



CSOPS.21.045
Attachment #2



Public Information Meeting #1

Victoria Street and Louisa Street Area Reconstruction

March 2021



Introduction

Engagement

Tatham Engineering has been engaged to complete preliminary design of the Victoria Street and Louisa Street Area Reconstruction. The detailed design will be completed in conjunction with Elma Street and Alice Street, under the new project title Thornbury West Reconstruction Project - Phase 1

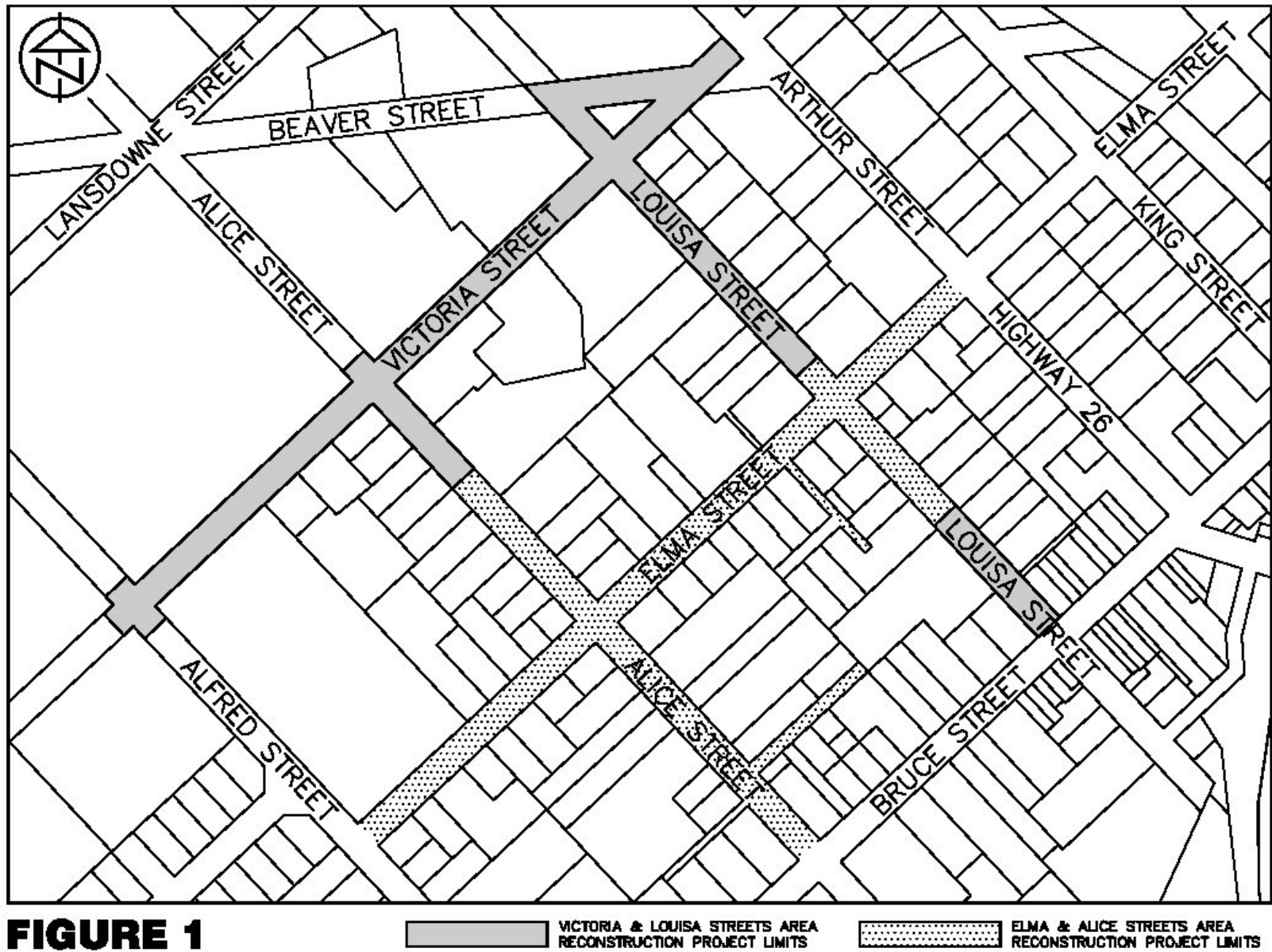
Thornbury West Reconstruction Program (TWRP)

TWRP is focused on improving servicing issues in the older section of Thornbury.

Victoria Street and Louisa Street are the second project initiated in TWRP. Over the last 2 years the Town has completed studies, workshops and presentations for the Elma Street and Alice Street reconstruction project. Based upon this information a road design was selected. Victoria Street and Louisa Street are proposed to generally match Elma Street and Alice Street with minor variations where needed.



Project Limits



Introduction

Thornbury West Reconstruction Project (cont'd)

Completed to date

Previous workshops focused on technical engineering and livability aspects of street design were completed with the Elma and Alice Street Project

- Sustainability (stormwater management);
- Active Transportation (including walking and cycling);
- Community design and social value (aesthetics, landscape design, lighting, accessibility, traffic calming and age-friendly design);
- Services (transportation, utilities); and
- Economics (value to the community and cost of infrastructure)

To be Completed

The project has completed the 30% design stage. The next steps are to

- receive feedback from the public (via this Public Information Meeting)
- to proceed to detailed design.

