be monitored to assess the need to install the full traffic signal in the future. Staff has included a cost to pre-install the duct work required for the future traffic signal, in the amount of \$50,000 in the overall cost estimate.

Opportunities for Smart City Technology/Infrastructure

When Main Street is revitalized, the City should consider the need to accommodate future Smart Cities technology opportunities such as public WiFi, 5G cellular transmitters, digital kiosks, charging station, etc. During detailed design, discussions will be held concerning opportunities to run fibre in this area beyond municipal facilities. If considered pre-mature at this time, the City could consider introducing an empty conduit under Main Street while it is excavated for future infrastructure. Given the small size of the Main Street commercial area, this could be an excellent location to pilot any number of technologies for public spaces that could eventually be introduced to other city location if appropriate.

Improvements to East Lane

The East Lane municipal right-of-way improvement would introduce approximately 12 additional parking spaces. These improvements will be addressed as part of the Main Street project. It would include:

- Improving the tree canopy by greening some existing asphalt surface areas
- Increasing lighting levels with the addition of heritage style poles and fixtures
- Reorganizing the parking layout to increase capacity and improve circulation
- Accommodating traffic/circulation for events and special occasions, especially when Main Street is closed to vehicular traffic.

Improvements to East Lane has been costed as a separate option, but is recommended in this report to be undertaken as part of this project.

Public Art, Gateways and Wayfinding

Sections 6.1.2 and 6.1.3 of the Master Plan Study also identifies potential public art and wayfinding locations, which are primarily located on adjacent city property given the constrained right-of-way. Markham’s Public Art Master Plan identifies certain areas within the streetscape study area as public art site types such as the **Varley Art Gallery Courtyard and Main Street Unionville** (Site Category 1- Key Existing City Sites, Gateways and Heritage

Areas), **Stiver Mill Garden** (Site Category 3 – Community Parks and Trails) and the **Main Street Unionville Streetscape** (Site Category 4 – Streetscape and Transit). Culture staff are proposing a report for Q2 2022 Development Services Committee to present public art opportunities on Main Street Unionville that could be further explored as part of the detailed design component of the project. The Public Art component of the project is not included in the current cost estimates in this report. A separate funding source for the Public Art for Main Street Unionville is identified in the Public Art Implementation Plan.

Wayfinding systems will included as part of the detailed design scope with the involvement of public realm and operations staff, and should consider consistent wayfinding standards and coordination with local, regional and federal bodies such as York Region and Parks Canada.

Unionville Main Street (Commercial Core) has been identified in the Gateway Master Plan as an Internal Gateway (Heritage District). The Streetscape Master Plan identifies gateway opportunities using enhanced grouping of tree planting (as opposed to physical elements) at Carlton Road/Main St, Victoria Ave/Main St and Station Lane/Main St.

Mobility Issues

In response to the absence of easy access for those with mobility challenges from the parking areas in the floodplain, the Study suggests that one or more short term loading locations be identified and signed near along the commercial streetscape (east side). This would allow those with mobility issues or those with strollers to be dropped off prior to the vehicle securing parking elsewhere.

Treatment Outside of the Right-of-Way

The Master Plan recommends that the small municipal parkette at 185 Main Street located at the top of the stairs providing access to the lower east parking lots should be considered part of the streetscape project and treated with a consistent and enhanced surface treatment.

Although not within the scope of the Master Plan study, it is noted that for possible consideration is an option to provide an enhanced design treatment to the road, boulevard and sidewalk both to the east and west of the Carlton Road/Main Street intersection. This could include the area adjacent to the Varley Art Gallery and the area leading to the Carlton Road bridge.

Cycling

Separate cycling lanes could not be accommodated due to the constrained and limited right-of-way width.

Victoria Avenue Intersection

Modification to the existing intersection layout at Victoria Ave/East Lane/Main Street was not pursued as it was determined that the existing configuration is reflective of the heritage character typically found in a village setting and in fact helps tell the unique story of the development and growth of historic Unionville.

Streetscape Components and Elements

Section 6.2 of the Master Plan Study provides guidelines/direction for each streetscape component or element. For specific components (roadway, intersections, boulevard and

sidewalk), there are optional approaches ranging from a basic treatment to an enhanced treatment. These approaches are further detailed in Figure 2 of this report.

Direction is also provided for the following streetscape elements in Section 6.2 of the Master Plan Study and should provide general guidance in the preparation of the detailed design component:

| | | |
|-------------------------------------|--|-------------------------|
| • Street Lighting | • Utilities | • Curbs |
| • Traffic Signalization | • Electrical Requirements for BIA/Festivals | • Accessibility |
| • Identifiable Pedestrian Crossings | • Trees & Vegetation, Tree Grates, Tree Guards | • Irrigation |
| • Retaining Walls | • Street Furniture, Benches, Waste Receptacles, Bicycle Racks, Banners | • Active Transportation |
| • Seasonal Baskets, Wooden Poles | • Wayfinding, Public Art and Historical Interpretive Panels | • Bus Shelters |
| • Gateway Features | • Winter Lighting | • WiFi, Infrastructure |

Streetscape Treatment Options

In addition to the basic/current treatment, there were six iterations or combination of streetscape treatment/ enhancement options explored for Main Street as part of the Master Plan. The latest cost estimate of these options (design treatment only) ranges from \$1.90M to \$5.43M based on the materials selected:

| Streetscape Treatment Option | Description |
|------------------------------|--|
| Like for like Replacement ** | Keep the same right-of-way and complete rehab on sections of the sidewalk and boulevard. Remove and replace asphalt. |
| Basic | Replace road, sidewalks and boulevard treatments to current standard (asphalt, concrete sidewalks and boulevard unit pavers) with improved historic-style lighting, and increased tree canopy. |
| Enhancement 1 | Provide the 'Basic Treatment' and include coloured stamped asphalt as decorative breaks in the roadway and at two main intersections. |
| Enhancement 2 | Provide the 'Basic Treatment' with coloured stamped asphalt improvements just at two intersections. |
| Enhancement 3 | Provide the 'Basic Treatment' with upgraded unit paver sidewalk |
| Enhancement 4 | Provide the 'Basic Treatment' with stone paver upgrade to boulevard, and sidewalk areas. Road remains as asphalt with stone pavers used to provide street breaks in the roadway and used at the two intersections. |
| Enhancement 5 | Provide the 'Basic Treatment' with stone paver upgrade to boulevard, and road areas. Sidewalks remain as concrete. |
| Enhancement 6 | Provide the 'Basic Treatment' with stone paver upgrade to boulevard, road and sidewalk areas. |

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| Note** | Like for Like replacement option was not explored in the Master Plan study once Modified Concept 2 was selected as the preferred approach |
|---------------|--|

An illustration of each Enhancement treatment is provided in Figure 2.

