



Report to: Development Services Committee

Meeting Date: April 30, 2018

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**SUBJECT:** Victoria Square Boulevard, Schedule C Municipal Class  
Environmental Assessment Study (Ward 2)

**PREPARED BY:** Alberto S. Lim, Senior Capital Works Engineer, Ext. 2860

**REVIEWED BY:** Alain Cachola, Senior Manager, Infrastructure and Capital  
Works, Ext. 2711

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**RECOMMENDATION:**

- 1) That the report entitled “ Victoria Square Boulevard, Schedule C Municipal Class Environmental Assessment Study (Ward 2) ”, be received; and,
- 2) That the preferred cross sections for the various character areas on Victoria Square Boulevard as set out in the Environmental Assessment Study be endorsed; and,
- 3) That the preliminary design layout as set out in the Environmental Assessment Study be endorsed; and,
- 4) That staff be authorized to issue a Notice of Study Completion for the project which will make the Environmental Assessment Study available for public review for a period of 30 days commencing May 2, 2018; and further,
- 5) That staff be authorized and directed to do all things necessary to give effect to this resolution.

**PURPOSE:**

The purpose of this report is to seek Council’s endorsement of the Environmental Study Report for the full length of Victoria Square Boulevard from Woodbine Avenue (south) to Woodbine Avenue (north) and to file the Class Environmental Assessment (EA Study) with the Ministry of Environment and Climate Control (MOECC).

**BACKGROUND:**

Victoria Square Boulevard is an existing north-south roadway, approximately 3 km in length between Woodbine Avenue (south) and Woodbine Avenue (north). It is comprised of 2 lanes with varying cross sections. This road was formerly Woodbine Avenue, which was part of the York Region road network. Jurisdiction of the road was transferred from York Region to the City of Markham in January 2016 after the Region assumed jurisdiction of the (new) Woodbine Avenue.

Victoria Square Boulevard is subdivided into six (6) distinct character areas. The layout of Victoria Square Boulevard and the extent of each character areas are illustrated in Appendix A of this report.

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### Environmental Assessment Study

The City retained HDR in December 2015 to carry out a Schedule C Municipal Class Environmental Assessment to address the required improvements for the entirety of Victoria Square Boulevard. The purpose of the EA Study includes but not limited to the following:

- Review existing conditions and future transportation needs along the Victoria Square Boulevard corridor and identify opportunities for improvements;
- Identify, evaluate and select alternative solutions and preferred design concepts to address the transportation, environmental, and social economic needs;
- Collect, document, and assess input and feedback from residents and stakeholders;
- Document the decision making rationale and study process in an Environmental Study Report.

The EA study is carried out to improve the existing transportation network along Victoria Square Boulevard to accommodate the needs of existing residents and future developments through various modes of transportation. The EA addresses short term and long term transportation needs for pedestrians, cyclists, transit users and motorists with consideration of the following existing corridor features:

<b>Problems or Challenges</b>	<b>Opportunities</b>
Limited and discontinuous cycling and pedestrian facilities	Consider additional, continuous cycling and pedestrian facilities to provide a connected active transportation network
Limited available on-street parking	Consider on-street parking where space permits to meet the needs of the adjacent residences
Discontinuous installation of curb and gutter, watermains, and sewers	Consider a continuous urban roadway section with curb and gutter in lieu of rural ditches
The study area is comprised of six distinct areas with unique characteristics	Preserve and enhance community character, through consideration of streetscaping and gateway features

The Environmental Study Report has been prepared and is proposed to be filed with the MOECC in May 2018. The report discusses the preferred cross sections in each of the character areas and preliminary design layout for the full length of Victoria Square Boulevard. The report also documents the process of arriving at the preferred design alternatives and the rationale for the key elements of the design.

### Public Consultation

The Environmental Assessment for Victoria Square Boulevard Improvements has followed the public and stakeholder consultation process requirements as set out by Municipal Engineers Association for Municipal Class Environmental Assessment. This consultation process involved the publishing of a Notice of Project Commencement, public information meetings, correspondence with the potential reviewing agencies and

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meetings with significant stakeholders such as the TRCA and multiple developers. Aboriginal Group representatives were contacted via study notices throughout the study.

Notices for the public meetings were advertised in the local newspaper and delivered to all property owners in the study area. In addition, there were mobile signs located at both ends of the study area and a project web site was created to provide detailed information.

The first Public Information Centre (PIC) was held at the Victoria Square Community Centre on June 13<sup>th</sup>, 2016 and the second on June 14<sup>th</sup>, 2017. The purpose of the first PIC was to introduce the study, provide overview, and identify problems in the area, present possible alternative solutions and to solicit public input. The purpose of PIC No. 2 was to share the evaluation of alternative design concepts and the preferred designs with the public and stakeholders, and request their feedback on the preferred designs. The meetings were conducted as informal drop-in centres.

Information and comment sheets were made available to all attendees of the PICs. A total of 116 people attended PIC No. 1 and 111 people were at PIC No. 2. Local residents, the area Councillor, City of Markham staff and developer representatives were present at these PICs. Comments provided by the public were generally positive with regards to the recommended preferred cross sections and preliminary layout design.

## **OPTIONS/ DISCUSSION:**

### Road Geometry

The horizontal alignment for the preferred design generally follows the existing centreline of Victoria Square Boulevard with some minor centreline adjustments north of Elgin Mills Road in order to avoid property impacts and to better match into the existing elevations at the property line at some locations.

The vertical alignment for the preferred design follows the existing vertical profile with some minor adjustments in order to minimize impacts to existing entrances and driveways and reduce grading impacts to adjacent properties and features.

The proposed horizontal and vertical alignments for the recommended preferred design are illustrated on the preliminary design drawings shown in Attachment 'B'.

### Recommended Design Concept

Design alternatives were developed for each of the six character areas. Multiple iterations of design alternatives were developed through consultation with the public and stakeholders until eventually arriving at a preferred design alternative for each of the character areas.

The preferred alternative design contains the following key elements:

- A continuous urban cross-section, replacing roadside drainage ditches with curb and gutter subsurface drainage system, for each character area.
- Maintain existing number of through lanes (one in each direction) with no proposed widening for additional through lanes.

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- A continuous two-way centre left turn lane through Areas 2, 4, and 5 to facilitate more efficient turning movements. A two-way centre left turn lane within Area 3 is not feasible due to the constrained right-of-way through the village.
  - Continuous multi-use paths on both sides of Victoria Square Boulevard through the entire corridor to accommodate pedestrians and cyclists in a dedicated, shared active transportation facility.
  - On-street parking on one side of the street for portions of Areas 2, 4, 5, and 6, to facilitate access to the adjacent townhomes and municipal parks.
  - Gateway features at the north and south connections with Woodbine Avenue.
  - Boulevard landscaping where sufficient space is available.

Preferred road cross sections through the segment areas 1 through 6 are illustrated on Attachments 'C1' through 'C6'.

#### **OPERATIONS AND MAINTENANCE:**

The Operations Department has confirmed that the proposed 3.0m wide on-boulevard multi-use pathway will result in higher life cycle, operating and maintenance costs compared with a typical 1.5m wide sidewalk. Therefore, service levels and future budgets will have to be increased to accommodate this new infrastructure asset. Additionally, enhanced design treatments will be developed through detailed design in order to protect the heritage character of this area.

Staff will report back to Council at the detailed design stage regarding the level of service and cost to operate and maintain multi-use pathways in boulevards throughout Victoria Square Boulevard, as well as costs associated with entrance features and enhanced road treatments.

#### **CONSTRUCTION SCHEDULE:**

Following posting of the EA Study Notice of Completion and expiration of the EA review period, a consultant will be retained by the City to undertake detailed design. The anticipated schedule for completion of detailed design is 2019, with utility relocation and contractor award in the spring of 2020. Anticipated commencement of construction is summer of 2020.

#### **FINANCIAL CONSIDERATIONS:**

Budget for detailed design has been approved under the 2018 budget request. Budget for construction will be requested upon completion of detailed design.