A Stage 2 Archaeological Assessment has been included in the scope of work. The assessment will be completed by Archeoworks Inc. and involves digging small test pits throughout the project limits to ensure nothing of archaeological significance is found.





Existing Conditions

Infrastructure and Functionality

Existing Conditions – Infrastructure

Existing infrastructure within the project limits requires replacement due to poor conditions and deficiencies.

This is the primary purpose for this project – replacement of infrastructure.

Critical factors:

- End of life sewers and watermain
- Overland drainage deficiencies
- Insufficient bury depth causing frost damage
- Insufficient road subgrade to support traffic loads
- Inconsistent cross section
- Required upgrades to support growth



Existing Conditions – Functionality

Functionality Issues:

- Sidewalks are discontinuous - on one side, varying in width, alignment and side
- Road width and cross section are inconsistent – curbs, asphalt boulevard, ditches, etc.
- Lighting is inconsistent
- Boulevard and overland drainage are existing concerns



Existing Conditions – Cross Section



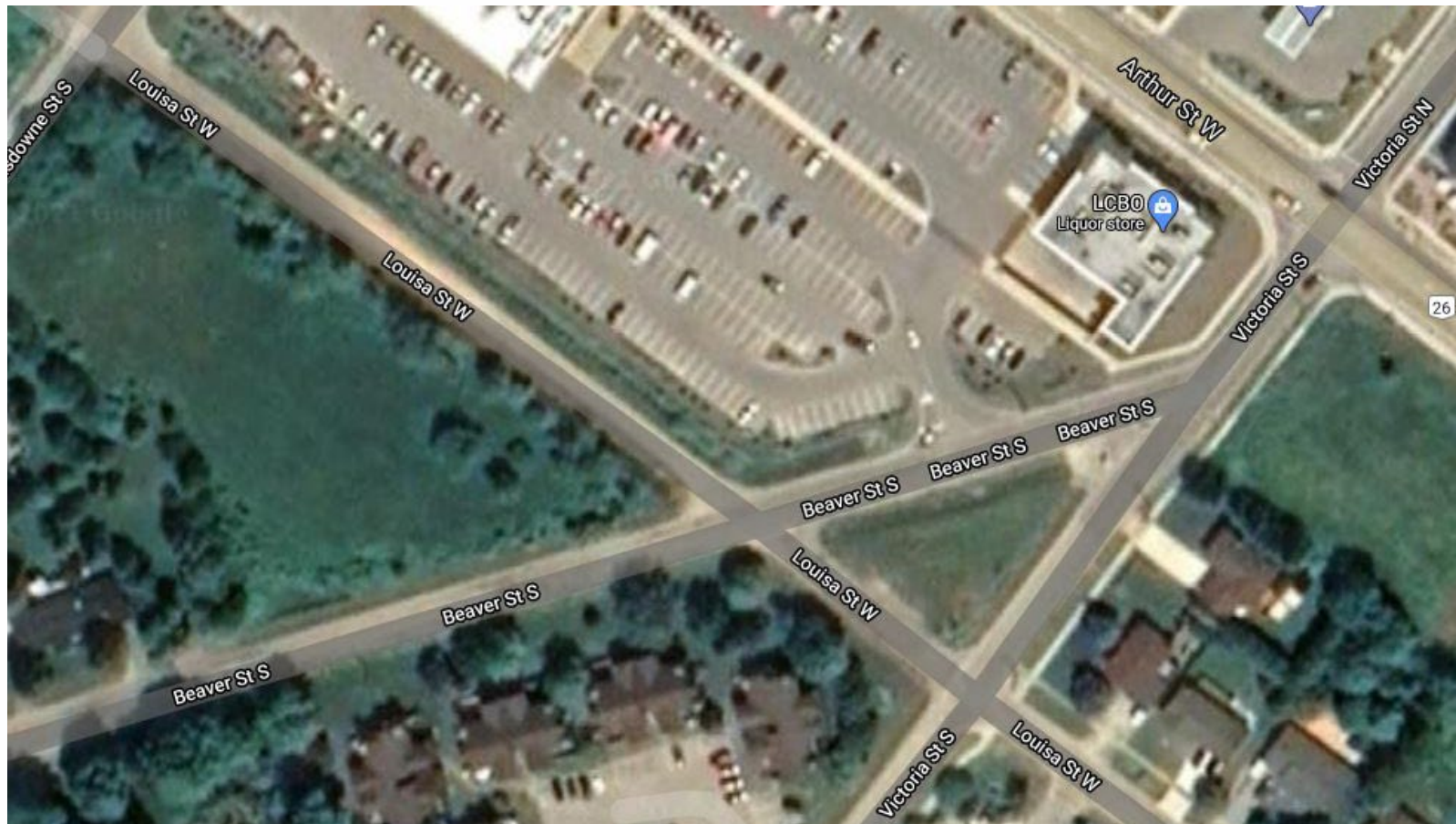
Existing Conditions – Cross Section



Existing Conditions – Beaver Street

Beaver Street extends from Alfred Street West to Victoria Street South, it bisects the otherwise grid-based road network at a 45° angle. This creates substandard intersections with both Victoria Street and Louisa Street.

In consideration of the planned reconstruction of Victoria Street and Louisa Street, the Town has taken the opportunity to review the existing alignment of the intersections of Beaver Street with Victoria Street and Louisa Street.