It is anticipated that there would be minimal difference in the amount of construction time associated between the various streetscape treatment enhancement options.

During the Master Plan study process, the following have indicated support for the Modified Concept #2 (cross-section) for Main Street Unionville and enhancement treatment #6 (see illustration):

- Heritage Markham Committee (Feb 12, 2020)
- Unionville Sub-Committee (January 23, 2020) which included the Historic Unionville Community Vision Committee which now meets as part of the Unionville Sub-Committee.
- Unionville Residents Association (URA) (June 3, 2020)
- Unionville Business Improvement Area (BIA)
- Local Unionville Councillor

The above support was offered prior to the overall costs of the entire project being finalized.

Streetscape Treatment Option Analysis Over the last few months, further investigative work was undertaken to determine the overall order of magnitude cost of the project (underground works and other infrastructure improvements) and what funding opportunities were available. See the Financial Considerations Section.

Staff has been undertaking a more detailed examination of the capital costs and potential lifecycle/operations & maintenance costs associated with five of the enhancement options:

- **Like for Like Replacement**
- **Basic Streetscape Treatment**
- **Enhanced Streetscape Treatment #2**
- **Enhanced Streetscape Treatment #3**
- **Enhanced Streetscape Treatment #4**
- **Enhanced Streetscape Treatment #6**

Treatments options #1 and #5 were not further investigated due to their similarity to other options being costed.

The pros and cons of the above five options under consideration for surface treatments are summarized in Figure 3.

Brick Unit Pavers in the Roadway

Members of the Development Services Committee previously expressed some concern regarding the suitability and integrity of brick or stone pavers especially if they are being

considered for the roadway and the need to show examples of how it has been successfully used elsewhere in Canada for both pedestrian and vehicular traffic.

Previously in Markham, as part of the Markham Village streetscape revitalization project, a brick unit paver treatment was introduced at the Robinson and Main St N intersection to create a “festival Square” area and at select pedestrian crossings on Main St. These installations were not successful with the crosswalk bricks and those used at the Main St/Robinson St intersection prematurely failing (sinking and popping out), and were later removed and replaced with asphalt and impressed asphalt. The City hired an independent investigative consultant specializing in paver design (Applied Research Associates- ARA) to undertake an investigation into the failure of the pavers and provide recommendations for future consideration.

The conclusion is that pavers in a roadway can be successful if the project is designed correctly and installed properly. Staff also found that pavers have been successfully used recently in the roadway of other Canadian municipalities including Halifax, London, Toronto, North Bay, Belleville and Oakville. See Figure 6 for further details on these projects.

However, it is important to note that following the failure of brick pavers within the Markham Village roadway, staff had adopted a practice of not implementing pavers within the roadway.

Impressed Coloured Asphalt within the Roadway

It is important to note that on Main Street Markham as well as other locations within Markham (Speed tables / hump in Ward 1), impressed coloured asphalt paving has been introduced to provide a decorative and enhanced treatment to pedestrian crossings, and has been well received. This treatment provides a brick-like appearance, but it has a lower cost to implement and has also performed very well from an operations and maintenance perspective. The pros and cons of the use of both brick/stone pavers and impressed coloured asphalt are explored in Figure 3 of this report.



*Illustration of Impressed Coloured Asphalt within the Roadway***Project Schedule**

The following is the proposed schedule for the Main Street Unionville Reconstruction Project:

- Utility relocation work – Q2 to Q4 2022
- Completion of Detailed Design – Q1 2023
- Tender – Q2 2023
- Approval of Environmental Permits (TRCA / MOE) – Q1 2023
- Anticipated construction start date – Q2 2023 (Subject to review with BIA / stakeholders)
- Tentative Completion Date – Q4 2024 (Subject to review with BIA / stakeholders)

FINANCIAL CONSIDERATIONS**Overall Project Costs**

During the Master Plan Study, staff were initially advised that no underground work would be necessary. However, since then, there have been a number of investigations completed by Environmental Services staff that identified the need to replace or upgrade the existing municipal infrastructures on Main Street (at present or in the near future).

The order of magnitude cost estimate prepared for this report has been provided by the design consultant, and is based on preliminary information and is broken down based on the following:

Modified Right-of-way Concept #2 and Other City Infrastructures
(\$6,390,000, including \$2,864,800 of available funding)

- Replacement of all curbs, sidewalks, and boulevard pavers (like for like)
- Reconstruction of asphalt surface
- Storm sewer upgrades at select locations, as per the Markham Village Flood Study
- Watermain replacement at select locations to replace ductile iron pipes with PVC
- Streetlight replacement as per streetlight replacement program (Carlton Road to the Railway Tracks)

Advancement of the Streetlight Replacement from Railway Tracks to Hwy 7 (\$410,000, including \$112,200 of available funding)

Note that the concrete curbs and sidewalk, and boulevard pavers are included as part of the City's current road rehabilitation program. Operations Department deferred the rehabilitation works in 2017, in anticipation of the Main Street Unionville project.

The replacement and upgrades of other municipal infrastructures are being advanced for coordination purposes with the works outlined for the Main Street Unionville project. The original timelines for the replacement and upgrades of the above-noted municipal infrastructure are as follows, subject to conditional assessment:

- Streetlight replacement – 2032 to 2037
- Watermain replacement – 2028 to 2030
- Storm sewer upgrades – 2028 to 2030

Landscape / Streetscape Treatment Options
(Cost ranging from \$1,900,000 to \$5,430,000)

- Incremental increase from concrete sidewalk to unit paver / stone paver
- Incremental increase from existing boulevard unit paver to new unit paver / stone paver
- Incremental increase from roadway asphalt to stone pavers
- Tree pits, as required
- Wayfinding systems
- Others

The following items are listed in the Main Street Unionville Community Vision Plan, but are not included in the current scope for the detailed design of the Main Street Unionville Reconstruction Project:

- The introduction of Public Art
- Stairwell at 185Main Street

Note that these cost estimates are order of magnitude estimates and will be further refined as the detailed design of the project advances. The current cost estimates are based on a 30% design with a 25% contingency.

| Streetscape Treatment Options* | Overall Project Capital Costs | Streetscape Treatment Component | Incremental Annual O&M Cost * |
|---------------------------------------|--------------------------------------|--|--|
| Like for Like Replacement | \$2,562,000 | N/A | N/A |
| Basic | \$8,700,000 | \$1,900,000 | \$19,000 |
| #2 | \$8,800,000 | \$2,000,000 | \$30,000 |
| #3 | \$8,920,000 | \$2,120,000 | \$43,000 |
| #4 | \$10,250,000 | \$3,450,000 | \$103,500 |
| #6 | \$12,230,000 | \$5,430,000 | \$271,000 |

The incremental annual O&M costs are in addition to the current O&M cost for the like for like replacement option.

