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Memorandum

To/Attention	Mike Giampa Senior Engineer, Infrastructure Approvals City of Ottawa 110 Laurier Avenue West Ottawa, ON K1P-1J1	Date	November 21, 2019
From	David Hook, P.Eng.	Project No	121658
cc	Vincent Denomme, Claridge Homes		
Subject	760 River Road - Transportation Memorandum		

Introduction

A Transportation Impact Assessment (TIA) has been prepared on behalf of Urbandale Corporation for 708 and 750 River Road in support of an ongoing Plan of Subdivision application (D07-16-19-0014) for Riverside South Phase 12. Prior to undertaking the Phase 12 TIA, it was agreed to by City staff that 760 River Road (Claridge Homes) would be explicitly accounted for in this study, as both developments are reliant on a single access off River Road.

The objective of this memorandum is to demonstrate that the traffic impacts associated with the 760 River Road development have been sufficiently accounted for in the Phase 12 TIA, and therefore unnecessary to undertake a separate TIA in support of the 760 River Road development application by Claridge. There have been no subsequent changes to the road configuration, land use or density of the 760 River Road concept plan referenced in the Phase 12 TIA, therefore the conclusions and recommendations of the study remain valid.

Description of Proposed Development

A summary of the relevant information regarding the 760 River Road development contained in the Phase 12 TIA is presented below:

- The 760 River Road will consist of 55 single-family homes and will have direct access to River Road via a local road opposing Atrium Ridge. This local access is referred to as '760 River Access' in the Phase 12 TIA, and will be shared with the 750 River Road subdivision immediately to the north.
- The Phase 12 TIA assumed that the 760 River Road development would be fully built out and occupied by 2024, coinciding with full build-out of the Phase 12 development.

The Draft Plans of Subdivision for both 760 River Road and Phase 12 were overlaid, as presented in Exhibit 2 of the Phase 12 TIA, and included in the **Appendix** of this memorandum for reference.

760 River Road Trip Generation

The trip generation for 760 River Road is presented in **Table 1**, with results stratified by the projected mode share at the 2024 built-out year and 2029 horizon year.

Table 1 – Peak Hour Person Trips by Mode and Horizon Year (760 River Road)

MODE	2024 AM		2024 PM		2029 AM		2029 PM	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Auto Driver	13	32	33	21	13	32	33	21
Transit	2	6	5	3	2	6	5	3
Auto Passenger	3	8	7	5	3	8	7	5
Walking	0	0	0	0	0	0	0	0
Cycling	0	0	0	0	0	0	0	0
Other	1	3	2	2	1	3	2	2
Total	70		78		70		78	

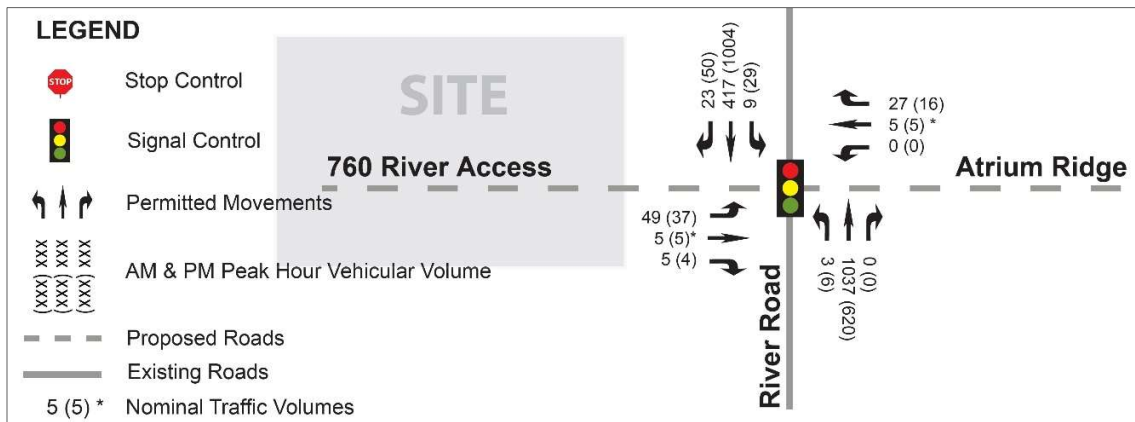
Source: Table 12 from 'Riverside South Phase 12 TIA'

Based on the trip generation provided above, approximately 45 and 54 two-way vehicular trips are projected to occur during the weekday morning and afternoon peak hours, respectively, upon full build-out of the proposed development.