Existing Conditions – Arborist Report

The Town is completing a full assessment of all trees located within the project limits for health and stability.

Private landscaping elements (including trees, shrubs, fences, lights, etc.) will be removed from the right-of-way, other than the retention of specimen trees that would be considered street trees.

Additionally, trees on private property may be compromised if they conflict with the replacement of services in existing or corrected locations.





Project Consultation

Council Discussions

Conclusions from Council Discussions

In Council meetings on August 11 and 24, 2020, The Town of Blue Mountains Council discussed what approach to take for the Victoria Street and Louisa Street Reconstruction. Specifically, the number of sidewalks to provide along Victoria Street between Alfred Street and Arthur Street and the cross section for Louisa Street between Elma Street and Bruce Street.

Sidewalk

Purpose: Provide enhanced level of service for active transportation between commercial areas on Arthur Street and recreational and community spaces on Alfred Street.

Approach: After considering the approach taken on Elma Street, Council decided to construct a concrete sidewalk on both sides of Victoria Street.

Street Cross Section

Purpose: Due to the terrain a unique cross section will be selected for Louisa Street between Elma Street and Bruce Street. There is a large slope along the south side of the right of way, a standard cross section can not be implemented without a significant retaining wall.

Approach: This portion of Louisa Street is proposed to be a 6.0 m road to accommodate one-way traffic, moving away from the downtown area. An additional 3.5 m paved shoulder will facilitate on-street parallel parking. This cross section minimizes the required retaining wall while maintaining functionality.



Victoria & Louisa Street Area Traffic Study

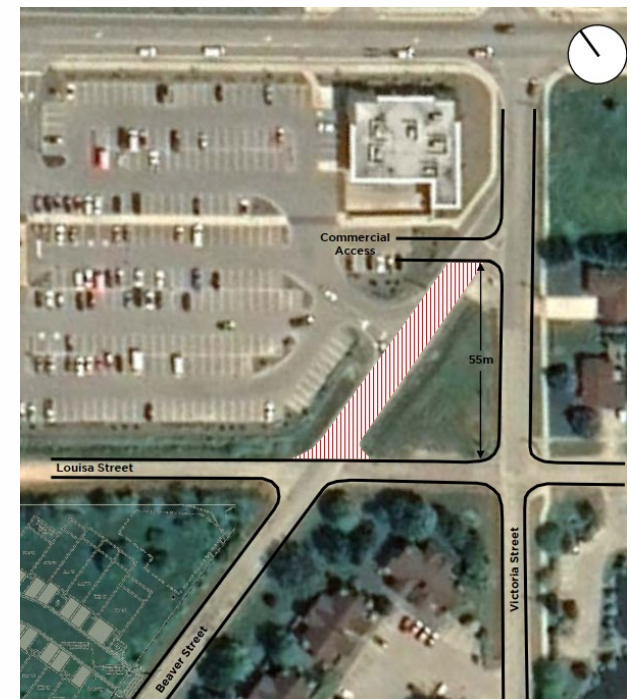
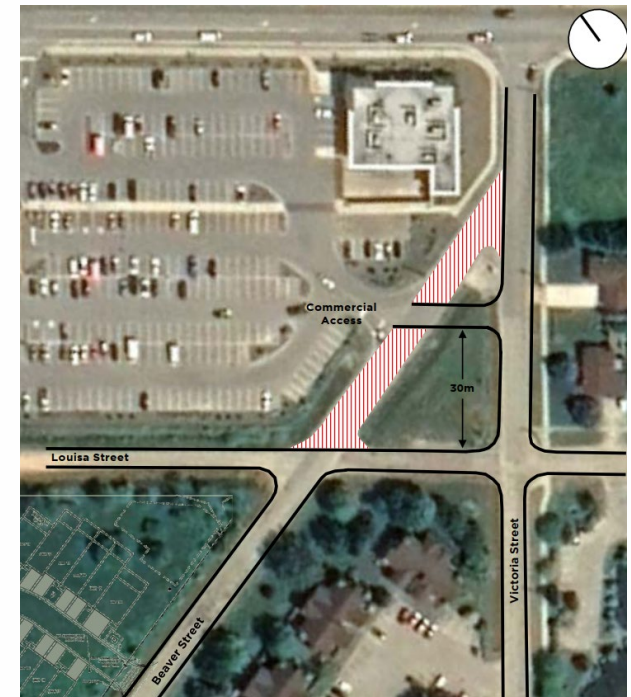
Tatham Engineering was tasked with identifying and reviewing potential improvement opportunities for the Beaver/Victoria/Louisa intersections, assessing the impacts associated with the various scenarios considered and recommending a preferred solution. These intersections require adjustments due to the sharp 45-degree angle of intersection. Intersections at a sharp angle are not recommended due to poor sight lines, difficulty for large vehicles to navigate, potential for high-speed entry and longer crossing distance.

Following a detailed review of all available alternatives, the preferred solution includes the closure of Beaver Street between Victoria Street and Louisa Street, eliminating both 45-degree intersections.

Implementing the preferred solution provides the opportunity to improve:

- intersection safety;
- stormwater drainage;
- plaza entrance configuration; and
- active transportation through reduction in crossing distance and realignment of sidewalk.

This report has been reviewed by Town Staff and the Town's Transportation Committee. Alternatives to address the issues with intersection operations have been reviewed and Town Staff and Council are evaluating potential solutions. No specific decisions regarding the closure of Beaver Street have been made.