#### **HUMAN RESOURCES CONSIDERATIONS:**

Not Applicable

#### **ALIGNMENT WITH STRATEGIC PRIORITIES:**

##### Municipal Services:

The improvements on Victoria Square Boulevard will change the roadway from a rural cross-section to an urban cross-section which will include curb and gutter and storm sewers. The existing drainage patterns and locations, however, will not be altered.



There will be no additions of sanitary or watermain services with the Victoria Square Boulevard improvements other than a request from a local group for local improvements. Staff will present a separate report detailing the local improvement request.

The locations of existing utilities and resulting impact and relocation requirements are to be confirmed at the detailed design stage.

Environment:

The impacts of the proposed Victoria Square Boulevard improvements to the natural environment are minor in nature and can be mitigated. Assessments were made to the aquatic habitat and fisheries, vegetation, wildlife and contamination and mitigation measures for these are detailed in the Environmental Study Report.

Culture:

There are 2 protected heritage properties and 24 properties of cultural heritage value identified in the study area, of which 17 are at risk of impact during construction and operation. The properties shall be clearly marked, provided with minimum 10m buffers, and fenced prior to construction. Vibration monitoring is also recommended to ensure the heritage attributes of these properties are not adversely affected during construction and subsequent operation.

Growth Management:

The proposed improvements on Victoria Square Boulevard can be accommodated within the existing right-of-way and do not require property acquisition. The existing two lanes of traffic will be maintained with no additional through lanes.

Transportation and Traffic:

One of the goals of the Victoria Square Boulevard improvements is the promotion of an active transportation network for pedestrians and cyclists and this is achieved with the proposal for a multi-use path on both sides of the road along the entire corridor.

The study area is currently serviced by regular and seasonal bus routes operated by both the TTC and the YRT.

There is no immediate requirement for additional signalized intersections within the Victoria Square Boulevard corridor.

Parks and Recreation:

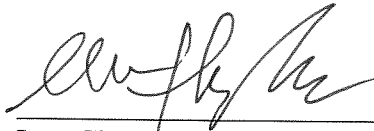
Not Applicable

**BUSINESS UNITS CONSULTED AND AFFECTED:**

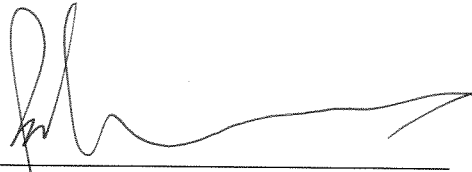
Operations, Planning (Heritage and Urban Design) departments have reviewed this report and their comments have been incorporated.

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**RECOMMENDED BY:**



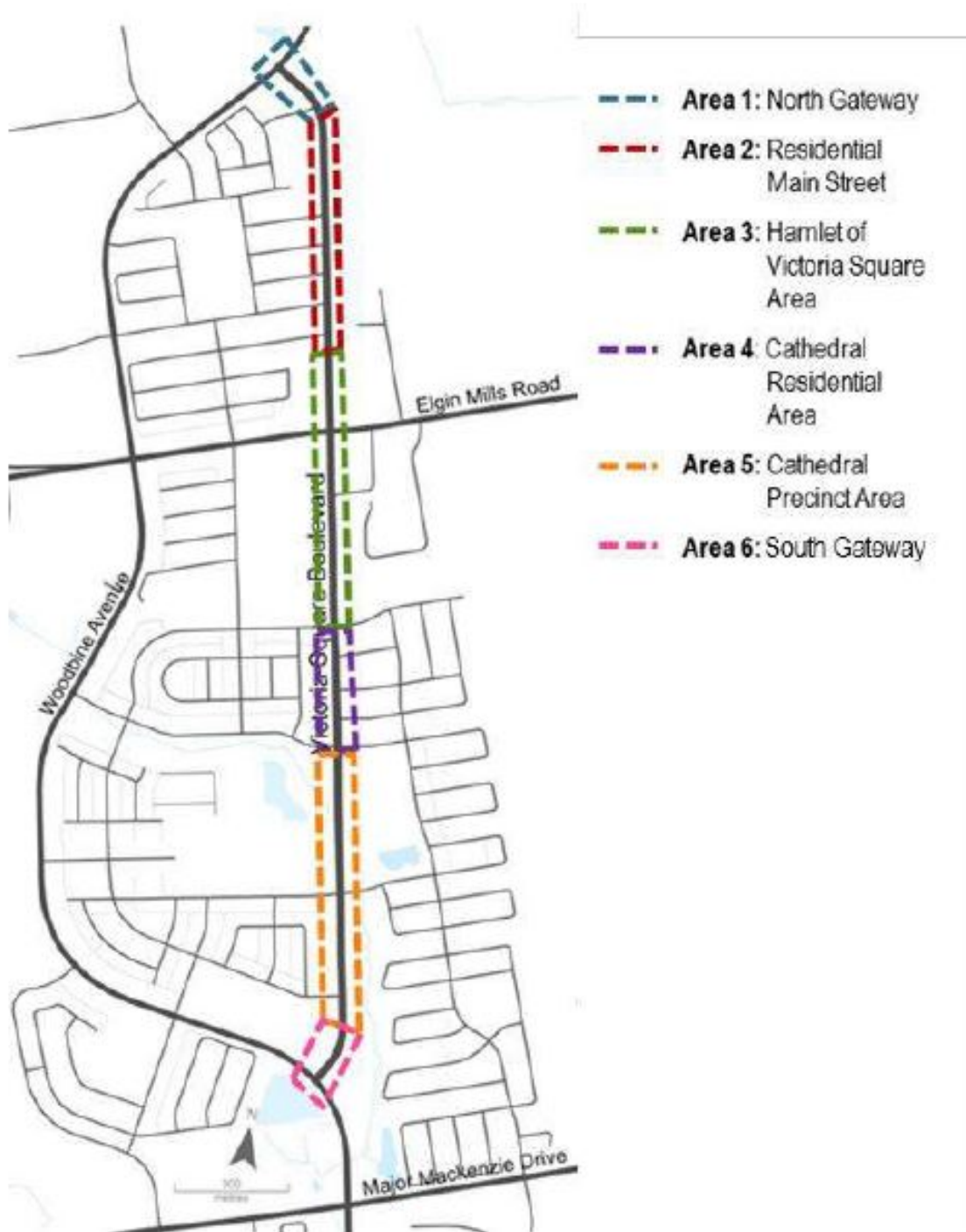
Loy Cheah, P.Eng.  
Acting Director of Engineering



