

Screen Nova Scotia - Sound Stage Development Supplemental Information - Transportation and Stormwater Reponses to HRM and NSPW Comments

To whom in may concern:

Project Number
23-085

Fathom Studio prepared a Transportation Impact Statement (November 29, 2023) for the proposed Screen Nova Scotia Sound Stage Development located just south of Exhibition Park. Comments for the overall project were received by HRM in March 2024 and included a few items related to the Transportation and Stormwater components of the study. This letter is intended as a supplement to the original work to specifically address these comments.

Comments from: Nova Scotia Public Works

1. Please apply a trip generation rate that would best fit the land use.

The HRM Guidelines for the Preparation of Transportation Impact Studies suggest that the “available trip generation methodologies include, from most to least preferred:

- Local surveys or data, provided that conditions are similar to those for the proposed development or that differences are accounted for;
- “First principles” calculations (eg. converting number of employees into trips through application of parameters such as vacancy rates, peaking factors, etc.);
- Default parameters provided by Halifax Regional Municipality staff;
- ITE trip generation rates provided that transferability issues are addressed.”

Fathom generally followed the second point from above through discussions with the project developers and established the most likely peak hour volumes based on anticipated staffing and typical day-to-day operations. These volumes were in the range of 30-40 vehicles per hour for typical weekdays of traffic, though for the purposes of the study, operational analysis was based on about 100 vehicles entering and exiting the site during the peak hours.

If we consider the Institute of Transportation Engineers Trip Generation Guide (11th Edition) the land uses that may best represent the development are shown in the table below along with typical peak hour trips.

Land Use	Trip Code	Foot-print	Variable	Daily Weekday			AM Peak			PM Peak		
				In	Out	Total	In	Out	Total	In	Out	Total
Single Tenant Office Building	715	60	/1000 ft ²	392	392	784	99	12	111	16	90	106
Research and Development Center	760	60	/1000 ft ²	332	332	665	51	11	62	9	50	59

As the space within the building is composed of large open areas and not representative of a typical office building, the trip generation rates are expected to be significantly less that those shown above for the office building. This further suggests that our use of 100 vehicle trips during the peak hours is likely conservative.

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2. Label distance between accesses.

The distance between driveway centrelines is approximately 120 meters as shown in the figure to the right.

3. Provide the parking demand calculation using the latest (ITE Parking Generation Manual).

The most recent 6th edition of the Institute of Transportation Engineers (ITE) Parking Generation Guide was used to estimate potential parking demand for this site. Similar to the Trip Generation Rates, there is not a specific land use code that directly addresses operations at a facility such as the Sound Stage.

The nearest relevant land uses include:

Land Use 710 - General Office Building: Based on total floor area, the average parking demand would be in the range of 110-120 parked vehicles, with 85th percentile values of about 180 vehicles. Using employees as an independent variable, and assuming a high end estimate of 50 employees on site (typically expected to be significantly less than this), the parking requirements would be about 40 vehicles on average with 85th percentile values of 50 parked vehicles.

Land Use 760 - Research and Development Center: This land use suggests an average parking requirements for about 155 vehicles with 85th percentile value of 166 parked vehicles based on 60,000 square feet of space.

While the proposed parking at the facility can accommodate both scenarios, both are considered to significantly exceed the typical daily parking demand for this site based on first principles calculations.

