

File 124138

November 13, 2024

Farzan Baradarani
baradarani.f@gmail.com

Re: 9880 Beachwood Road, Town of Collingwood
Access Review Letter

Dear Farzam:

As per your request, we have prepared this access review letter in support of the proposed severance and development of 9880 Beachwood Road in the Town of Collingwood (the site location is illustrated in Figure 1). As the development will only result in the creation of two residential lots, the Town is not concerned with traffic related impacts but rather has requested a review that focuses on the proposed driveways with respect to location and available sight lines. Our review, the findings of which are provided below, has been conducted in context of the applicable industry standards.

ROAD NETWORK

Beachwood Road

As per *Schedule 6: Transportation Plan* of the *Official Plan of the Town of Collingwood*¹, Beachwood Road is classified as a provincial highway. Beachwood Road, formally Highway 26, is currently under the jurisdiction of MTO, with future plans to transfer the road to the Town. The timing of the transfer is still to be determined. For the purpose of this review and recognizing the future transfer to the Town, Beachwood Road has been considered reflective of an arterial road. The road is oriented east-west and has a 2-lane (one travel lane per direction) rural cross-section with gravel shoulders and open ditches across the frontage of the site. The posted speed limit is 50 km/h, thus a design speed of 60 km/h has been assumed.

The aerial mapping of the area road network is provided in Figure 2.

DEVELOPMENT DETAILS

The proposed development will consist of the severance of 9880 Beachwood Road into two residential lots, each to be developed as a single family detached unit. The new lots will both have driveway access to Beachwood Road. The site plan is provided in Figure 3.

¹ *Official Plan of the Town of Collingwood*. Town of Collingwood. December 2023.

ACCESS

As noted above, each lot will be served by a residential driveway on Beachwood Road. The following section provides a review of the proposed driveways with respect to location and configuration. The review has been completed in context of the recommended practices provided in the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads*² and the standards provided in Ontario Provincial Standard Drawing (OPSD) 351.010S for urban residential entrances (OPSD 351.010 is provided in Appendix A for reference).

Location

The proposed driveways are to be located on the north side of Beachwood Road between Churchill Court and the access to the adjacent church. The driveway to the west lot will be located approximately 21 metres east of Churchill Court (measured along edge of road from centre of Churchill Court to centre of driveway), whereas the driveway to the east lot will be located approximately 27 metres west of the church access (measured centre of access to centre of access). The driveway locations are illustrated in Figure 4.

Corner Clearance

Corner clearance is the minimum suggested distance between a proposed access and an adjacent intersection or driveway. The distance is typically measured from the near curb of the adjacent street/access to the near edge of the proposed access. The corner clearance distance consists of three measurements: the corner curb radius of the adjacent intersection or access, a tangent section and the radius of the proposed access. The tangent section provides separation between the end of the adjacent intersection corner radius and the end of the proposed access radius. For a residential access, TAC guidelines recommend a minimum tangent length of 2.0 metres from the nearest intersection and 1.0 metres from the nearest adjacent access. The available tangent lengths between the proposed driveways and adjacent intersection/accesses are illustrated in Figure 5.

Churchill Court and West Access

The tangent length between the corner radii of Churchill Court and the west access is 0 metres (as illustrated in Figure 5, the corner radii terminate at the same point). The lack of separation in terms of tangent length is due to the existing compound radius at Churchill Court which extends farther down Beachwood Road than would a typical radius. As Churchill Court is a short cul-de-sac that serves 4 residences, the existing compound radius is not considered necessary (compound radii are typically employed to accommodate the turning requirements of large vehicles, such as tractor trailers). In this

² *Geometric Design Guide for Canadian Roads, Chapter 8*. Transportation Association of Canada. June 2017



respect, the corner radius at Churchill Court could be reduced to provide a 2-metre tangent between the respective radii. This can be achieved through a simple restriping of the corner radius at Churchill Court to replace the compound radius with a standard radius. A sketch is provided in Figure 6 illustrating the revised striping and resulting 2 metre separation.

West Access & East Access

The tangent length between the proposed driveways is 0.7 metres, which is slightly less than TACs suggested minimum tangent. Recognizing that the driveways are low volume driveways (1 trip per peak hour) each serving a single residential lot, the reduced tangent is not problematic. The overall separation between the two residential driveways is 3.7 metres (measured edge of driveway to edge of driveway) which is typical of the separation realized in many residential subdivisions.

East Access & Church Access

The tangent length between the east access and the church access is approximately 11 metres, which satisfies the TAC guidelines.

Width

As per TAC, a residential access should have a width in the order of 3.0 to 7.3 metres. OPSD 351.010 requires a width of 3.0 to 4.3 metres for single lane driveways and 6.0 to 7.3 metres for double lane driveways. As per site plan, both driveways provide a width of 6.0 metres, thus satisfying the TAC guidelines and OPSD requirements.

Angle of Intersection

TAC recommends that the angle of intersection between an access and intersecting road be between 70° and 110°, with the ideal angle being 90° (i.e. perpendicular). Given the horizontal curve on Beachwood Road, orientation of the lot fabric and property constraints, a 90° angle of intersection is not possible; however, an angle of approximately 80° (measured at the centreline of each driveway and the centreline of Beachwood Road) is provided, which is within TACs noted tolerance. As such, the angle of intersection for each driveway is acceptable.