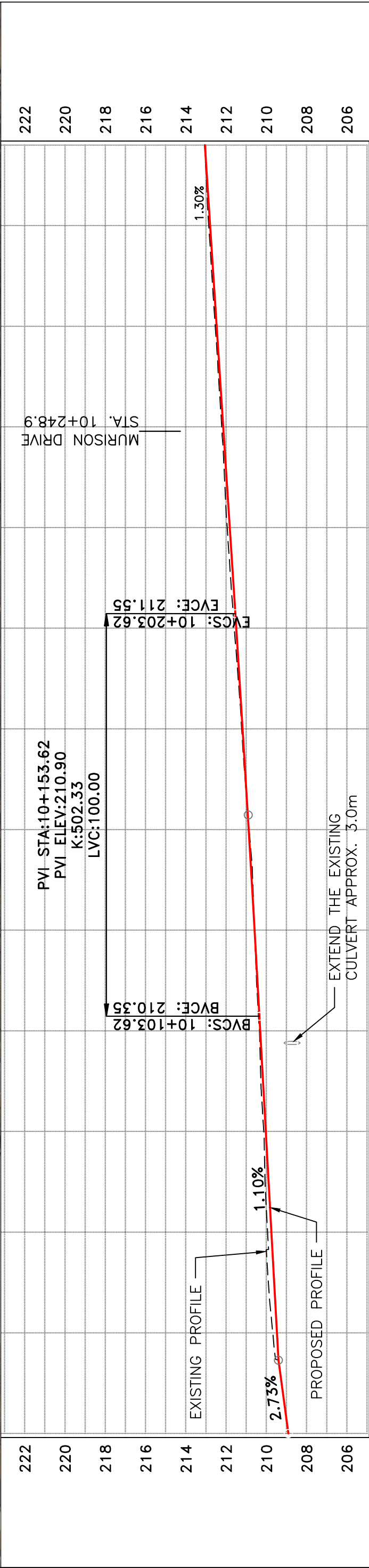
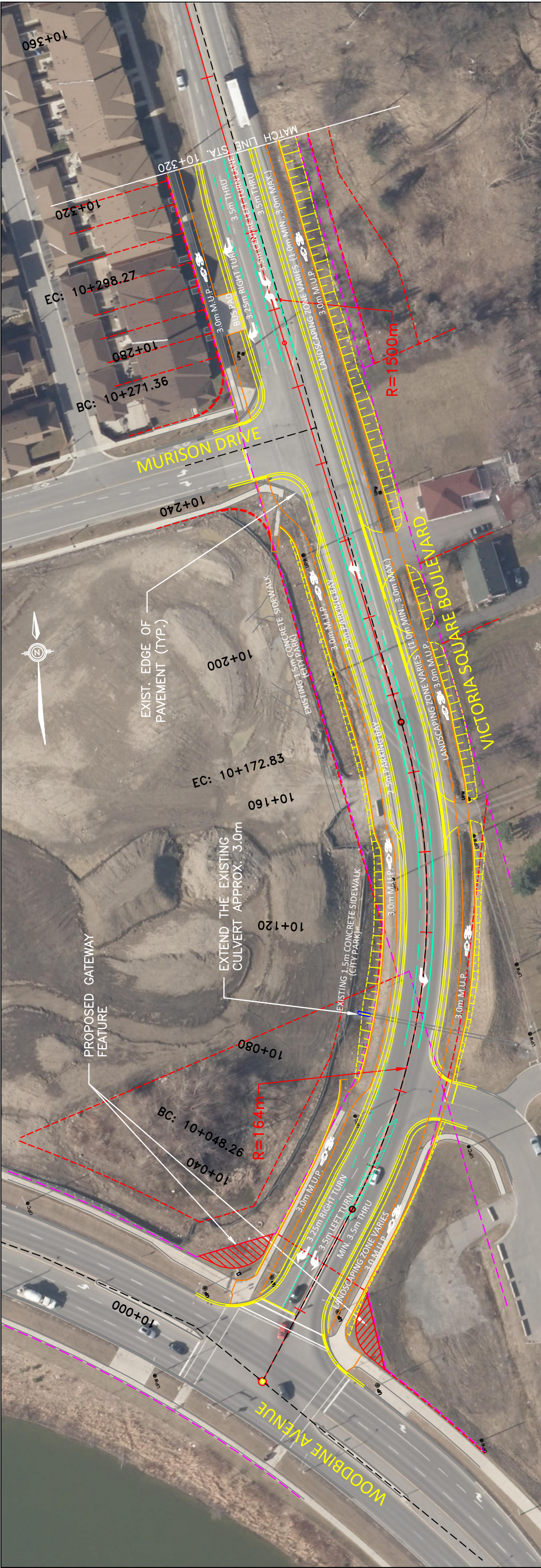
Brian Lee, P.Eng.  
Acting Commissioner of Development  
Services

**ATTACHMENTS:**

- Attachment A - Victoria Square Boulevard – Location Plan with Segment Areas
- Attachment B - Plan and Profiles – Preliminary Design
- Attachment C - Preferred Cross-Section Profiles of Each Characteristic Area

**Attachment A: Victoria Square Boulevard Location Plan with Segment Areas**





LEGEND (PLAN)

PROPOSED MULTI-USE PATH

EXISTING R.O.W

LOT LINES

EXISTING CL ALIGNMENT

PROPOSED CL ALIGNMENT

PROPOSED CURB

PROPOSED PAVEMENT MARKING

GRADING

EXISTING UTILITY POLES

EXISTING CULVERT

PROPOSED CULVERT

EXISTING CHAIN LINK FENCE

LEGEND (PROFILE)

EXISTING PROFILE

PROPOSED PROFILE

EXISTING CULVERT

PROPOSED CULVERT

SCALES

5m

0

10m

Horizontal 1:1000

1m

0

2m

Vertical 1:200

1m

0

2m

VICTORIA SQUARE BOULEVARD

CLASS ENVIRONMENTAL ASSESSMENT

PLAN AND PROFILE

STA. 10+000 TO STA. 10+320

MARKHAM

SHEET.NO

01

DATE.

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10+000

10+050

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10+150

10+200

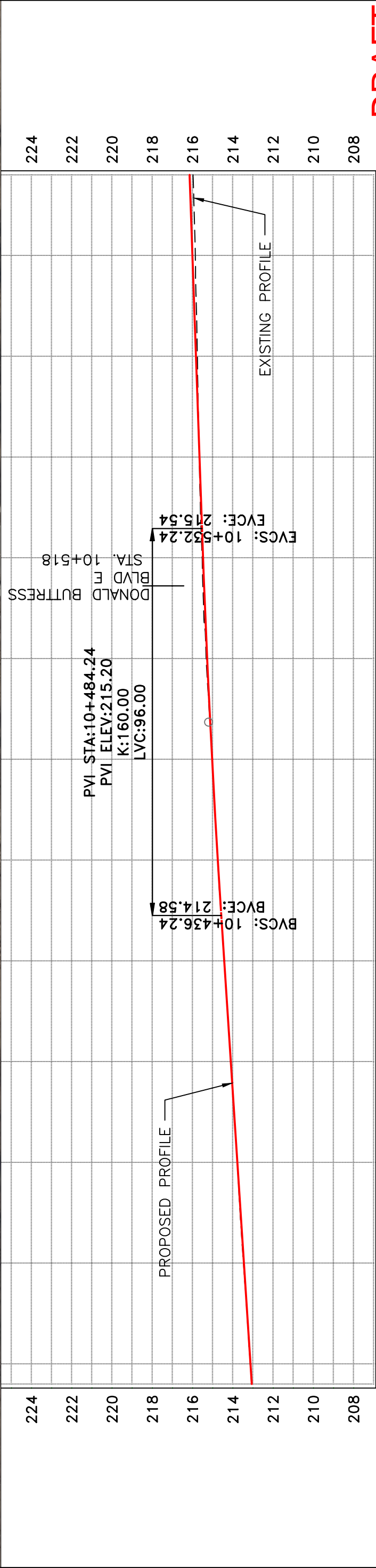
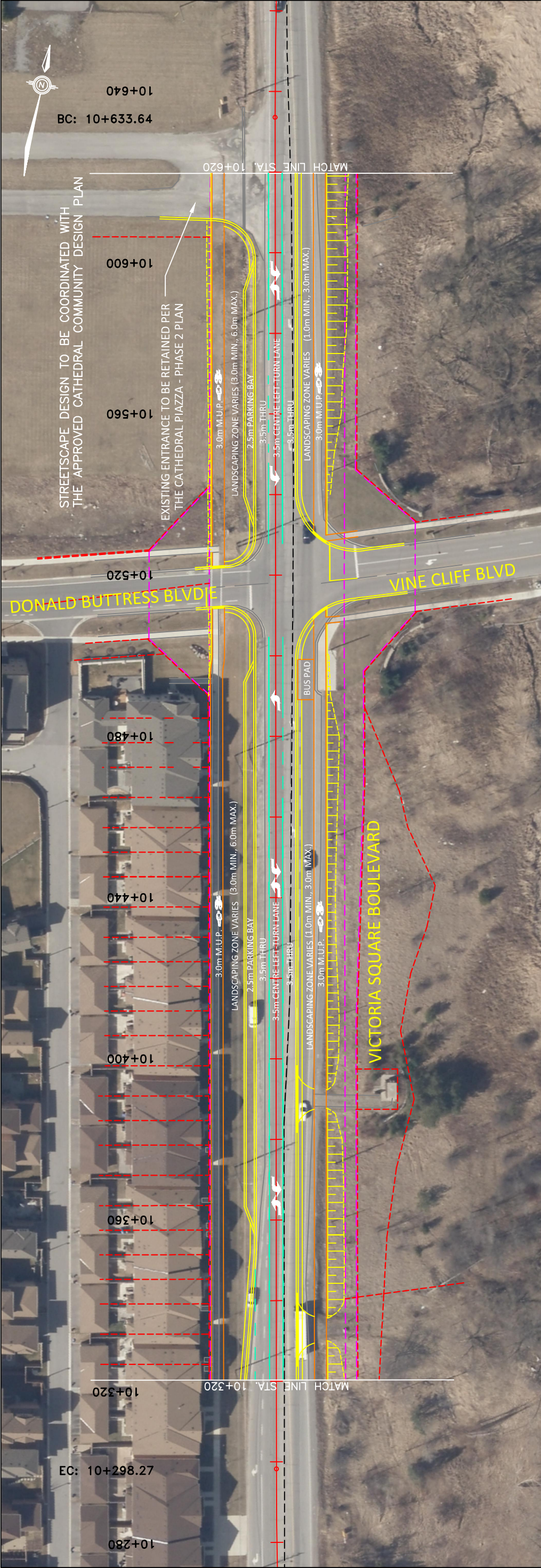
10+250