All options with the exception of the like for like replacement include the capital cost estimate to reconstruct the road using the Modified Concept #2 with no enhanced streetscaping at \$6,390,000 as well as the estimated cost to extend the streetlighting from the Tracks to Hwy & at \$410,000.

Operating and Maintenance *

A number of municipalities in Canada who had undertaken similar streetscape enhancement projects, were contacted to develop appropriate operation and maintenance cost estimates. Staff have found that these municipalities have vastly different approaches to operations and maintenance activities including some municipalities who did not have any cost estimates figures for operations and maintenance. As a result, our design consultant offered another approach in the development of operations and maintenance cost estimates, which was based on using a percentage of the capital costs ranging from 3% to 5%. Staff have reviewed the consultant's findings and recommendation and after further consulting with internal stakeholders staff have developed annual incremental increase in costs for operations and maintenance for each option as reflected on the table above.

Staff will continue to work with the consultant and the Operations, Environmental Services and Finance Departments to refine the operations and maintenance costs and possible impacts of any future work within the right-of-way (i.e. utility cuts, servicing works, etc.). Staff will identify the incremental O&M costs associated with the enhanced streetscaping option at construction award.

Funding Sources

Based on review of the City's replacement and upgrade programs, the available funding for Main Street Unionville Reconstruction Project is \$2,977,000. The funding is from the Life Cycle, Waterworks Reserve, Storm water fees, Development Charges and utility company's share of the utility costs.

The following table reflects the overall cost, available funding and funding requirements for each of the concepts:

| Option * | Overall Cost | Available Funding | Funding Requirement |
|---------------------------|---------------------|--------------------------|----------------------------|
| Like for Like Replacement | \$2,562,000 | \$2,562,000 | \$0 |
| Basic | \$8,700,000 | \$2,977,000 | \$5,723,000 |
| #2 | \$8,800,000 | \$2,977,000 | \$5,823,000 |
| #3 | \$8,920,000 | \$2,977,000 | \$5,943,000 |
| #4 | \$10,250,000 | \$2,977,000 | \$7,273,000 |
| #6 | \$12,230,000 | \$2,977,000 | \$9,253,000 |

After examining various funding sources available to the Corporation, Staff are recommending if Council endorses a preferred enhancement option that the outstanding funding requirement be funded from the Canada Community Building Fund (CCBF, formerly Federal Gas Tax) and the Non-DC Growth Reserve. As a general policy, the City earmarks CCBF towards life cycle replacement projects as a strategy to mitigate available funding for replacement costs. The streetscape project does not meet the City's more restrictive policy of using CCBF, although it does meet the CCBF guidelines. Over the last two years, the Federal government has provided two additional \$10 million funding allocation to the City, in addition to their annual allocation. The City allocated the first additional funding to repair and replacement projects following the usual policy. There remains \$10 million available from the most recent \$10 million funding which may be considered.

Staff are seeking approval to commit \$6,478,000 of CCBF reserve and \$795,000 of Non-DC Growth reserve towards the Unionville Mainstreet Modified Concept #2 Right-of-Way with the Enhanced Streetscape Option #4 and with the extension of the streetlights from Highway 7 to the railroad tracks.

Note that there is a limited available funding in the CCBF reserve. By committing funds to Main Street Unionville Reconstruction Project, it impacts funding that can be used to top-up general life cycle projects, and other future City initiatives. Other unfunded projects under consideration, some that meet the CCBF use criteria, are:

Projects Eligible for CCBF

- Net zero initiatives
- AVAC (automated vacuum collection)
- Markham District Energy capital projects
- Non-DC eligible sidewalk and Active Transportation Infrastructures
- Underground hydro lines (can be funded from CCBF is part of a broader road reconstruction project)

Projects Ineligible for CCBF

- Establishing a Parking Authority
- Public Art
- Public Realm

Engineering Capital Administration Funding

As part of the overall cost estimate provided in this report, a component of the costs is associated with the Engineering Department's Capital Admin Fees. The cost estimate for the Capital Admin Fee associated with this project is \$795,000, and is not eligible to be funded from the CCBF, as such, staff is recommending that the Capital Admin Fee be funded from the Non-DC Growth Reserve.

2022 Capital Budget

Based on the review of the overall project schedule, as well as the process and approvals for 2023 capital budget, staff is recommending approval of a new 2022 Capital Project for the Main

Street Unionville Reconstruction Project in the amount of \$10,250,000. The project is recommended to be funded from the following sources:

| Reserve | Amount |
|---|----------------------|
| Life Recycle Replacement and Capital Reserve Fund | \$ 870,600 |
| Waterworks Reserve | \$ 277,000 |
| Development Charges | \$ 50,000 |
| Stormwater Fee | \$ 1,364,400 |
| Utility Share | \$ 415,000 |
| Canada Community Building Fund (CCBF) | \$ 6,478,000 |
| Non-DC Growth Reserve Fund | \$ 795,000 |
| Total: | \$ 10,250,000 |

Evaluation of Streetscape Treatment Enhancement Options

Staff has prepared an evaluation matrix that rates each of the streetscape enhancement options from a variety of perspectives.