SIGHTLINE ASSESSMENT

Beachwood Road has a posted speed limit of 50 km/h and an assumed design speed of 60 km/h. For a design speed of 60 km/h, the Transportation of Canada (TAC) *Geometric Design Guide for Canadian Roads* recommends a minimum stopping sight distance of 85 metres.

The available sightlines to/from the west along Beachwood Road at the proposed driveway locations are in excess of 85 metres (at 90 metres, vehicles at the stop bar on Sandford Fleming Drive on the opposite



side of Highway 26 are clearly visible from the proposed driveways); whereas the sight lines to/from the east are in excess of 150 metres. The sightlines are illustrated in Figure 7.

In consideration of TAC guidelines, the available sightlines are acceptable.

SUMMARY

This letter has reviewed the proposed driveway locations for 9880 Beachwood Road in context of applicable industry guidelines and standards. The review has considered the access locations, configuration and the available sightlines along Beachwood Road. Based on our review, the design and location of the driveways are considered acceptable as proposed.

Should you have any questions regarding the above, please do not hesitate to contact us.

Yours truly,

Tatham Engineering Limited



David Perks, M.Sc., PTP
Transportation Planner, Group Leader
DP/JV:rlh



John Velick, P.Eng.
Manager - Transportation



Figures 1 - 7



Source: Simcoe Maps

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Figure 1: Site Location





Source: Simcoe Maps

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Figure 2: Area Road Network

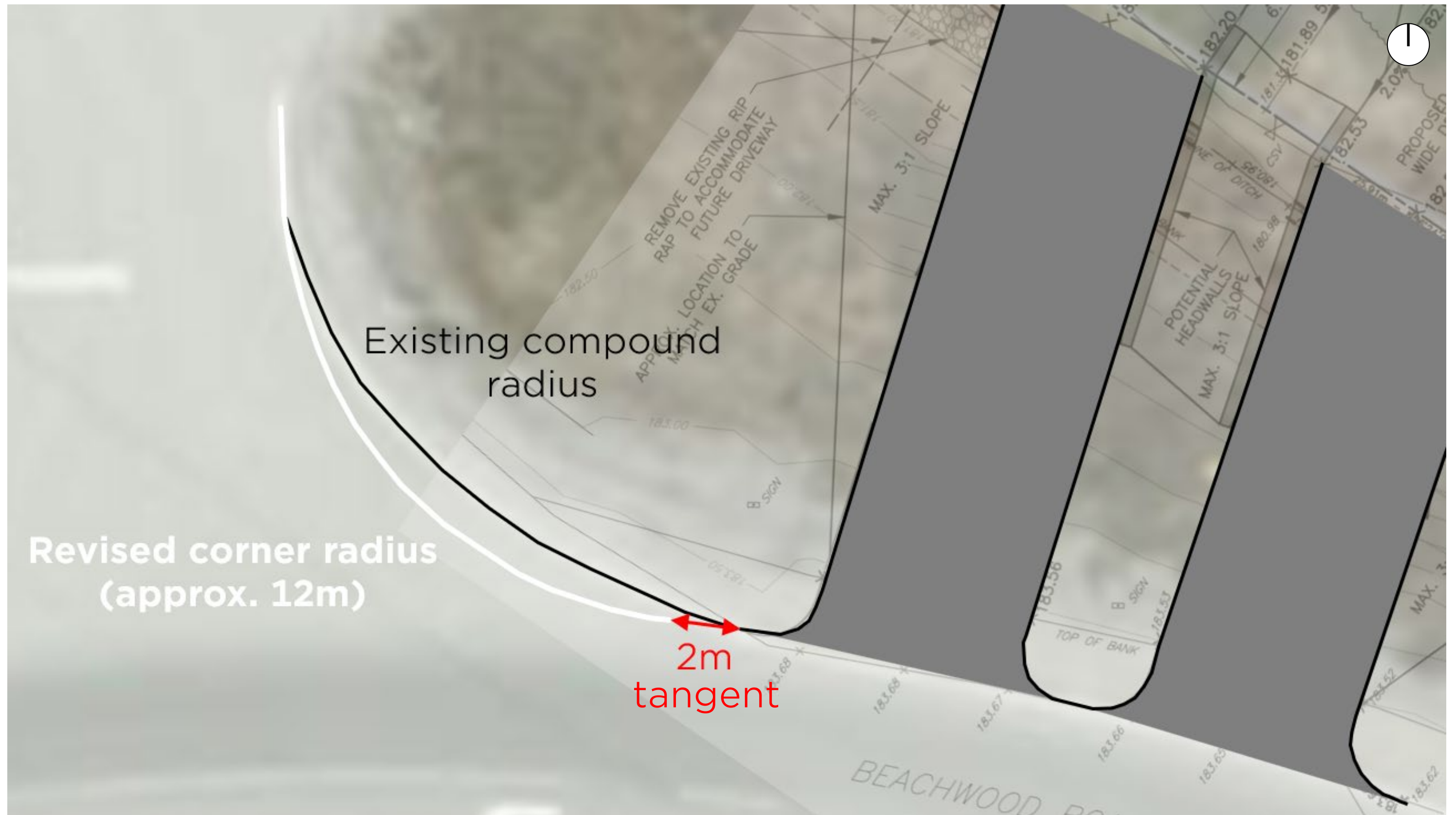




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Figure 4: Access Locations







Looking west along Beachwood Road from frontage of site



Looking east along Beachwood Road from frontage of site



Available sight lines

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Figure 7: Sight Lines