10+300

10+320

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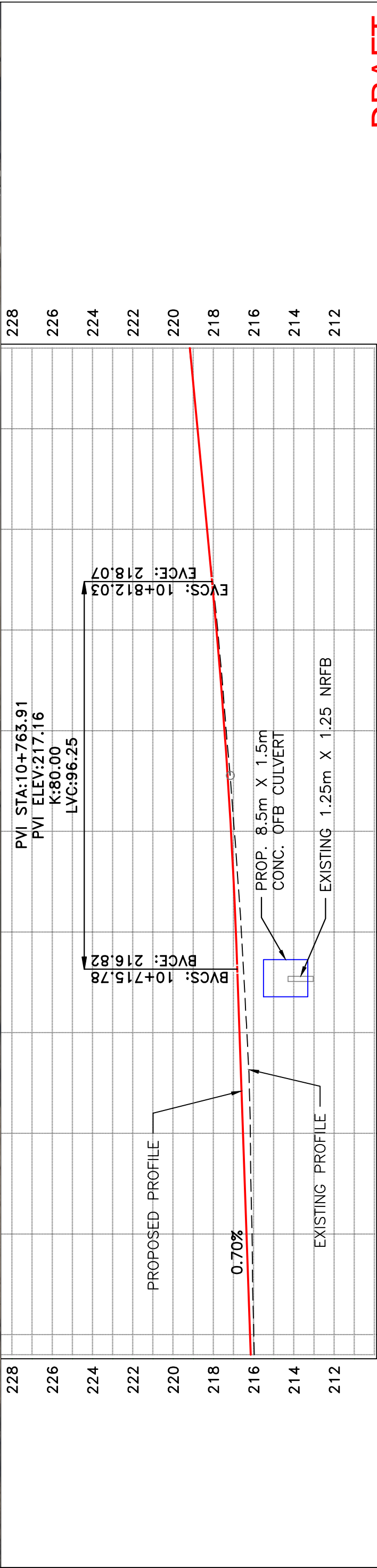
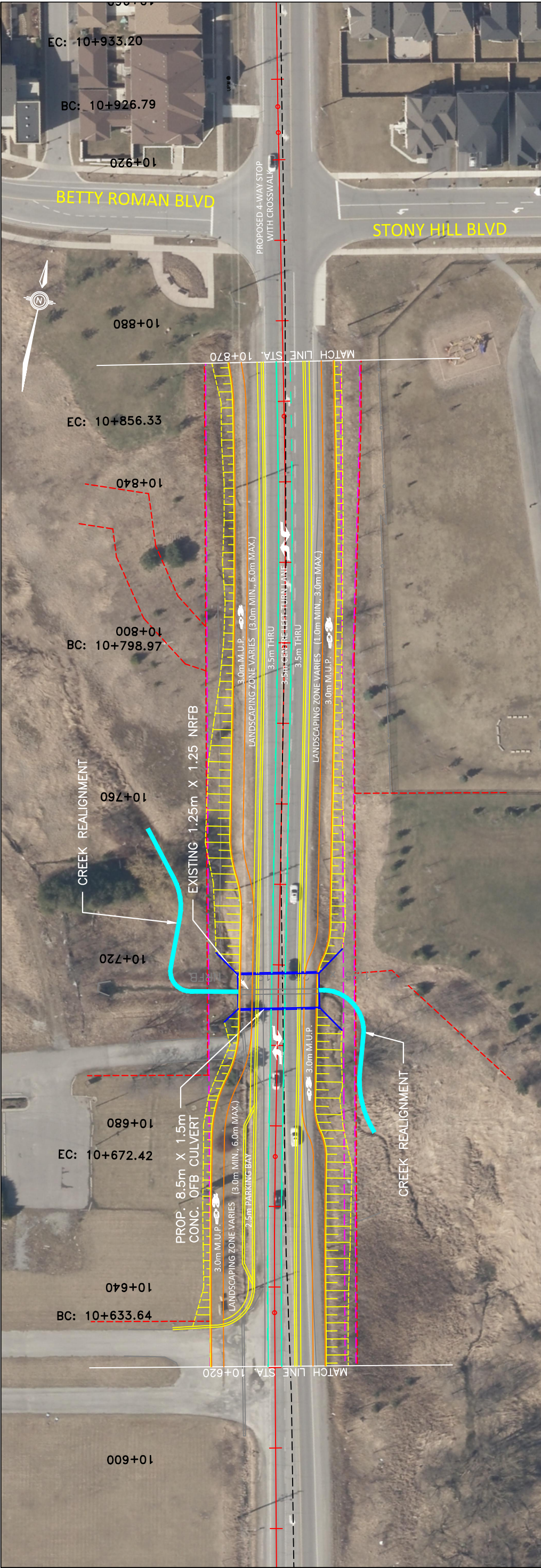