Project Consultation

Balancing Priorities

Many components of a reconstruction project end up competing. The purpose of this PIC is to present the balance we have chosen (preferred cross sections) and discuss the reasoning behind all decisions. A few simplified key decisions are presented below for example:

Storm Sewer Sizing and Overland Flow Routes

To meet Provincial requirements, storm sewers must be sized for the '5 Year Storm'. Sewers can be sized larger to provide a higher 'Level of Service', however, constraints like gas main crossings, sanitary service conflicts, pipe cover and cost make this much more difficult. Regrading the street improves drainage and provide proper overland flow routes saves cost on extra large sewers.

Sidewalk, Grading and Trees

Providing sidewalk on one side of Louisa Street and Alice Street allows more trees to remain by reducing the need for retaining walls and large grading changes. Additionally, a sidewalk on one side consistently provides a continuous route for pedestrians.

Providing sidewalk on both sides of Victoria Street gives easy pedestrian access to Moreau Park and the Beaver Valley Community Centre.

Street Width and Lane Allocation

A street width of 8.5 m has been selected where possible to provide sufficient space for all requirements – street parking, emergency vehicle passage, cyclists, etc. A larger street to accommodate bicycle lanes would require removal of many additional trees. A narrower road would limit street flexibility – emergency vehicles require 6.0 m unobstructed width, meaning no street parking would be allowed.

Due to the large slope along Louisa Street a 6.0 m road width is preferable, with a 3.5 m paved shoulder has been included to ensure parking availability.

Conclusion

We have made decisions based on experience, workshop input, project costs and intent to limit construction impacts. These decisions are not final, and we welcome input. All decisions will be presented to Council for approval prior to proceeding with final design.





Proposed Cross Sections

Alice Street West, Louisa Street West and Victoria Street South

Proposed Cross Sections

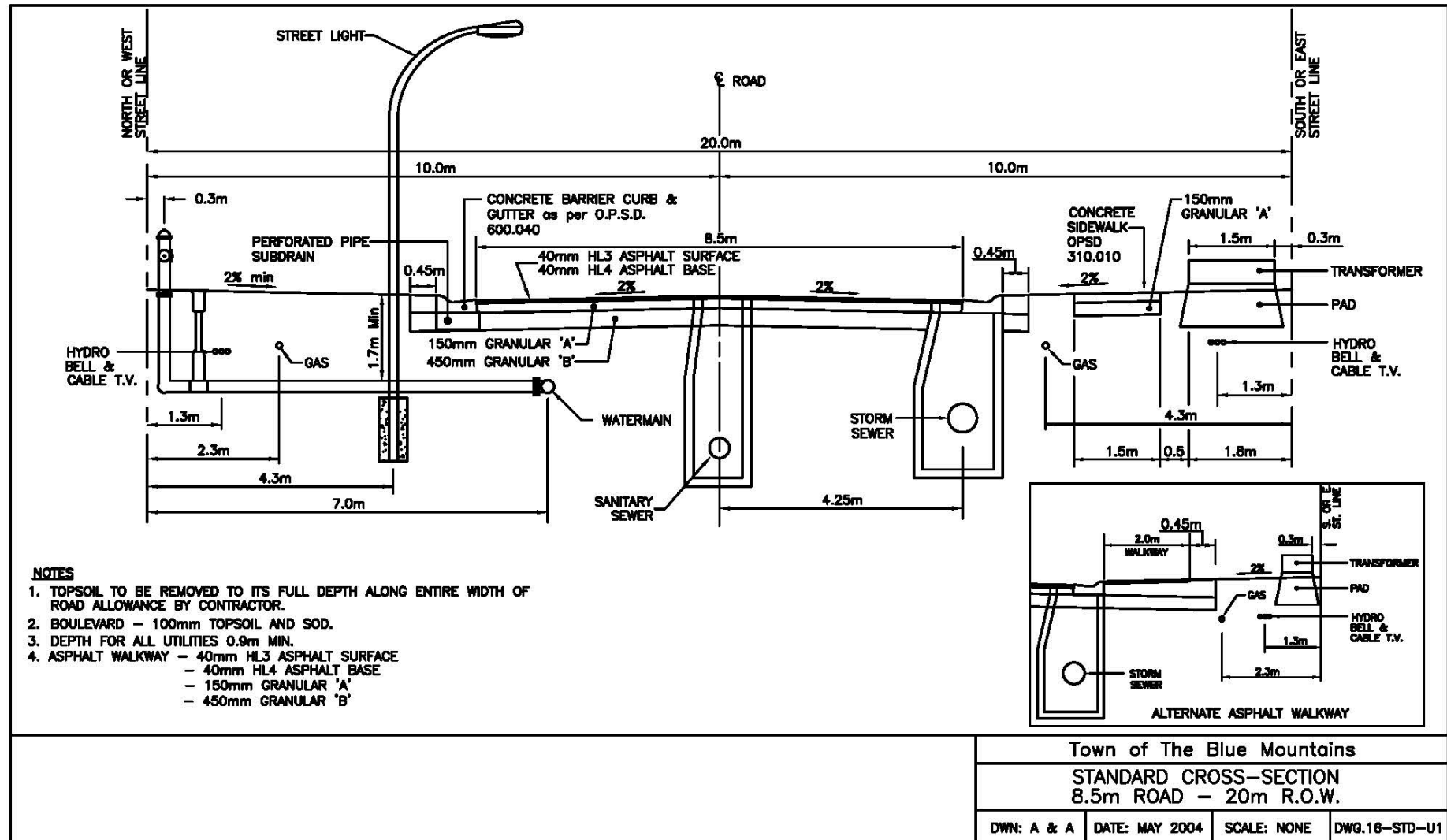
Implementation

All cross-sections have common elements:

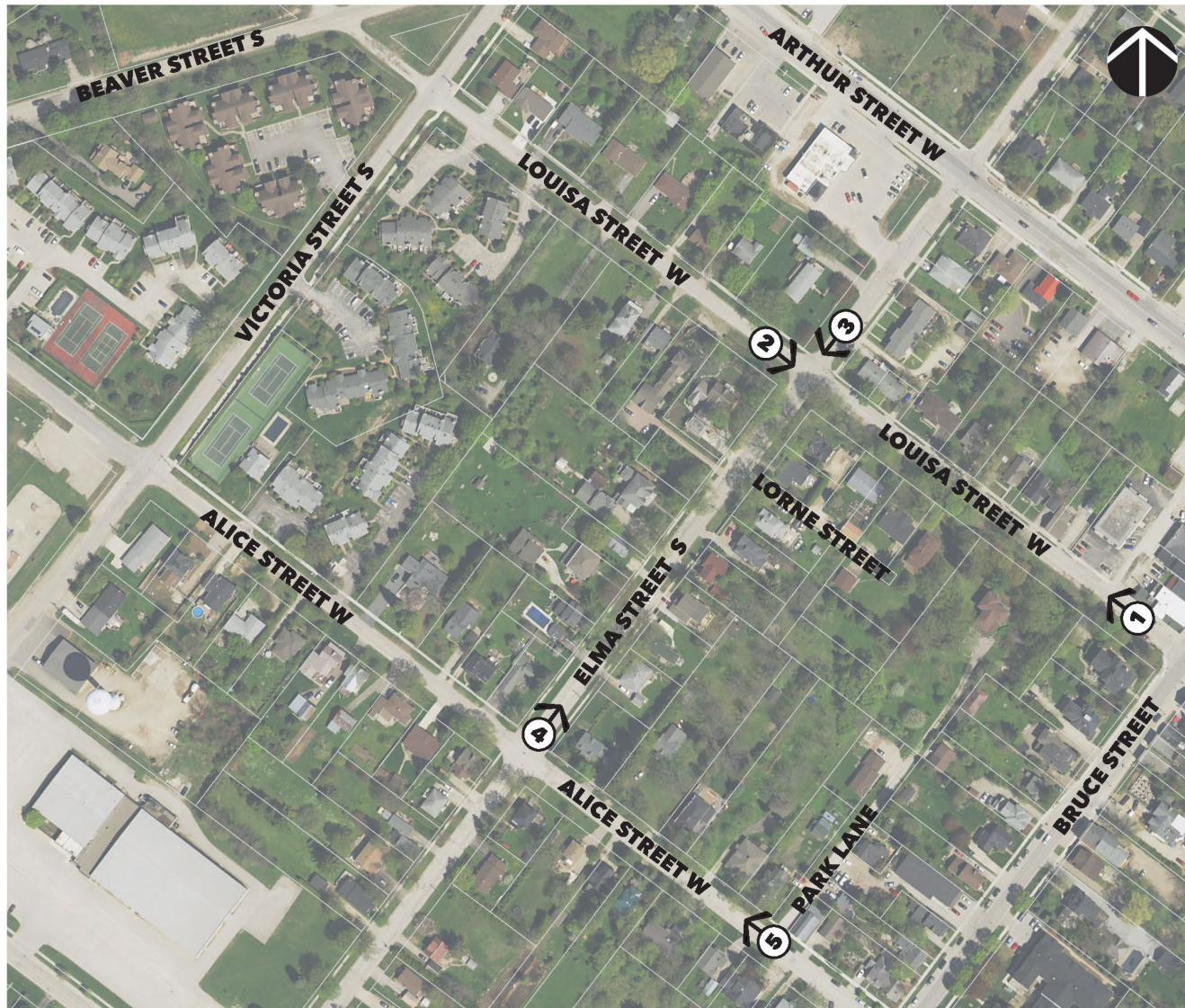
- Property Lines – generally the limits of construction
- Centre of Road – highest point in the road.
- Curb and Gutter –mountable curb and gutter is proposed throughout the project to provide a well-defined edge of road and improve drainage from existing properties.
- Sidewalk – a 1.5 m sidewalk is proposed for one side of the street along Louisa Street and Alice Street, to match the Standard Cross-Section - 8.5 m Road. A 1.5 m sidewalk is proposed along both sides of Victoria Street in anticipation of increased pedestrian traffic from Moreau Park and the Beaver Valley Community Centre.
- Watermain, Storm Sewer and Sanitary Sewer – designed according to Town Engineering Standards.
- Lane Widths – 4.25 m lane widths results in an 8.5 m road width for Alice Street, Victoria Street and Louisa Street (west block). The east block of Louisa Street will be converted into a 6.0 m wide one-way road, with traffic moving away from downtown. A 3.5 m parallel parking lane will also be included.
- Proposed Grading – through lowering the road profile and incorporating mountable curb throughout the project limits, grading will be improved as much as possible, to eliminate areas of ponding and ensure proper drainage.
- Street trees will be planted at approximately 16 metre spacing in the right-of-way. Where trees can not be planted in the right-of-way the Town will seek opportunities to plant them on private property.
- In the past 5+ years, the Town has been using a number of species of trees as recommended by the Town's Arborists including Elm, Red Oak and Autumn Blaze Maple. In the upcoming Town Standards update, these and other trees will be recommended by the Town's Landscape Architects as street trees.