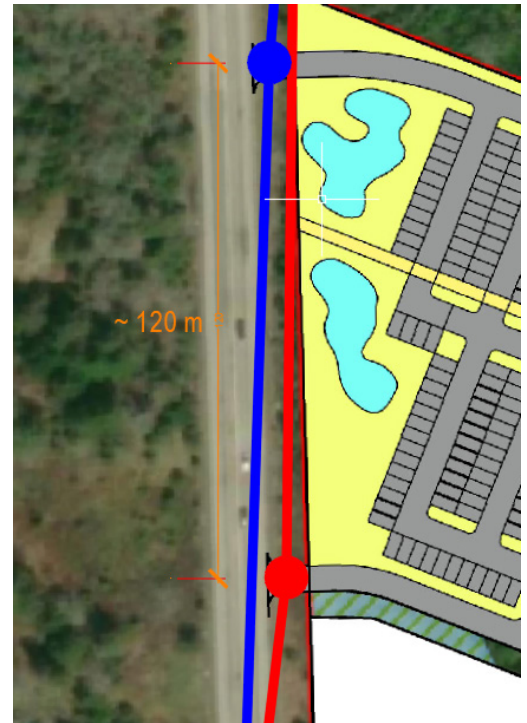
4. Please include truck turning templates for WB-21 (at both entrances).

The attached drawings show turning movements for both access points as requested using a standard Transportation Association of Canada WB-20 Design Vehicle. Two points are particularly relevant at this stage of the project:

- This project is still in the early approvals stages and detailed design work is not yet underway. Once the development is approved to proceed, additional details on truck turning and associated geometric requirements would be provided.
- The Transportation Impact Assessment indicated that the movement of large trucks to and from the site should be restricted to the central access point as there are sight distance restrictions at the north access for large trucks.

For informational purposes, the figures on the following page show that both intersections functionally operate in a very similar manner with the driveway corner radii being the critical geometric criteria that defines the ability of the truck to enter and exit Prospect Road without encroaching into adjacent lanes. It is anticipated that the central southern access will be constructed with two- or three-point compound curves on each radius to better accommodate the swept path of larger trucks. The northern access is expected to have reduced turn radii as truck movements will be restricted at this access point.

In anticipation of Prospect Road being widened to accommodate a dedicated left turn lane into the development, the figure to the below right shows the approximate edge of existing lanes on Prospect Road (dashed lines), with an expanded cross section which adds 1.75 meters to the outside of each lane. It is likely that as detailed design proceeds, the southern access will include a three lane cross section