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<div>LEGEND (PLAN)</div> <div><div> PROPOSED MULTI-USE PATH</div><div> EXISTING R.O.W</div><div> LOT LINES</div><div> EXISTING CL ALIGNMENT</div><div> PROPOSED CL ALIGNMENT</div><div> PROPOSED CURB</div></div>		<div>LEGEND (PROFILE)</div> <div><div> PROPOSED PAVEMENT MARKING</div><div> GRADING</div><div> EXISTING UTILITY POLES</div><div> EXISTING CULVERT</div><div> PROPOSED CULVERT</div><div> EXISTING CHAIN LINK FENCE</div></div>		<div>SCALES</div> <div><div> Horizontal 1:1000</div><div> Vertical 1:200</div></div>		<div>HCR</div>		<div></div>		<div>VICTORIA SQUARE BOULEVARD</div> <div>CLASS ENVIRONMENTAL ASSESSMENT</div> <div>PLAN AND PROFILE</div> <div>STA. 10+320 TO STA. 10+620</div>		<div>SHEET.NO</div> <div>02</div> <div>DATE.</div> <div>DEC. 2017</div>
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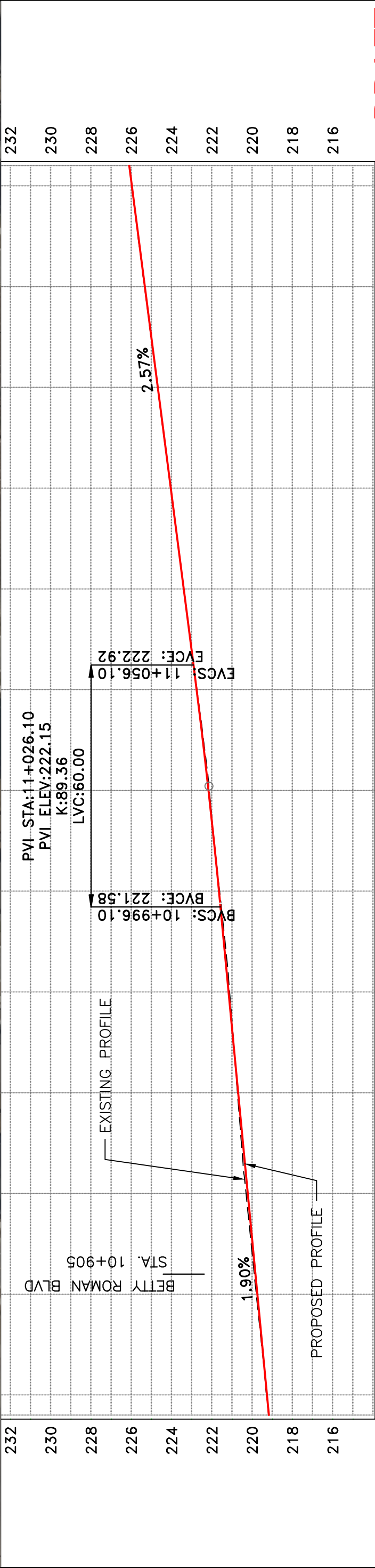
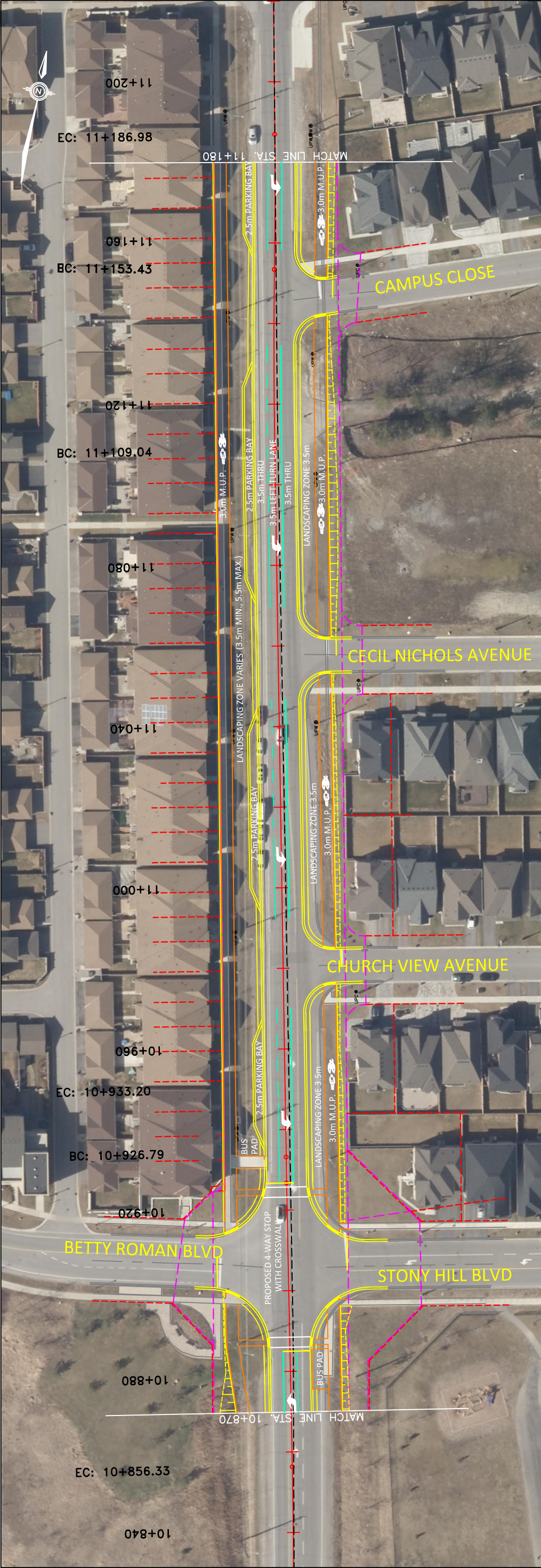




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EXISTING CL ALIGNMENT	PROPOSED CULVERT	Vertical 1:200					
PROPOSED CL ALIGNMENT	EXISTING CHAIN LINK FENCE						
PROPOSED CURB							





LEGEND (PLAN)

PROPOSED MULTI-USE PATH

EXISTING R.O.W

LOT LINES

EXISTING CL ALIGNMENT

PROPOSED CL ALIGNMENT

PROPOSED CURB

PROPOSED PAVEMENT MARKING

GRADING

EXISTING UTILITY POLES

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PROPOSED CULVERT

EXISTING CHAIN LINK FENCE

PROPOSED PROFILE

EXISTING CULVERT

PROPOSED CULVERT

LEGEND (PROFILE)

EXISTING PROFILE

PROPOSED PROFILE

EXISTING CULVERT

PROPOSED CULVERT

SCALES

5m

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10m

Horizontal 1:1000

1m

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2m

Vertical 1:200

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FOR

MARKHAM

VICTORIA SQUARE BOULEVARD  
CLASS ENVIRONMENTAL ASSESSMENT  
PLAN AND PROFILE  
STA. 10+870 TO STA. 11+180

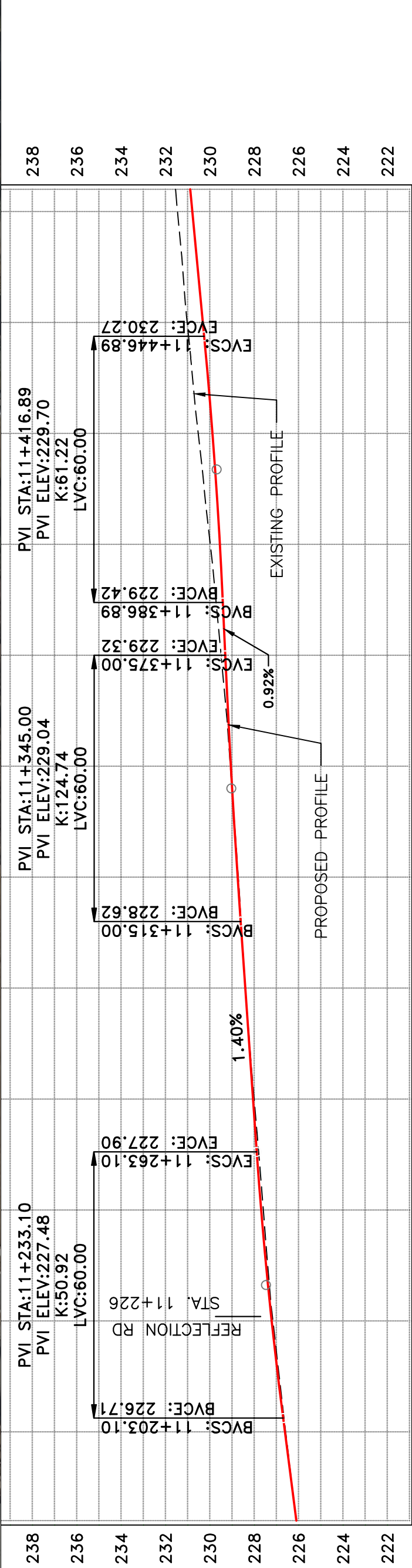
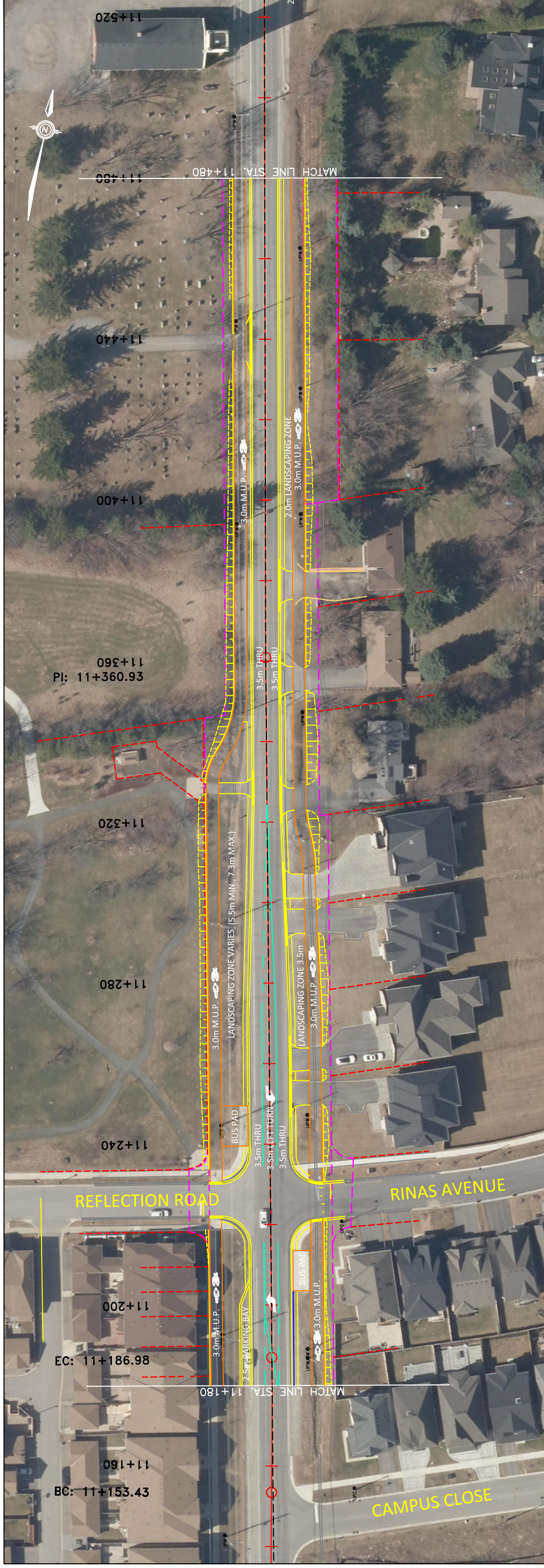
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
