Proposed Cross Sections – TOBM Standard Cross-Section 8.5 m Road

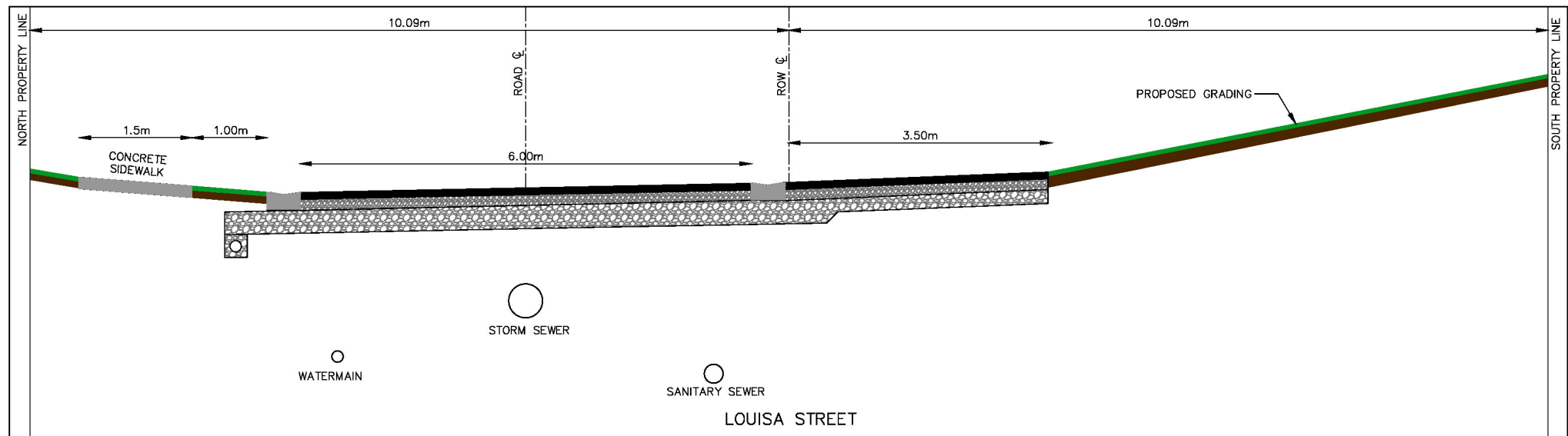


Project Rendering Overview



Proposed Cross Section – Louisa Street – East of Elma Street

- Consistent cross section – 6.0 m wide one-way travel lane, with a 3.5 m parallel parking lane.
- Upgrading sidewalk to 1.5 m throughout in same location as existing sidewalk
- Improvements to drainage through addition of storm sewer throughout project limits



1) Louisa Street – At Bruce Street looking west toward Elma Street



EXISTING



Visualization is based on preliminary engineering and may not represent final conditions.

PROPOSED



2) Louisa Street – At Elma Street looking east toward Bruce Street



EXISTING



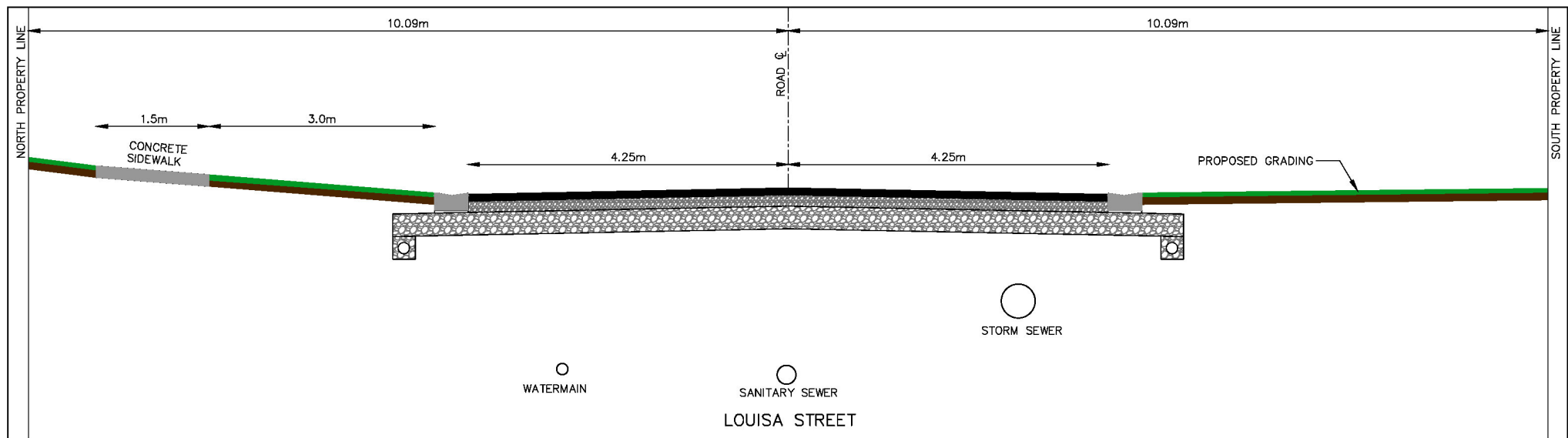
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PROPOSED