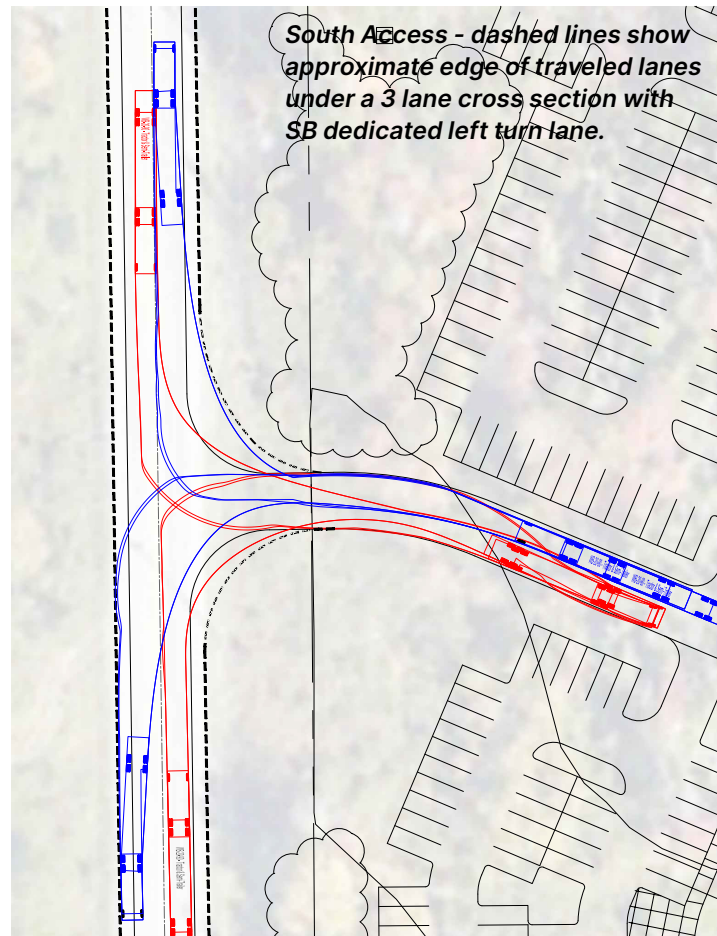
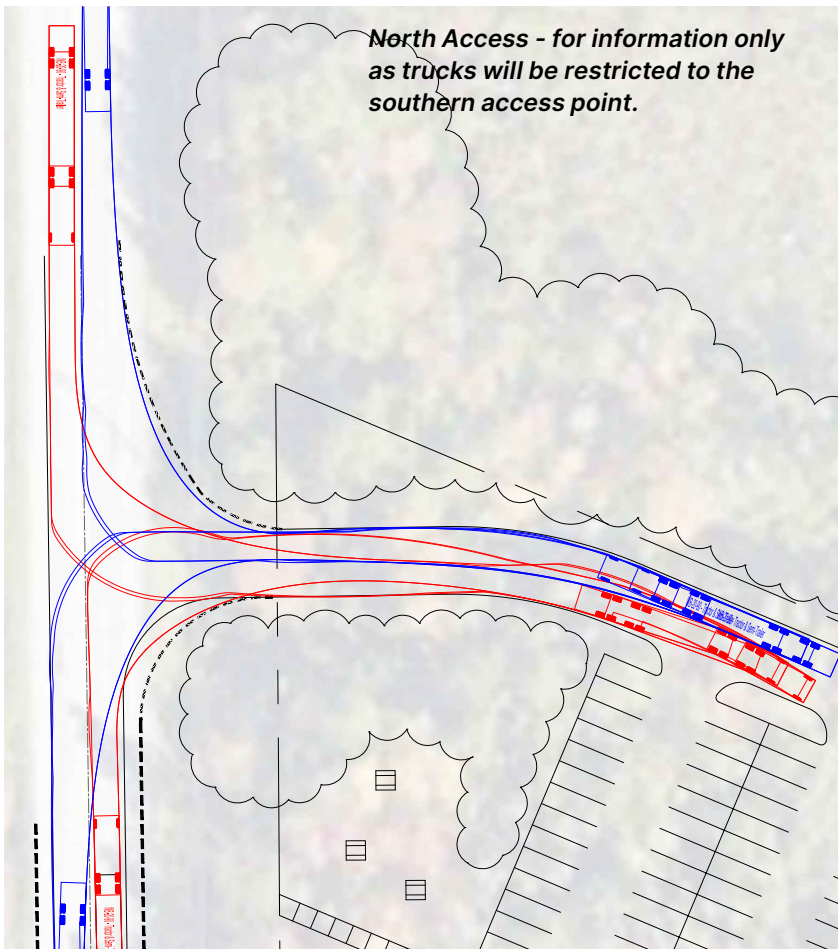


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(2 exit lanes and 1 entry lane) to better accommodate truck movements. Based on this preliminary analysis, larger WB-20 vehicles can be accommodated on site, provided that appropriate geometric design features are addressed during the typical detailed design process.

As noted in the comments from Nova Scotia Public Works "Please note that the following will be required at the time of permitting: Provide geometric access designs for both accesses for review; and, Submit the proposed left turn lane for Route 333 for review." Both items will be provided as required at the appropriate stage of detailed design.

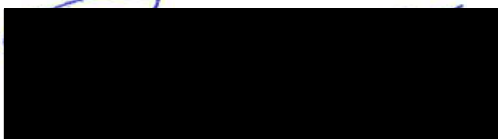


Comments from: HRM and Halifax Water

The comments included a number of references to additional stormwater management requirements design references to be addressed prior to the Grade Alternation and Building Permit stage, which are typical part of due process and are agreed to. In general, Halifax Water and HRM has noted that this area is beyond the service boundary and therefore have provided limited comments with respect to municipal infrastructure.

Should there be any questions or additional information required, please contact the undersigned.

Sincerely,



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