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<p><b>LEGEND (PROFILE)</b></p> <p>  EXISTING PROFILE   PROPOSED PROFILE   EXISTING CULVERT   PROPOSED CULVERT </p>		<p><b>SCALES</b></p> <p>  Horizontal 1:1000   Vertical 1:200 </p>	
<p><b>FOR</b></p>			
<p>VICTORIA SQUARE BOULEVARD CLASS ENVIRONMENTAL ASSESSMENT PLAN AND PROFILE</p> <p>STA. 11+180 TO STA. 11+480</p>		<p>SHEET.NO 05</p> <p>DATE: DEC. 2017</p>	

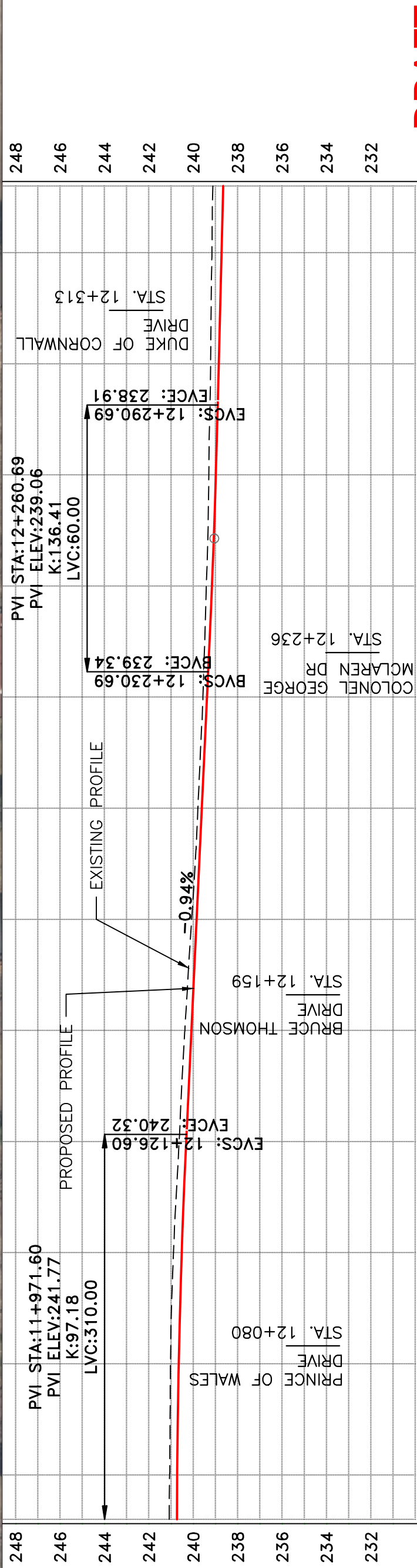
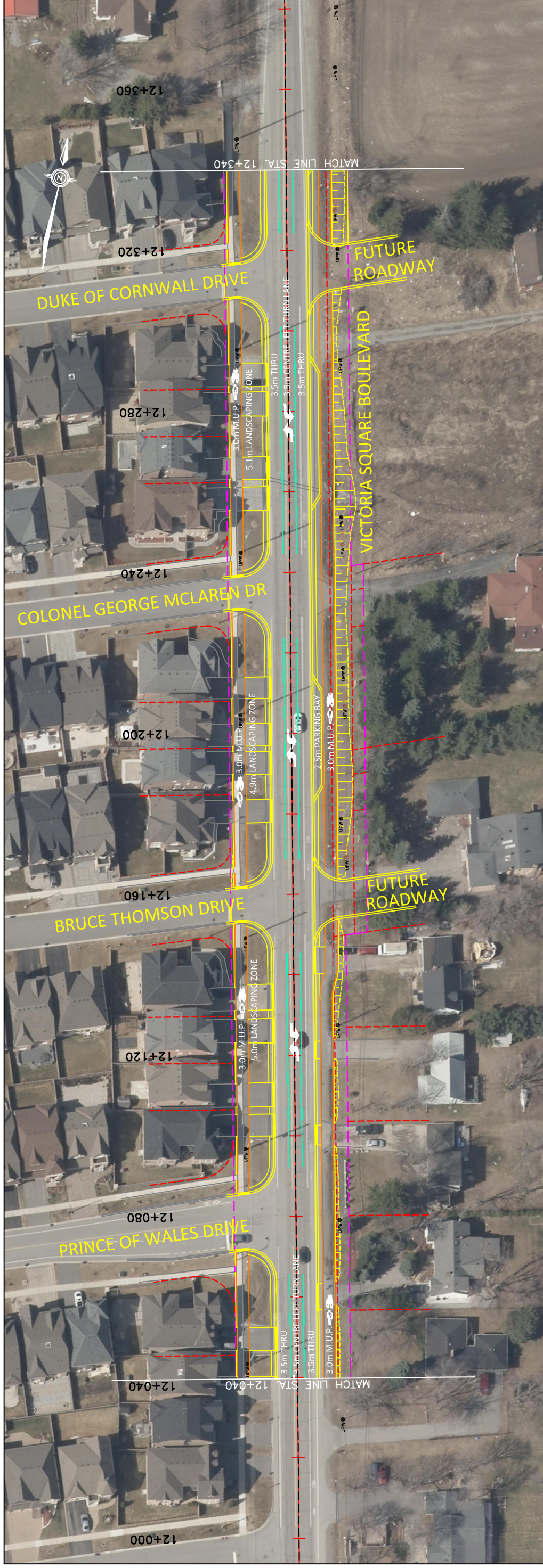












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<p><b>LEGEND (PROFILE)</b></p> <p>  EXISTING PROFILE   PROPOSED PROFILE   EXISTING CULVERT   PROPOSED CULVERT </p>		<p>  5m 0 10m   Horizontal 1:1000   1m 0 2m   Vertical 1:200 </p>	
			