| Colour | Associated Criteria |
|---------------|---|
| Green | - significant improvement - significant enhancement - low expenditure of funds |
| Yellow | - similar to existing situation - minor impacts or disruption - minor improvements / enhancements -medium expenditure of funds |
| Red | - worse than existing situation - major impact or disruption - below optimum |

| Option | Overview |
|-----------------------------|---|
| Like for Like (\$0M) | Sidewalk - concrete; Blvd - unit pavers; Road - asphalt; Intersections -asphalt (within the existing road cross section and alignment) |
| Basic (\$1.90M) | Sidewalk - concrete; Blvd - unit pavers; Road - asphalt; Intersections –asphalt (under Modified Concept #2) |
| 2 (\$2.00M) | Sidewalk - concrete; Blvd - unit pavers; Road - asphalt; Intersections –colour stamped asphalt (under Modified Concept #2) |
| 3 (\$2.12M) | Sidewalk & Blvd - unit pavers; Road - asphalt; Intersections - asphalt(under Modified Concept #2) |
| 4 (\$3.45M) | Sidewalk & Blvd - stone pavers Road - asphalt with stone pavers at street breaks; Intersections - stone pavers. All on concrete base(under Modified Concept #2) |
| 6 (\$5.42M) | Sidewalk, Blvd & Road - stone pavers. All on concrete base (under Modified Concept |

- high expenditure of funds

| Perspective | Like for Like | Basic | #2 | #3 | #4 | #6 |
|-----------------------------|---------------|-------|----|----|----|----|
| Heritage Character | | | | | | |
| Destination Attraction | | | | | | |
| Accessibility | | | | | | |
| Traffic Calming (roadway) | | | | | | |
| Pedestrian Safety (roadway) | | | | | | |
| O&M Costs | | | | | | |
| Capital Costs | | | | | | |

Based on the above evaluation matrix, the least desired streetscape treatment option is Streetscape Option #3, while Streetscape Treatment Option #4 appears to be the most favourable option with respect to the above associated criteria.

CONCLUSIONS

Based on the findings of the Streetscape Master Plan (and the previous Unionville Community Vision Plan of 2015), there is a general consensus among all staff and stakeholders that the Unionville streetscape needs to be upgraded and revitalized. The last improvement to its design treatment occurred in 1985. There is also wide support for Modified Right of Way Concept #2 (including a reduced vehicular area, shifting the larger boulevard to the east side, new historic style lighting and introducing trees where feasible) and undertaking improvements to East Lane. Based on the city's desired vision for Unionville staff are seeking endorsement and acceptance from Council on the Modified Right of Way Concept #2 and Streetscape Treatment Enhancement #4 as the most appropriate streetscape enhancement option to be implemented on Main Street.

HUMAN RESOURCES CONSIDERATIONS

N/A

ALIGNMENT WITH STRATEGIC PRIORITIES:

Aligns with the strategic focus on appropriate Growth Management for improvements in support of a Community Vision Plan for an identified area.

BUSINESS UNITS CONSULTED AND AFFECTED:

Input was obtained from Operations Department, Environmental Services Department, Finance Department, Heritage Markham Committee and the Historic Unionville Community Vision Committee

RECOMMENDED BY:

Biju Karumanchery, MCIP, RPP
Director, Planning and Urban Design

Frank Clarizio, P. Eng.
Director, Engineering

Arvin Prasad, MCIP, RPP
Commissioner of Development
Services

ATTACHMENTS:

Figure 1 – Study Area Boundary

Figure 2 – Optional Approaches for Roadway, Intersection, Boulevard and Sidewalk
Treatments – Illustration of Enhancement Treatments

Figure 3 – Pros and Cons of Surface Treatment Options

Figure 4 – Support Letter – Unionville BIA

Figure 5 – Support Letter – Unionville Residents Association

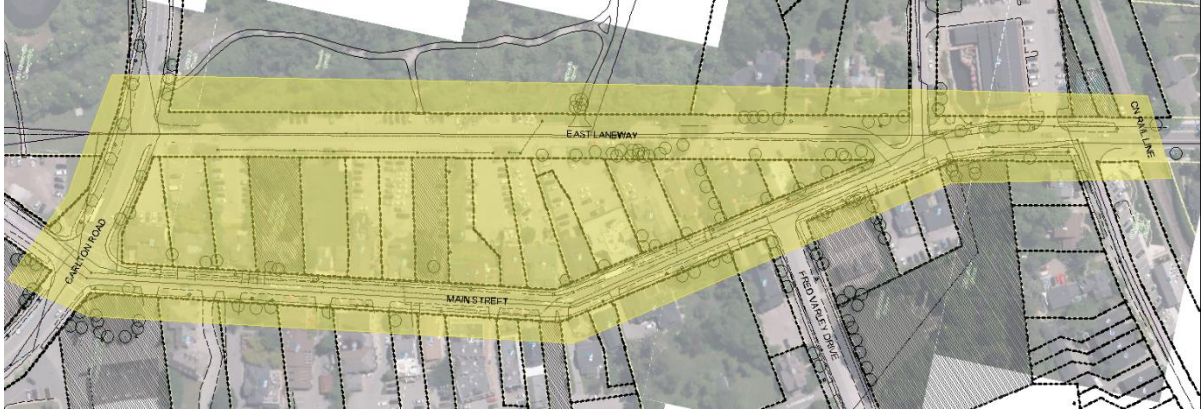
Figure 6 – Examples of Streetscape Treatment from other Municipalities

Attachment 'A' - Main Street Unionville Commercial Core Streetscape Master Plan 2021
Study Report, September 2021 (Separate Document)

