

## Community Traffic Calming initiatives at Evergreen:

City of Calgary has recently installed Traffic Calming Curbs (TC Curbs) at six locations in the Evergreen Community as temporary traffic calming measures, mostly along Everridge Dr SW between Fish Creek Bv and Everstone Dr SW. Here are some of the facts and rationale that led to these installations as well as some findings following the installation of these TC Curbs.

### What are TC curbs and how do they work?

As part of a traffic calming Pilot Project, The City has introduced temporary Traffic Calming Curbs (TC Curbs) at various locations with high speeds, long crossing distances, poor yielding compliance, complex geometry, and/or high collision rates. TC Curbs are pre-cast concrete blocks (1.0 m x 2.75 m x 150 mm) which can be arranged to simulate various traffic calming measures. The total cost of implementation of TC Curbs is approximately one tenth to one fifth of traditional permanent construction.



These temporary traffic calming measures enable planners and engineers to adjust the design and to work out any potential issues before the permanent solution is implemented. TC curbs were designed with both the safety of people walking and driving in mind. They are yellow to ensure that they are highly visible, and provide a barrier to protect people walking. They are designed to be the same height as typical roadside curbs, so they do not pose any significant danger if struck by a vehicle. Traffic calming curbs, in key locations, will have plastic reflective posts installed on them to increase their visibility to people driving. They are heavy enough that we expect that only City crews with specialized equipment can move them, but they can be pinned to the ground if needed.

When the roads are narrow, drivers tend to travel at lower speeds. Lower speeds reduce number and severity of collisions between vehicles or vehicles and pedestrians. The new measures also

reduce the crossing distance which has been known to reduce collision risk to pedestrians, and provide a safe, visible space to wait before crossing. By encouraging lower travel speeds, walking in the community will be safer and more comfortable.

### **How were the locations selected?**

Following the successful pilot at Erin Woods Community in 2016, there has been a very high demand for TC Curbs. A number of citizens and Community Associations throughout the City have requested TC curbs as temporary traffic calming measures to narrow down the intersection approaches and mid-block crossings. As of now, there have been over 150 locations where TC curbs have been installed throughout the City.

City of Calgary has received a number of concerns from the citizens living in the Evergreen Community regarding excessive speeding along Everridge Dr SW. To address these concerns, The City provided temporary SLOWS Trailers (electronic speed warning device) at various locations along this road. Being an educational tool, this device obviously has its own limitations as the effect of the warning would last only for a certain period of time before drivers return to their previous habits. For a more permanent change, physical interventions were needed along this road.

As such, Evergreen Community Association (CA) was proactive and requested this treatment at various locations to improve pedestrian safety at excessively wide intersection crosswalks and to address speeding concerns along Everridge Dr SW. Accordingly, six locations were identified based on the CA input and evaluation of the available road width/geometry, opportunities to reduce crossing distance and sightline improvements.

### **Design and installation:**

Once these locations were identified based on the geometry, design for the TC Curb installations was completed. Vehicle turning templates and road width were carefully considered to make sure that large vehicles can make the turns and traffic flow won't be interrupted due to the narrowed corners. All lane widths meet the City of Calgary standards.

The main idea behind these installations is to make sure that the roadway, designed to be one lane each direction, operates as intended and slows down the traffic in the Community while maintaining the flow of traffic in a reasonable manner.

### **Expected benefits of the TC Curbs:**

- Reduces the crossing distance for pedestrians,
- Provides better visibility of pedestrians waiting to cross,
- Improve sight lines for drivers at the intersections which would otherwise be limited by parked vehicles close to the intersection,
- Reduces vehicle speeds by narrowing the cross section of the road and maintaining one lane of traffic.
- Reduces the risk of pedestrian collision by eliminating the double threat situation where a vehicle is unable to see the pedestrian and passes a yielding vehicle.

### **Observations / reported concerns:**

Following the installation of TC curbs, the traffic flow has been monitored in the AM and PM peak hours to identify any issues that may have arisen. Most of the locations are performing well as there are no concerns except at Everridge Dr & Everstone Dr intersection.

One of the main concerns at this intersection relates to the eastbound right turn at busy times due to narrowed cross section. As reported by some drivers, vehicles are not able to turn right when a left turning vehicle is waiting at the eastbound approach. Some drivers have reported sight line concerns for eastbound left turning vehicles as they need to pull further into the intersection to see the oncoming traffic.

Field observations in AM and PM peak hours revealed that there is some level of queue built up on the eastbound approach as the vehicles have to use Everridge Dr as one lane road which seems to have been used as two lane prior to installation. This installation is actually helping to make the intersection safer for both vehicles and pedestrians by improving intersection sight lines and reducing the number of conflicts/maneuvers occurring simultaneously. Everridge Dr is a road with one lane each direction and on street parking on both sides, and is not intended to be used as a two lane road. Understandably, a few right turning vehicles who may have used this road as a two lane roadway prior to installation have to wait a few seconds longer to make the eastbound right turn in busy times, but this is a tradeoff between safety and convenience.

The turning templates were checked during design and field observations were made following the installation. No major turning issues due to tight geometry were identified. It is understood that it may take some time before drivers are used to this new geometry.

### **Next steps:**

- City of Calgary will continue monitoring the intersection for any potential issues that may arise.
- The last traffic counts were taken in 2014. With the addition of new School in the area, traffic pattern may have changed. A new traffic count has been requested. If the weather conditions permit, the City will try to get the counts completed within the month of November. This will allow us to update previous or run new warrants for marked and signed pedestrian crosswalks, as well as potential all way stop control.
- A request to check the lighting level at this intersection will be made to Streetlight group.
- Roadway width is maintained wider than the minimum requirement keeping in mind that in winter times, the road could be slightly narrowed by snow piles and debris. The winter maintenance crews are well aware of these installations and will exercise caution during snow clearance.

### **Closure:**

City of Calgary installed TC Curbs along Everridge Dr SW based on the CA input, and as proactive measure to address speeding concerns and improve pedestrian safety in the Community. With the opening of new school in the area, it is increasingly important to enhance pedestrian safety measures at the intersections as many kids from the nearby residences walk to school.

It is understood that there are some concerns about delay at the intersection of Everridge Dr & Everstone Dr SW following the installations. However, it is a trade-off between safety and convenience. These are temporary measures which will be monitored and if the congestion level becomes unacceptable, there is always potential to adjust, as required. The Community Association is encouraged to discuss these issues and trade-offs, and advise on the preferred course of action.