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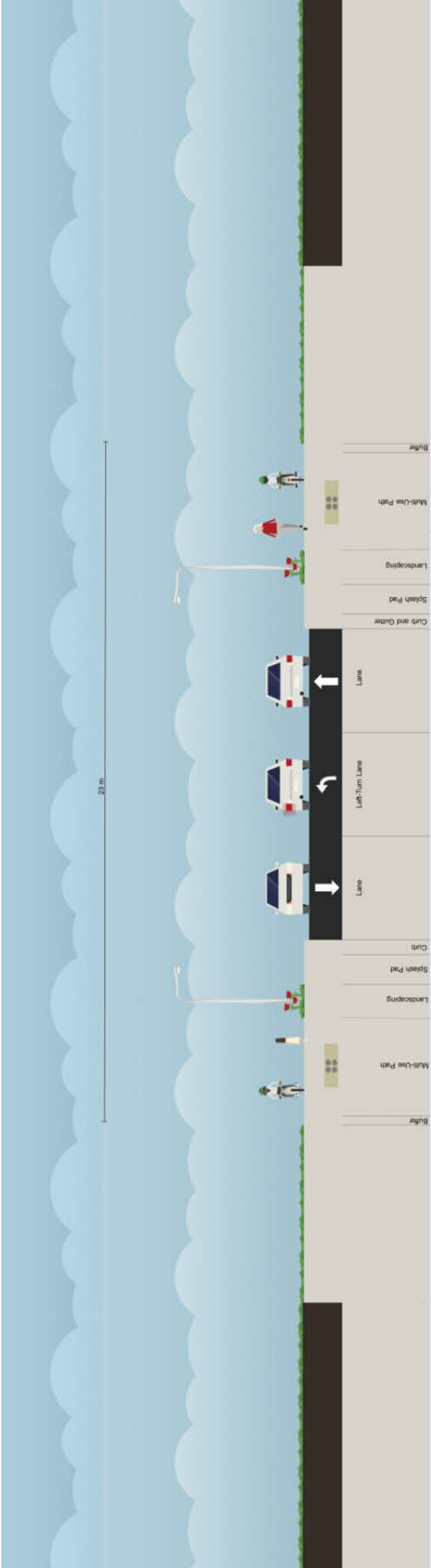








Attachment C1: Preferred Cross-Section for Area 1

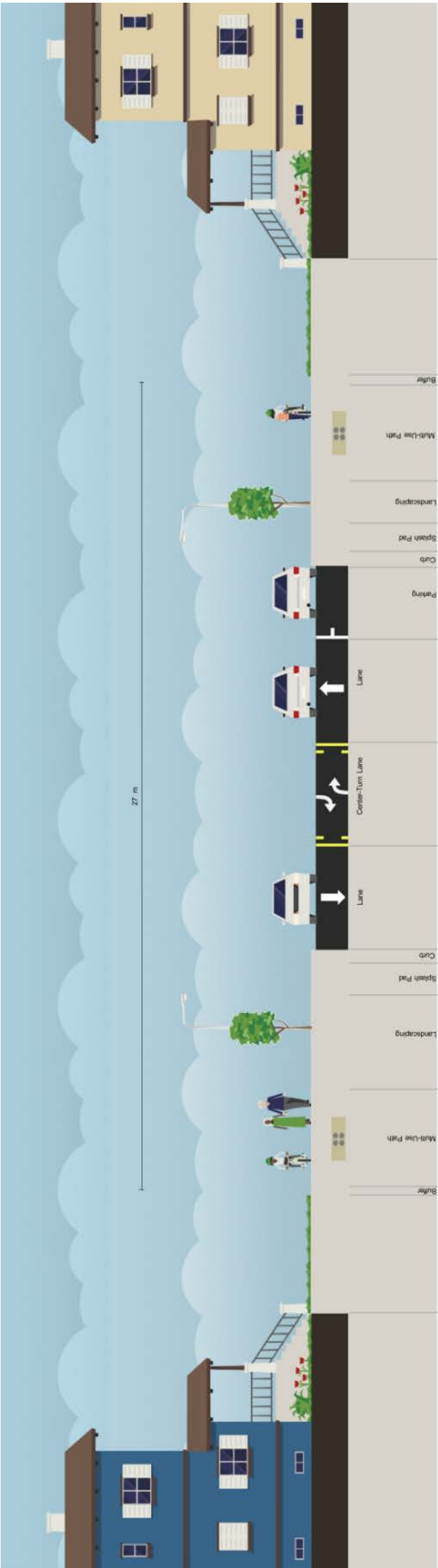


**Area 1: North Gateway**

- 23m right of way
- Two 3.5 m vehicular lanes (one in each direction)
- A 3.5 m one way left turn lane
- 1.75 m landscaping zones (on each side of the ROW)
- Two on boulevard 3.0 m multi-use-pathways (one on each side of the ROW)



Attachment C2: Preferred Cross-Section for Area 2



**Area 2: Residential Main Street**

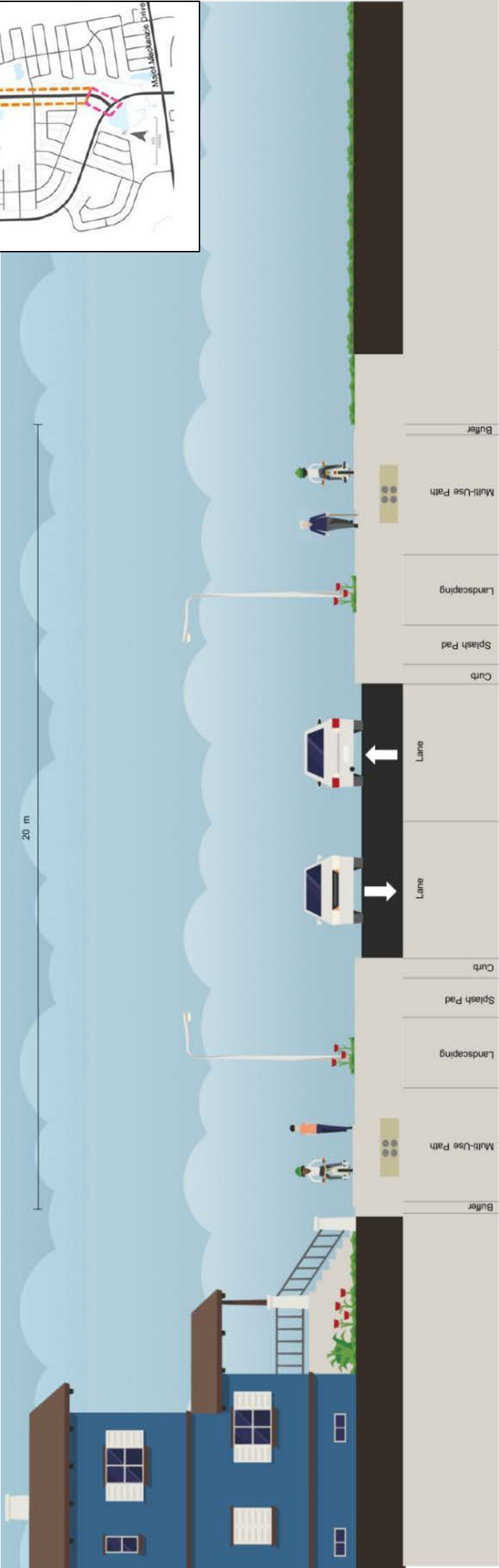
- 27m right of way
- Two 3.5 m vehicular lanes (one in each direction)
- A 3.5 m two way centre left turn lane
- Landscaping zones ranging from 1.75 m to 5.3 m (on each side of the ROW)
- Two on boulevard 3.0 m multi-use-pathways (one on each side of the ROW)
- On-street parking bay on the east side of the ROW



Attachment C3: Preferred Cross-Section for Area 3

Area 3: Hamlet and Cultural Heritage

- 20m right of way
- Two 3.5 m vehicular lanes (one in each direction)
- Landscaping zones ranging from 1.0 m to 7.3 m (but typically 2.0 m) (on each side of the ROW)
- Two multi-use-pathways ranging from 2.4 m to 3.0 m (one on each side of the ROW)