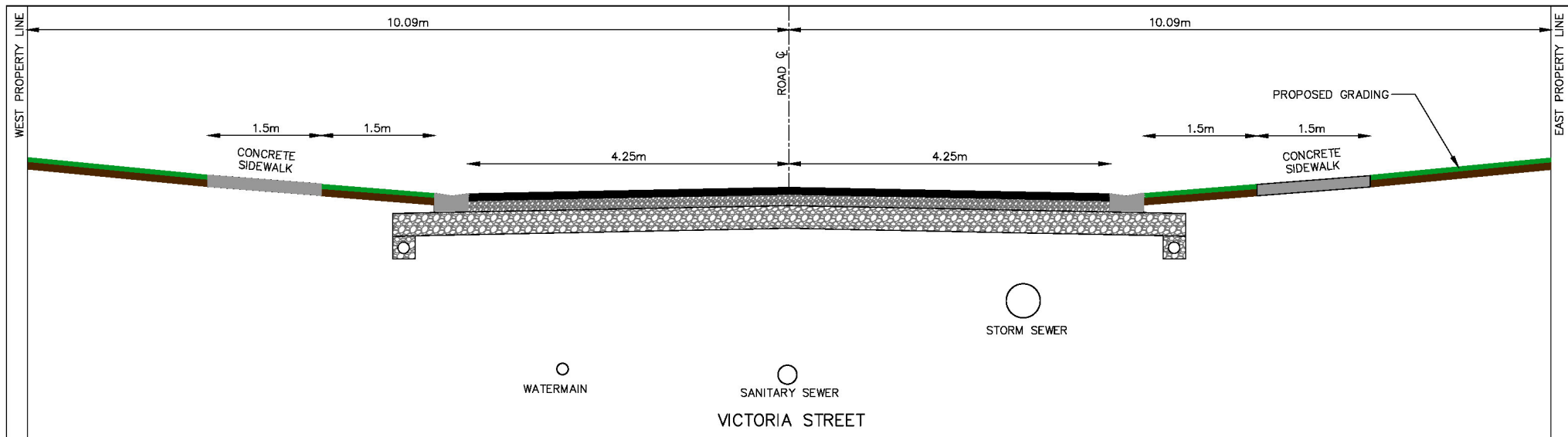
Proposed Cross Section – Louisa Street – West of Elma Street

- Consistent cross section – 8.5 m wide asphalt and addition of mountable curb and gutter throughout
- Upgrading sidewalk to 1.5 m throughout in same location as existing sidewalk
- Improvements to drainage through addition of storm sewer throughout project limits



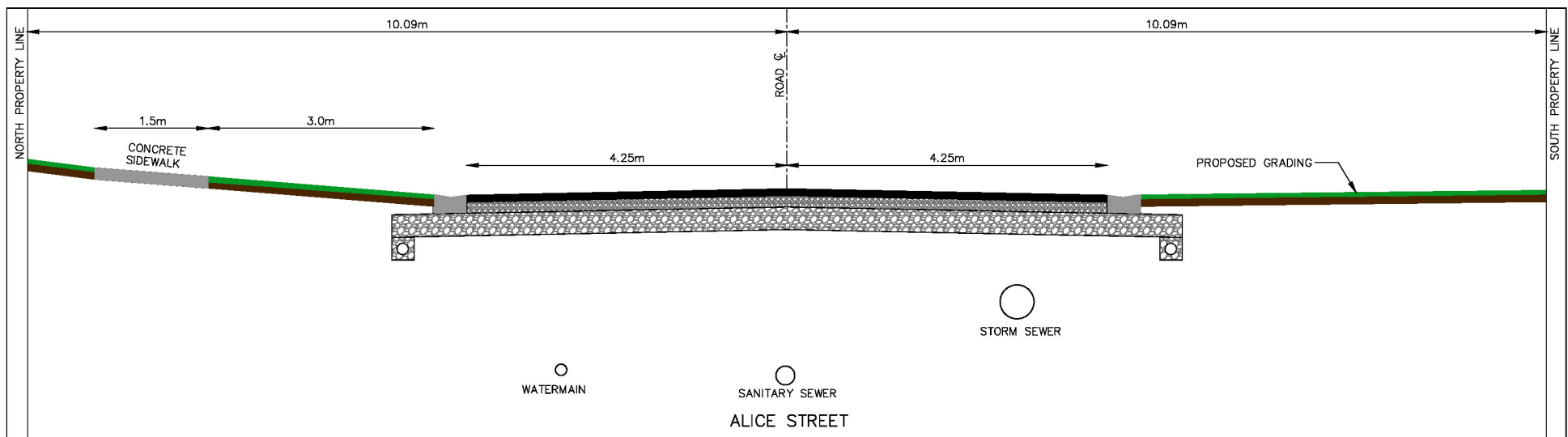
Proposed Cross Section – Victoria Street

- Consistent cross section – 8.5 m wide asphalt and addition of mountable curb and gutter throughout
- Removal of asphalt boulevard and gutters throughout
- A 1.5 m sidewalk along both sides of the street
- Concrete mountable curb and gutter to be provided on both sides of the street throughout



Proposed Cross Section – Alice Street

- Consistent cross section – 8.5 m wide asphalt and addition of mountable curb and gutter throughout
- Upgrading sidewalk to 1.5 m throughout in same location as existing sidewalk
- Improvements to drainage through addition of storm sewer throughout project limits



5) Alice Street – At Park Lane looking west toward Elma Street



EXISTING



PROPOSED

Visualization is based on preliminary engineering and may not represent final conditions.