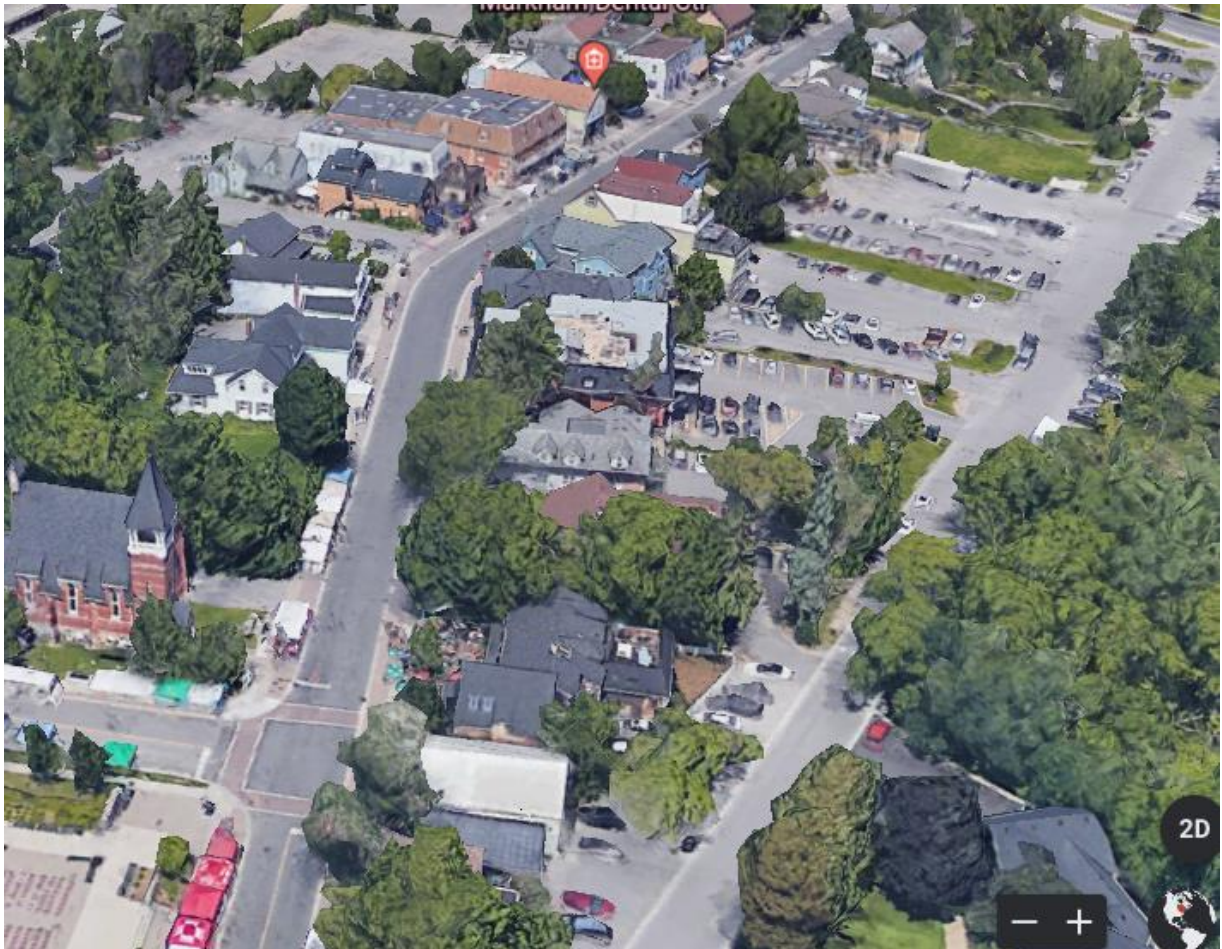
Attachment 'B' - Main Street Unionville Commercial Core Streetscape Master Plan 202,
Appendices, January 2020 (Separate Document)

File Path: Q:\Development\Heritage\SUBJECT\Unionville Core Area Streetscape Master Plan
2018\Final Staff Report\DSC Feb 22 2022 Main Street Report 211215 DRAFT REV2 RJH
Clean Copy Feb 1 .doc

FIGURE 1 Study Area Boundary and Photographs



Main St between Carlton Road (left) and Railway Tracks (right)



Google Earth - Main Street looking north at Fred Varley Drive

FIGURE 2**Optional Approaches for Roadway, Intersection, Boulevard and Sidewalk Treatments****Roadway Treatment****Approach A – Basic Treatment**

- Standard black asphalt is used for the main vehicular areas for driving.
- Certain areas such as at intersections could have alternative materials.

Approach A-1 – Basic Treatment Alternative

- Standard black asphalt is used for the main vehicular area for driving except for eight breaks in the pavement that introduce coloured stamped asphalt in a neutral colour. These are not official road crossing areas, but instead provide a visual impact that may slow down traffic due to the change of materials.
- A concern was raised regarding the use of impressed or stamped asphalt as it degrades faster than regular asphalt and colour matching is challenging when maintenance is required.
- There is also the issue of these changes in surface treatment potentially providing pedestrians with a false sense of security when crossing the street, perhaps mistaking them for crosswalks.
- The idea of creating breaks (“rooms”) in the road asphalt for traffic calming may not support the principle of maintaining a rural/village character that is not overly designed.

Approach B – Enhanced Treatment

- Natural stone pavers in a neutral colour is used for main vehicular areas for driving.
- Stone would need to be on a concrete base, surrounded by a concrete flush curb.
- There is a concern that paver stones move over time and require special consideration when using a snow plough blade.

Intersection Treatment**Approach A-1 – Basic Treatment**

- Standard black asphalt is used for all intersections.

Approach A-2 – Basic Treatment Alternative

- Focus any special design treatment to 2 key intersection not all intersections (only Carlton Road and Fred Varley Drive).
- The internal component of the intersection could be decorative and treated with coloured and textured asphalt with the pedestrian crossing paths in white concrete. Internal colour to be determined.
- Colour of internal intersection would be same as /or complementary to the boulevard treatment.
- This should help improve intersection safety by encouraging drivers to slow down.
- There is the concern regarding the use of impressed or stamped asphalt as it degrades faster than regular asphalt and colour matching is challenging when maintenance is required.

Approach B – Enhanced Treatment

- Natural stone pavers in a neutral colour, but different than the main roadway, for the internal component of the intersection. Pedestrian crossing paths would also be stone using the same treatment as used for sidewalks.
- Stone would need to be on a concrete base, surrounded by a concrete flush curb.

Boulevard Treatment

Approach A – Basic Treatment

- Surface treatment would be a traditional brick size pre-cast unit paver on a concrete base.
- Colour- should from the heritage family of colours
- If parking is to be included in boulevard areas, should consider using a different colour paver to delineate parking spaces.
- Structural soils may be required to support introduction of trees

Approach B – Enhanced Treatment

- Natural stone pavers in a neutral colour for the boulevard treatment with a concrete base. The treatment (colour/size) would be different than the sidewalk and roadway treatments (if used in these locations).

Sidewalk Treatment

Approach A – Basic Treatment

- Concrete sidewalks with a decorative paver adjacent to the concrete curb.
- A 2.0 m wide sidewalk, where feasible, due to amount of pedestrian traffic notwithstanding this is not reflective of historic conditions.
- Concrete sidewalk treatment should continue through driveway areas.
- Do not recommend tinting the concrete.
- As the commercial buildings often do not have a consistent setback, it would be advisable to also work with property owners to introduce concrete treatment up to the building façade. This may also assist in making commercial businesses more accessible.