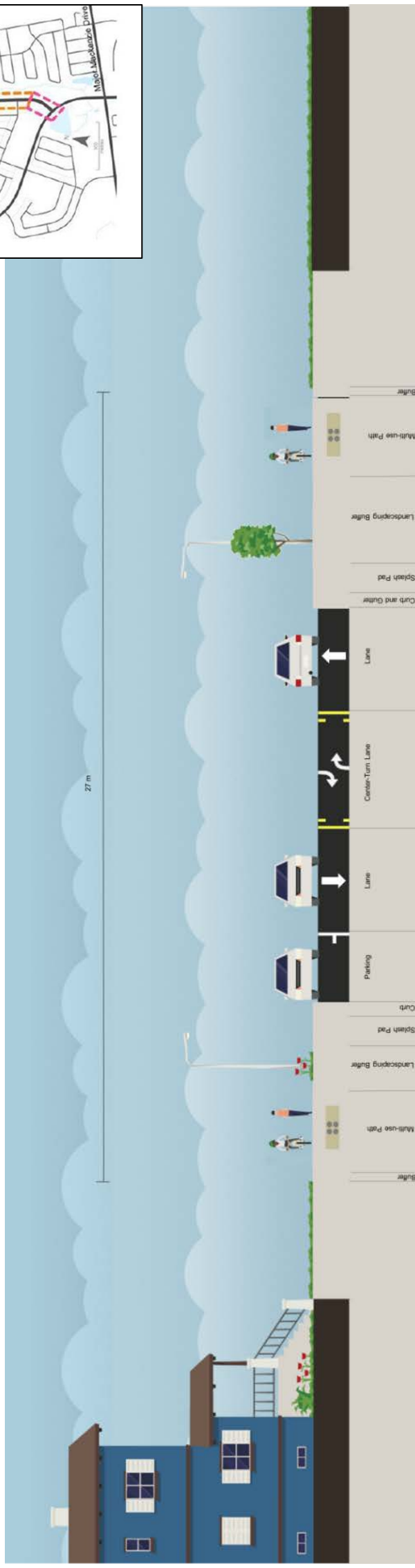




## Attachment C4: Preferred Cross-Section for Area 4

### Area 4: Cathedral and Residential Area

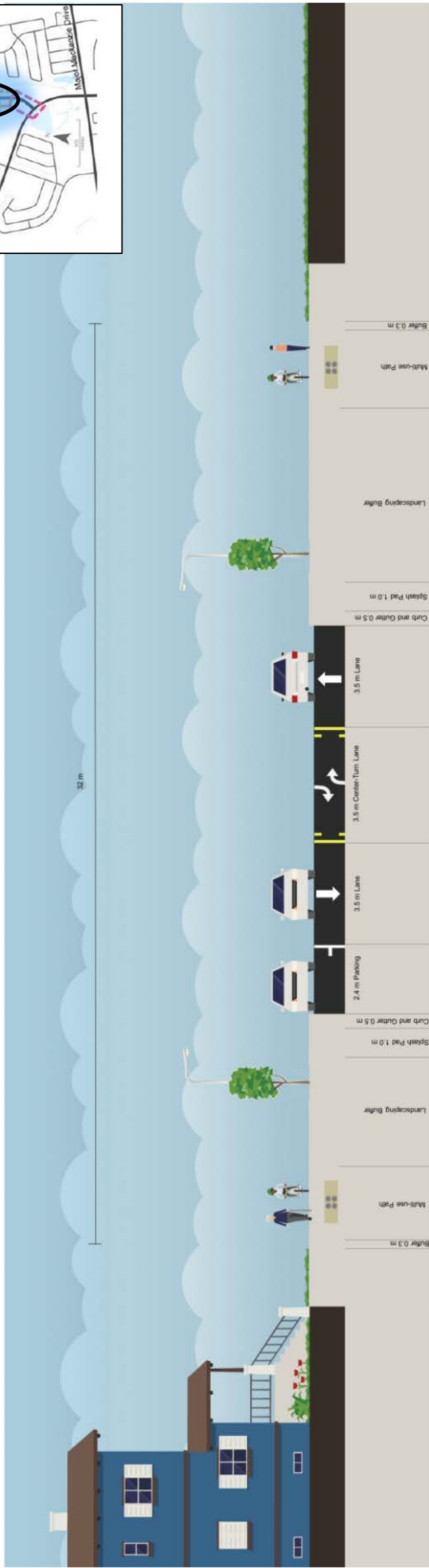
- 27m right of way
- Two 3.5 m vehicular lanes (one in each direction)
- A 3.5 m two way centre left turn lane
- On-street parking bay on the west side of the ROW
- Landscaping zones ranging from 2.0 m to 5.5 m (on each side of the ROW)
- Two 3.0 m multi-use paths (one on each side of the ROW)



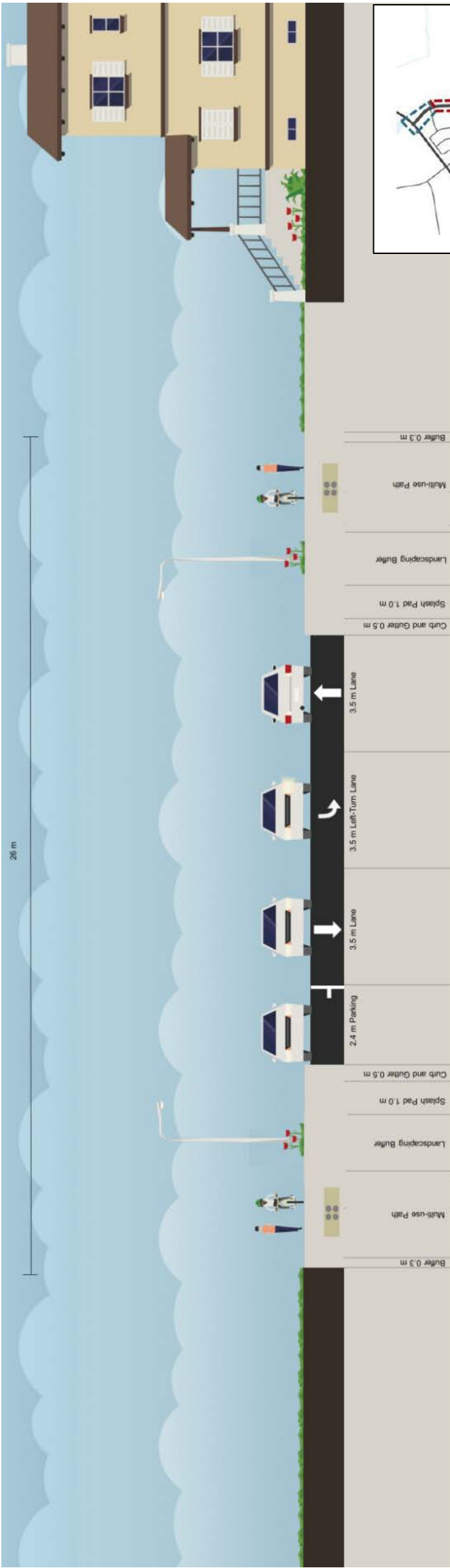
## Attachment C5: Preferred Cross-Section for Area 5

### Area 5: Cathedral Precinct Area

- 32m right of way
- Two 3.5 m vehicular lanes (one in each direction)
- A 3.5 m two way centre left turn lane
- On-street parking bay on the west side of the ROW
- Landscaping zones ranging from 1.0 m to 6.0 m (on each side of the ROW)
- Two 3.0 m multi-use paths (one on each side of the ROW)



Attachment C6: Preferred Cross-Section for Area 6



Area 6: South Gateway

- 26m right of way
- Two 3.5 m vehicular lanes (one in each direction)
- A 3.5 m left turn lane
- A 3.25 m right turn lane (not shown above as it is only required at the Woodbine Avenue south gateway intersection)
- On-street parking bay on the west side of the ROW
- Landscaping zones ranging from 1.0 m to 3.0 m (on both sides of the ROW)
- Two 3.0 m multi-use paths (one on each side of the ROW)