Extra Renderings

Elma Street West

3) Elma Street – At Louisa Street looking south toward Alice Street

**EXISTING****PROPOSED**

Visualization is based on preliminary engineering and may not represent final conditions.



4) Elma Street – At Alice Street looking north toward Louisa Street



EXISTING



Visualization is based on preliminary engineering and may not represent final conditions.

PROPOSED





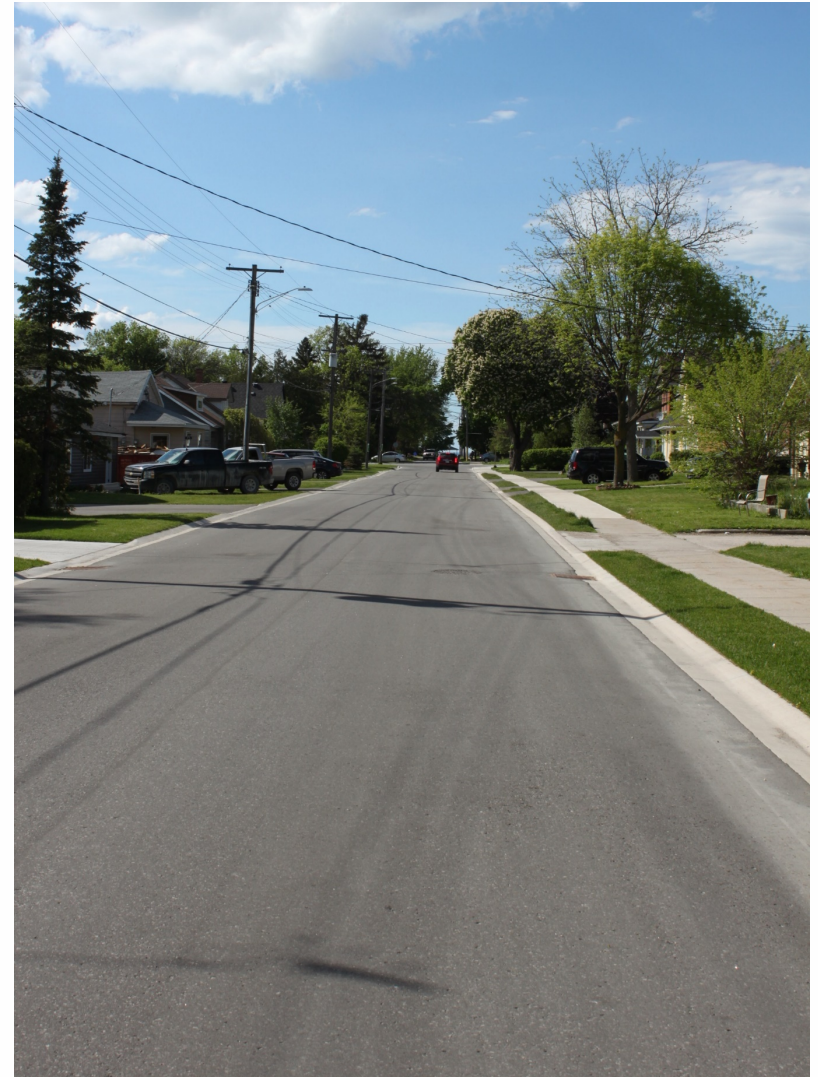
Examples

Similar challenges, clear improvements

Previous Examples – Niagara Street, Collingwood

Key Points:

- Mature Street near Georgian Bay
- Very large trees line both sides of the street
- Storm drainage a significant issue
- Inconsistent cross section



Previous Examples – Norene Street, Midland

Key Points:

- Large trees and significant utility installations throughout
- Storm drainage a significant issue
- Addition of new sidewalk





Next Steps

Design, Acceptance, Construction

Next Steps – Design and Approvals

Advance the Preliminary Design

The design will be advanced to consider grading, servicing and utility conflicts. The 60% design submission for the Victoria and Louisa Street Reconstruction project will be completed separately from the Elma and Alice Street Reconstruction project.

The final design of the projects will be completed together under the new name Thornbury West Reconstruction Project - Phase 1.

Utility Conflict Resolution

Test holes will be completed in critical locations and relocation work will be advanced as required

Detailed Design Presentation

The 95% design will be presented to council and the public once it is complete (scheduled for Summer 2021). This will provide an excellent opportunity to review the full design and understand the impacts to each property. Additional information regarding construction impacts, mail delivery, driveway access, garbage and recycling collection (etc.) will be provided at that time.

Final Design and Tendering

The design will be completed and a tender document prepared. The design is scheduled to be completed in Fall 2021.

Construction

Once the tender period is complete, a contractor will be selected and construction will proceed (scheduled for Spring/Summer 2022)





Questions or Comments?

Enhancing our communities