Approach B – Enhanced Treatment

- Natural stone pavers in a neutral colour for a 2.0 m sidewalk treatment. The treatment would be different than the boulevard treatment.
- Sidewalk treatment should continue through driveway areas
- As the commercial buildings often do not have a consistent setback, it would be advisable to also work with property owners to introduce decorative treatment up to the building façade. This may also assist in making commercial businesses more accessible.

Enhancement Treatment Illustrations

Basic – concrete sidewalk, brick pavers in boulevard and asphalt on the roadway



Enhancement #1 – Basic (as seen above) plus introduce stamped coloured asphalt at two intersections and decorative breaks in the street pavement



(Peel Region intersection)



Enhancement #2 – Basic plus stamped coloured asphalt at two intersections (see above) but keep the roadway as asphalt

Enhancement #3 – Basic (asphalt roadway and unit pavers on boulevard) plus unit pavers as the sidewalk treatment instead of concrete.



(Downtown Lindsay, ON, 2021)

Enhancement #4 – Basic with stone treatment to sidewalk and boulevard plus selective stone treatment breaks introduced into the asphalt roadway



(Unionville Illustration)

Enhancement #5 – Basic with stone treatment to boulevard and entire roadway with the sidewalk remaining as concrete



(Unionville Illustration)

Enhancement #6 – different stone pavers treatments are used for the sidewalk, the boulevard and the entire roadway.



(Unionville Illustration)



(Downtown London, ON, 2021)



(Argyle Street, Halifax, 2019)

FIGURE 3 – PROS AND CONS OF SURFACE TREATMENT OPTIONS

The chart below provides a brief summary of the pros and cons of the five options under consideration for surface treatments.

| Streetscape Treatment Options | Features | Pros | Cons |
|--------------------------------------|--|--|--|
| Basic | Sidewalk – concrete Boulevard – unit pavers Road – asphalt Intersections -asphalt | - least expensive to construct and maintain - concrete and asphalt are durable and traditional materials - concrete enhances accessibility | - generally reflects current conditions , least aesthetic option that does not address the 2014 Vision plan which suggested the street needs to be further enhanced |
| #2 | Sidewalk – concrete Boulevard – unit pavers Road – asphalt Intersections – coloured stamped asphalt | - same comments as Basic - offers aesthetic improvement to intersection treatment | - same comments as Basic - concern with the use of impressed or stamped asphalt as it may degrade faster than regular asphalt and colour matching is challenging |
| #3 | Sidewalk – unit pavers Boulevard – unit pavers Road – asphalt Intersections- asphalt | -offers aesthetic improvement to sidewalk- boulevard and sidewalk are unified | - potential trip hazard on sidewalk due to shifting pavers - unit pavers appear to require more maintenance than concrete |
| #4 | Sidewalk – stone pavers Boulevard – stone pavers Road – asphalt with stone pavers at street breaks Intersections – stone pavers All on concrete base | - boulevard and sidewalk are unified - stone pavers are more aesthetic and reflect Unionville's regional destination status - stone pavers can enhance heritage character - longevity of stone pavers outlasts all other materials - pavers in the street encourages lower traffic speeds (traffic calming) - comes close to meeting the objective of the Vision Plan | - if stone is used in selected areas, may need special attention for snow removal to avoid damage and may lead to higher winter salt usage - higher capital, operating, maintenance and life cycle costs - need to ensure pavers in the road are installed correctly (issues from the Markham Village project) - Concern that stone paver street breaks in the asphalt may provide a false sense that these are pedestrian crossing areas - Possible material supply issues if stone pavers are to be used for future maintenance repair or replacement - Vehicular travel over pavers increases noise and must be carefully chosen to avoid slippery surfaces. - Need to ensure sidewalk pavers provide a uniform surface/ non-slip |
| #6 | Sidewalk – stone pavers Boulevard – stone pavers Road – stone pavers | - creates a unified streetscape (seamless) - signifies a special place in Markham (transforms | - Highest capital, operating and life cycle costs - may need special attention for snow removal to avoid damage |

| Streetscape Treatment Options | Features | Pros | Cons |
|-------------------------------|---|---|--|
| | <p>Intersections – stone pavers</p> <p>All on a concrete base</p> | <p>its function from merely being a roadway)</p> <p>Becomes a flex street - seamless space that allows for more pedestrian priority and for the area to be closed off for events. Creates park space out of a road</p> <ul style="list-style-type: none"> - unique treatment that has only been used selectively - longevity of stone pavers outlasts all other materials - pavers in the street encourages lower traffic speeds | <p>and may lead to higher winter salt usage</p> <ul style="list-style-type: none"> - need to ensure pavers in the road are installed correctly (issues from the Markham Village project) -Possible material supply issues if stone pavers are to be used for future maintenance repair or replacement - Vehicular travel over pavers increases noise and must be carefully chosen to avoid slippery surfaces. - Need to ensure sidewalk pavers provide a uniform surface/ non-slip |
| | | | |

FIGURE 4- SUPPORT LETTER – Unionville BIA



Mr. Regan Hutcheson
Heritage Markham

Re: Main Street Unionville Streetscape Plan

Dear Regan,

Please note that following your presentation of all Main Street Unionville Streetscape options, the Unionville BIA Board supports Enhanced Option #6.

We truly feel this option will help bring our street back to the beautiful, vibrant street it once was and encourage thousands more visitors per year, benefitting our small businesses, and in turn our entire community.

Thank you



Niina Felushko
Chair, Unionville BIA

FIGURE 5 – SUPPORT LETTER – Unionville Residents Association



"YOUR VOICE MAKES OUR VOICE STRONGER"
<http://unionvilleresidents.ca>

Councillor Reid McAlpine
Ward 3, Markham
Via email: rmcaldine@markham.ca

June 3, 2020

Dear Councillor McAlpine:

URA Endorsement of Main Street Unionville Streetscape Enhanced Concept 2

At the URA members meeting of February 3, 2020, the following motion was passed:

3.1 Main Street Streetscape Project (Jóska Zérczi)

Jóska presented two streetscape options the City is considering for Main Street. Concept 1 maintains the same street width while Concept 2 features a narrower roadway with wider sidewalks. Concept 2 also moves parking to the eastside of the street. A variation considered for both options is the "Enhanced Treatment" where paver blocks are used for road surfaces instead of asphalt. A concern raised was the effect a narrower roadway would have on delivery vehicles and traffic flow. Next steps are the completion of detailed engineering plans for the selected option. The current budget of \$4.06M includes the additional cost of pavers.

