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Technical Memorandum

To:	Wally Dubyk (City of Ottawa)	Date:	March 26, 2018
Copy:	Derek Howe/Alex Turner (Taggart Realty Management)	Project:	476575 - 01000
From:	Mark Baker/Matthew Mantle (Parsons)		

Re: 3690 and 3630 Riverside Drive
Preliminary Functional Design Drawings

1. BACKGROUND

The attached Preliminary Functional Design drawings (draft) have been provided in support of the TIA submission for 3690 and 3630 Riverside Drive. It is understood that submission of these draft drawings, in combination with the draft TIA Strategy Report, can be used as the basis to deem the TIA submission complete for the purposes of moving forward with the overall planning application.

1.1. TIA STRATEGY REPORT

The TIA Strategy Report identifies several modifications that could be considered to enhance the performance of the nearby transportation network, including provision of auxiliary turn lanes and enhanced facilities for the active travel modes. These modifications, derived through a transportation planning lens, have been identified in the absence of a detailed examination of overall engineering feasibility and cost. Subsequent review of the existing base mapping, including utility information, and topographic survey indicate that there are notable constraints with respect to grade (and the associated slope and existing guiderail) and utilities along the western frontage of Riverside Drive. These are real factors that must be considered in arriving at the most appropriate solution.

As noted in the TIA Strategy Report, there is a deficiency in the sidewalk on the west side of Riverside Drive along the site's frontage. The combination of travel speeds on Riverside (> 60km/h), narrow sidewalk and lack of boulevard result in a pedestrian level of service (PLoS) F. Investment in a wider sidewalk facility would not change the PLoS score unless an additional +2m boulevard could also be provided. This is not possible given the above-noted grade constraints. It is noted that there is higher performing pedestrian facility on the east side of Riverside that currently offers PLoS D/E.

With regards to the provision of southbound auxiliary lanes, the TIA Strategy reports indicates that the auxiliary lane approaching the proposed traffic signal is only needed to support As-of-Right Zoning, and not essential for the land uses associated with the Development Concept Plan. Of greatest impact to the west side of Riverside Drive is the notion of extending the existing southbound auxiliary right-turn lane approaching Hunt Club Drive (or providing dual southbound left-turn lanes) in attempt to address existing operational issues along Riverside Drive and at the Hunt Club Road intersection. Providing an additional turn lane would require the western curb line to shift towards the guiderail by 3-4m. This has notable implications to the grades between the narrow strip Riverside Drive and the proposed Private Road providing site access. Additional detailed design work would need to be conducted to confirm feasibility and cost, although it is anticipated that this would require additional property within the Development Concept or a retaining wall. It is noteworthy that the analysis of vehicle LoS (i.e. SYNCHRO) indicates that the operational benefit of providing additional southbound storage is negligible (LoS F) as the underlying issue is the inability of right-turning traffic to access the turn lane, and the delays at the Hunt Club/Riverside intersection, and not the length of storage per se.

2. PRELIMINARY FUNCTIONAL DESIGN

Based on the foregoing, two different sets of Preliminary Functional Design drawings have been provided for consideration:

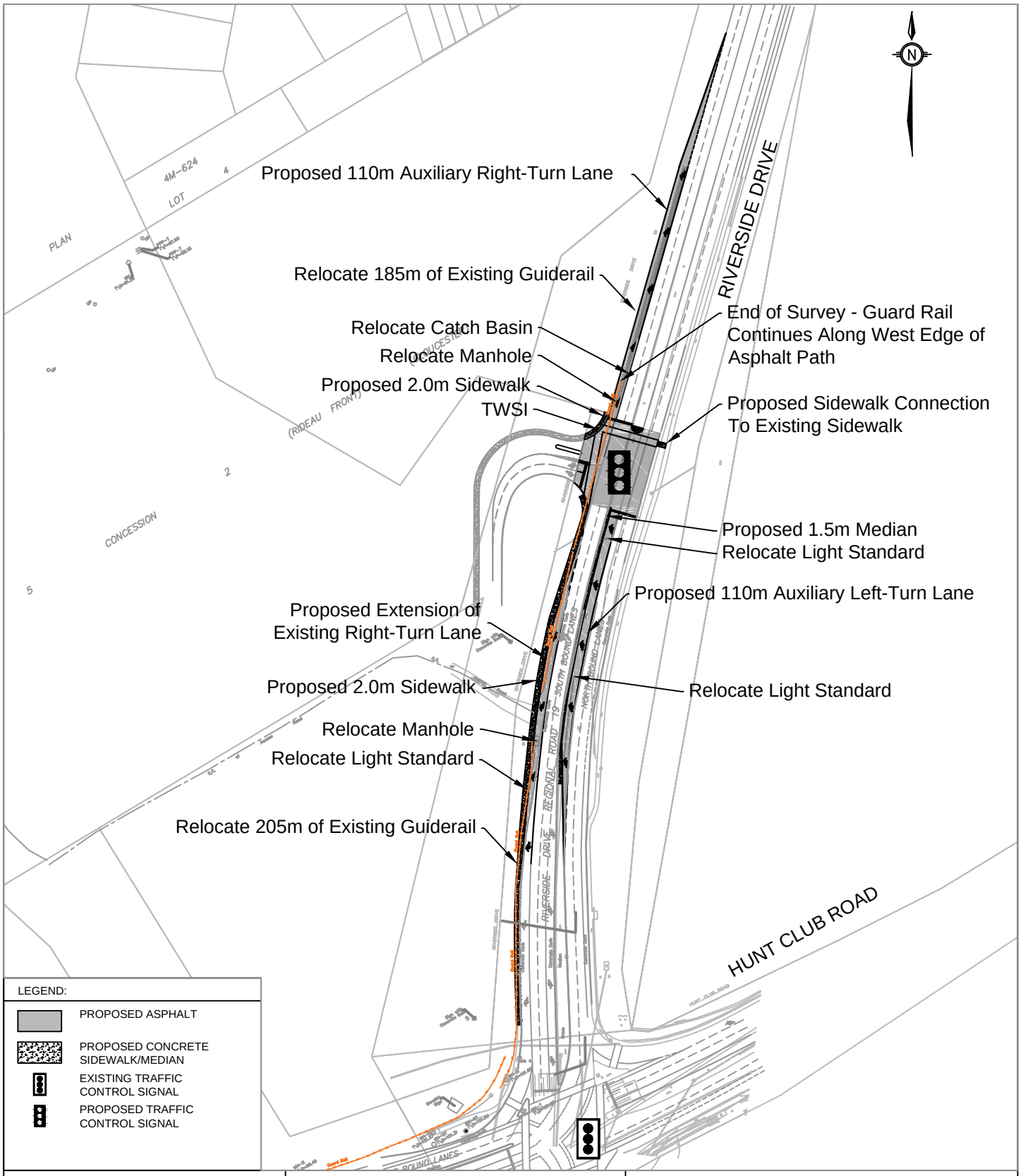
- ***Attachment A:*** The first set of drawings represents an ideal configuration, consistent with the As-of-Right Zoning, that includes auxiliary turn lanes for the northbound left-turn into the site, and southbound right-turn lane into the site and approaching Hunt Club Road (extension to existing). A 2.0m sidewalk is also shown on the west side of Riverside between the proposed traffic signal and Hunt Club Road.
- ***Attachment B:*** The second set of drawings is an alternative configuration, consistent with the Development Concept Plan and also respects the challenges associated with shifting the west curb line of Riverside Drive. A direct taper southbound right is provided approaching the site at the proposed traffic signal, as well as an auxiliary northbound left-turn lane. No modification would be made to the existing auxiliary southbound right-turn lane on Riverside Drive approaching Hunt Club Road. Pedestrian activity along Riverside Drive would be accommodated using the existing facilities on the east and west sides of Riverside Drive. Site patrons seeking the higher quality pedestrian facility would cross Riverside Drive using the proposed traffic signal serving the site. Consideration could be given to upgrading the existing sidewalk on the east side to a wider MUP facility that would also accommodate northbound and southbound cyclists, should this be considered most consistent with the City's overall cycling vision for the Riverside Drive Corridor.

3. RECOMMENDATIONS/NEXT STEPS

The foregoing preliminary assessment suggests that there is limited value in pursuing the ideal configuration further at this time as the implementation is expected to result in negligible improvement to the pedestrian and vehicle performance for the associated high costs that are anticipated. The alternative configuration is considered to be a more appropriate solution given the known constraints, but further discussions are needed with City staff.