Total Traffic

The Future (2029) Total Traffic volume projections presented in the Phase 12 TIA, which also align with the assumed 'build-out plus 5 year' timeline for the 760 River Road development, are shown in **Figure 1** below for the intersection of River Road & 760 River Access/ Atrium Ridge. These traffic volumes were developed with consideration of all known developments anticipated within the Riverside South community as well as impacts from regional growth along River Road up to the 2029 horizon year.

Figure 1 – River & 760 River Access/ Atrium Ridge – Future (2029) Total AM & PM



Source: Exhibit 14 from 'Riverside South Phase 12 TIA'

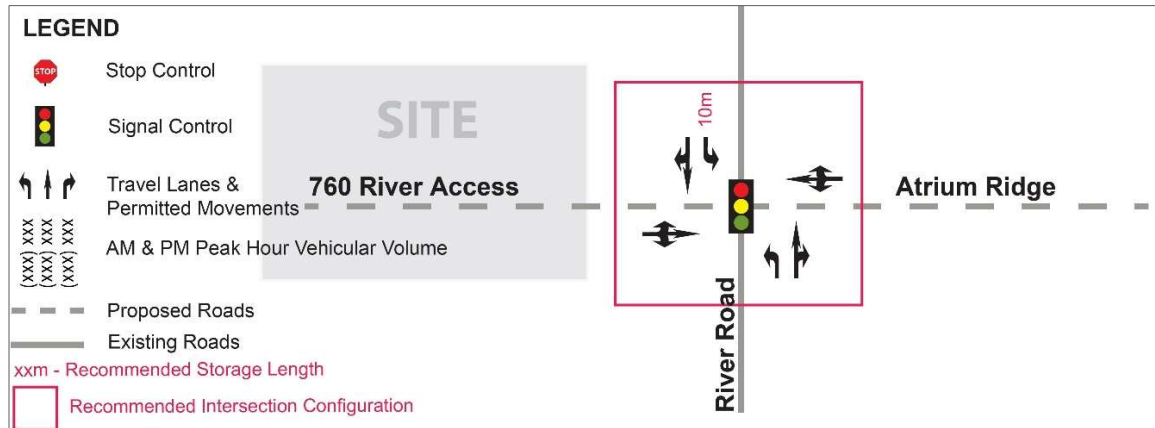
Traffic Analysis

Based on the results of the traffic analysis from the Phase 12 TIA, the River and Atrium/ 760 River Access intersection is expected to experience significant delays on the sidestreet movements and will require traffic signals to operate at acceptable levels of service (i.e. LOS 'D' or better) by the 2024 build-out year. Traffic signals are anticipated to be operationally required despite signal warrants not being met beyond the 2029 horizon year.

Both the 95th percentile queue lengths from the Synchro analysis, as well as first-principles queue length calculations indicate that a southbound left-turn storage bay will be required to alleviate congestion of the southbound through movement during the weekday afternoon peak hour, permitting the intersection to operate at LOS 'D' or better by 2029. Through the recent construction of River Road, sufficient pavement width has been reserved for this future auxiliary lane. An opposing northbound left-turn lane will also be required but with nominal storage length since this movement is expected to experience low demand (see **Figure 1** above). Shared through-right approaches are recommended along River Road, and the sidestreet approaches are expected to operate at an acceptable levels of service without left or right-turn auxiliary lanes, according to the traffic analysis conducted as part of the Phase 12 TIA. As Atrium Ridge and the proposed access on the west side of the intersection are local roads each with a right-of-way of only 20m, it is not possible to provide auxiliary lanes on these sidestreet approaches. The results of the traffic analysis presented in the TIA will inform the functional design requirements for the forthcoming Roadway Modification Application (RMA) for this intersection.

The lane configurations and intersection control for the River & 760 River Access/ Atrium Ridge intersection are presented in **Figure 2** below.

Figure 2 – Future (2029) Lane Configurations & Intersection Control



Source: Exhibit 14 from 'Riverside South Phase 12 TIA'

Conclusion

The travel demand impacts associated with the 760 River Road development were considered exclusively in the Transportation Impact Assessment (TIA) for Riverside South Phase 12. As there has been no revisions to the Draft Plan for 760 River Road including the land use statistics and the expected build-out date indicated in the TIA, the conclusions and recommendations of this study remain valid.



Appendix A - Draft Plan of Subdivision



- Riverside South Phase 12 Development Limits
- 760 River Road Development Limits