Motion: The URA supports Concept 2 and the enhanced treatment paver block road surface.

Moved by Jóska Zérczi

Seconded by Peter Miassek

In a show of hands, the motion was approved by a vote of 19 for and 12 against
Motion carried.

Yours truly,

Peter Miassek

Peter Miassek, Past President

FIGURE 6 – Examples of Streetscape Treatment from other Municipalities**Examples of Streetscape Treatment from other Municipalities****Halifax, NS**

- Streetscape consists of full unit paving from building face to building face.
- Paving and streetscape elements designed to delineate roadway from public realm
- No curbs in design, trench drains used for storm water
- Co-ordinated streetscape furnishings package
- Trees both in ground and in raised metal box planters
- Entrance/gateway features installed



- Important to create a maintenance manual for upgraded streetscapes that have new/enhanced maintenance protocol
- 2-5% of capital cost targeted annually for ongoing maintenance, not based on science but the idea to ask for more upfront

London, ON

- **Four block revitalization** streetscape through downtown area; **740m in length** – Dundas Street (central downtown east-west business corridor)
- **\$16 Million dollar** project to complete **London's first "Flex Street"** (opened at the end of 2019)
- Still ongoing, to be completed in 2020
- Features: **pavers in roadway encourage lower speeds**, **extra-wide sidewalks**, **no curbs** (which benefits delivery people, to parents with strollers to those using mobility devices), **mid-block pedestrian cross-overs**, and **special lighting**. **700,000 interlocking brick** pavers were used. Textured pavers guide people with visual impairments.
- Objective: *"A flex street is seamless space that allows for more pedestrian priority and for the area to be closed off for events. It really creates park space out of a road"* (Britt O'Hagan, Manager of City Building and Design)
- *"The primary goal is to make Dundas the most exciting street in London by creating a really vibrant pedestrian and public space, along with a rich retail and restaurant environment"*.
- Included replacement of all underground infrastructure as well (water, sewer, utility and telecommunications)
- Importance in understanding the needs of operations to maintain enhanced street and to obtain special equipment (plows with special blades for unit pavers) for maintenance
- **Creating a maintenance manual is paramount**





Oakville, ON

- Six block revitalization streetscape through downtown area; 690m in length
- Completed fall 2020 with this winter (2020/2021) being the first season
- Streetscape consists of granite unit pavers/curbs within the planting/furniture zone and concrete paving in the pedestrian walk
- Flex street with no curbs, bollards and unit paving at ceremonial intersection
- Full suite of streetscape furniture and trees within silva cells
- Not an estimated percentage built into the capital costs but there was approximately 10% of materials put into stock such as pavers and curbing in the event pieces needed to be replaced/repared in the future
- The existing level of winter service has remained the same except for the addition of hand snow clearing due to increase in street furniture





Toronto, ON (Market Street)

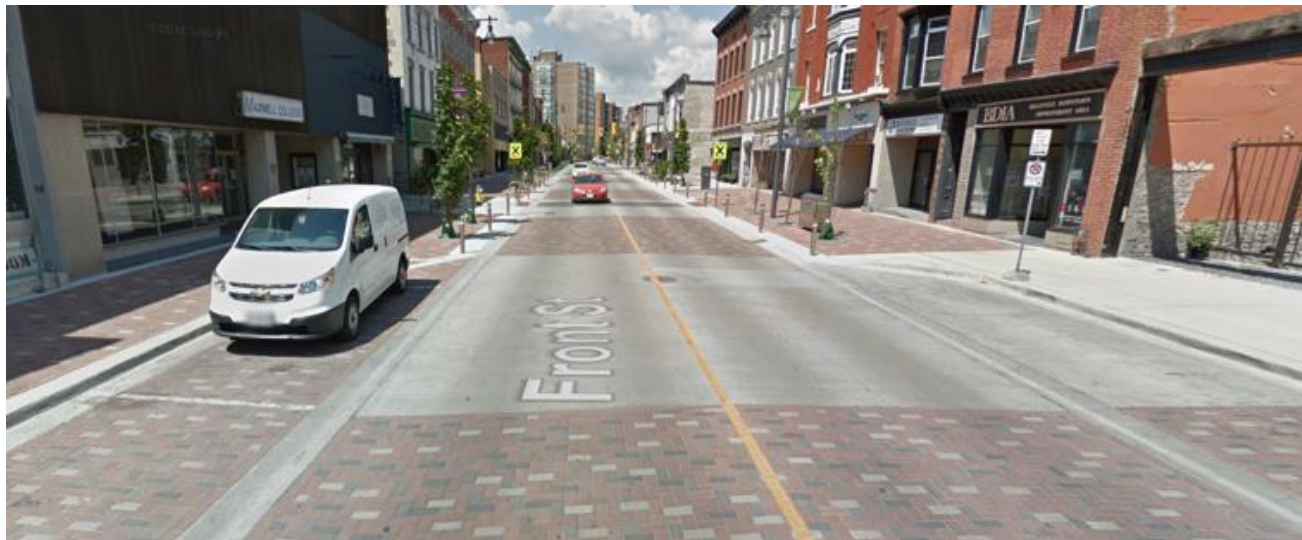
- One block revitalization streetscape adjacent to St Lawrence Market
- All pavers throughout pedestrian realm and roadway
- The street and sidewalks feature concrete unit paving laid on a concrete base. Barrier curbs are replaced by rows of bollards to provide a continuous surface along the full length of the street. Pavers are selected and organized to reflect the heritage context, and also to clearly indicate pedestrian and vehicle zones in full compliance with the most stringent AODA guidelines.
- Maintenance agreement/assistance from BIA
- Toronto had no info on O/M costs for Market Street