Attachment A

Preliminary Functional Design: Ideal Configuration



TRANSPORTATION SERVICES DEPT

PROPOSED ROADWAY MODIFICATIONS

RIVERSIDE DRIVE, 250m NORTH OF HUNTCLUB ROAD

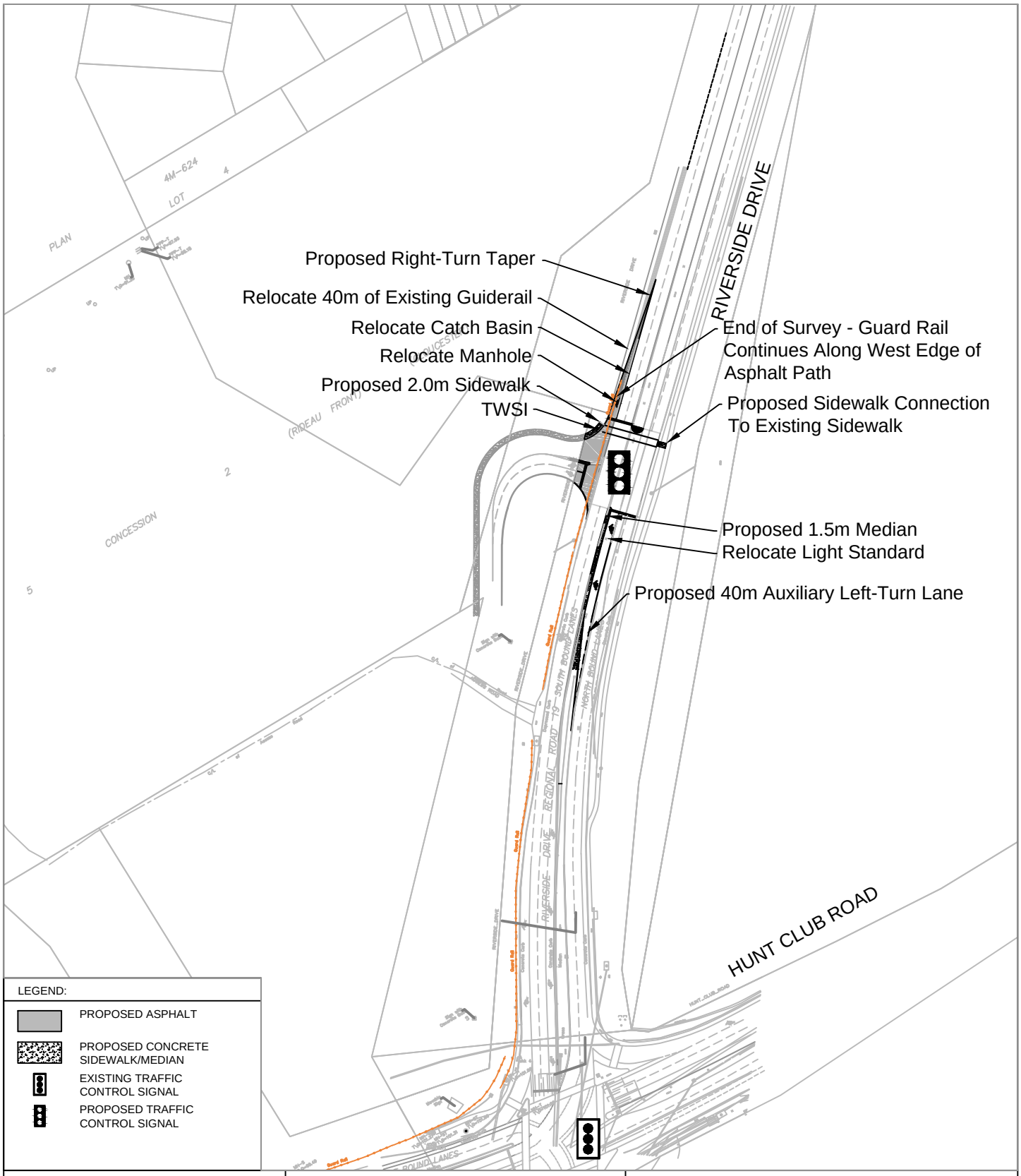
AS-OF-RIGHT CONFIGURATION

Transportation Engineering Services Branch

Approved By: N. PAUDEL	Drawing No.: RMA-2018-TPD-###-B
Completed By: PARSONS	
Scale: N.T.S.	Date: MAR. 2018

Attachment B

Preliminary Functional Design: Alternative Configuration



TRANSPORTATION SERVICES DEPT

PROPOSED ROADWAY MODIFICATIONS

RIVERSIDE DRIVE, 250m NORTH OF HUNTCLUB ROAD

ALTERNATIVE CONFIGURATION

Transportation Engineering Services Branch

Approved By: N. PAUDEL	Drawing No.: RMA-2018-TPD-###-B
Completed By: PARSONS	
Scale: N.T.S.	Date: MAR. 2018