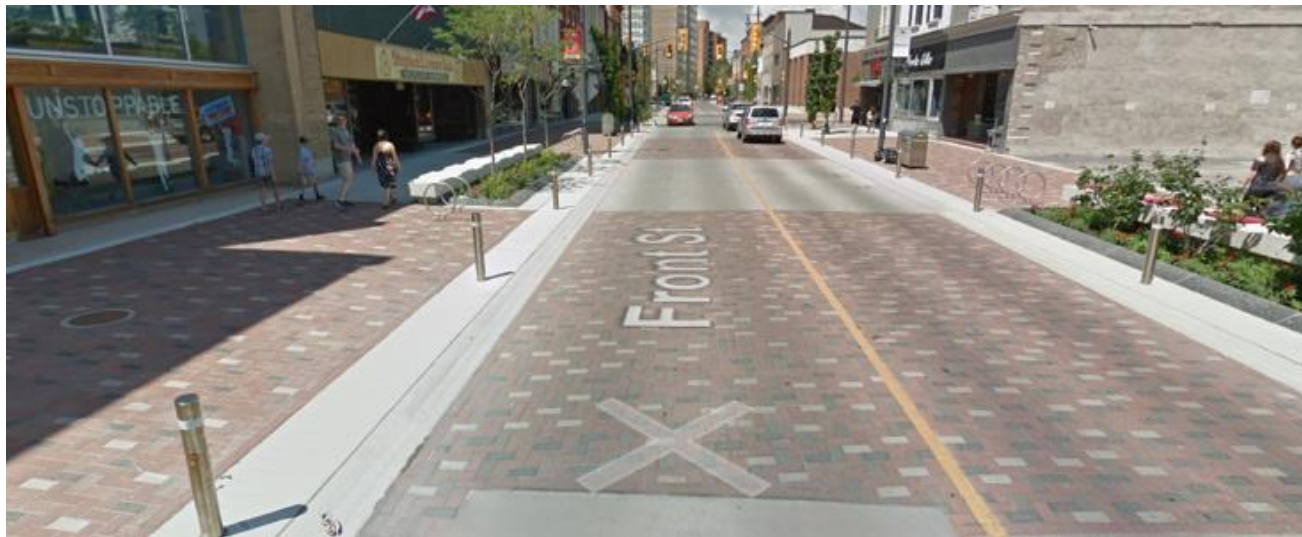
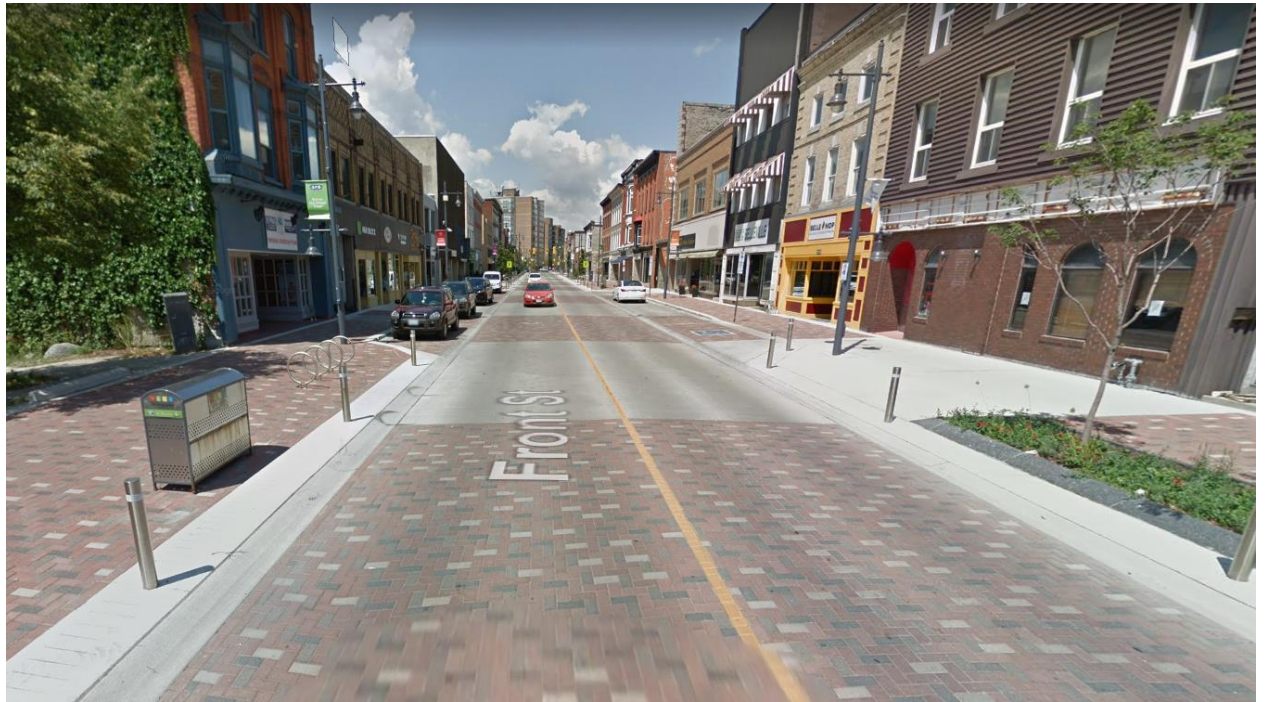


Summer season – no parking on west side to allow patios and pedestrian walkway

Belleville, ON

- Total cost \$35million (1 km in length)
- the streetscape is a combination of concrete, asphalt and concrete pavers over a concrete base – the type/colour of the pavers was created for them and called the Belleville Blend (unilock) Pavers were used in both the pedestrian and vehicular zones
- used a creative landscape architect to design the streetscape
- soil cells were introduced to ensure trees survive
- some rolled curbs to be pedestrian friendly and some locations were flat surfaces were created from storefront to storefront. Decorative bollards protect pedestrians, Design allows entire areas to be closed off.
- two lanes of parking eliminated most of the street to enlarge pedestrian zone (add lay-by parking added) Also narrowed travel lanes.
- new streetlights from top to bottom- custom designed, LED technology, switch pole (bottom and top) with fuse box.
- WiFi could not be incorporated at the time and was not included
- all infrastructure underground was replaced (1920 sewers)
- Construction occurred over 4 years (four phases)
- the project has been working well for 4 years – no issues – important to have a concrete base underneath and drainage holes in the base
- there was no lifecycle analysis done for the project - staff acknowledge that there will likely be additional costs and maintenance will have to be adjusted.





Uden, North Brabant

Shopping Street in The Netherlands

- The road right of way **resembles a pedestrian mall** that allows vehicles at a lower speed
- Different pavers delineating pedestrian and vehicular areas.



Lindsay, ON

- Work undertaken in 2020/21
- New downtown streetscape- pavers used for sidewalk and boulevard area with material change to delineate pedestrian walking zone
- Concrete used near building frontages



