

# HELP MAKE NAPERVILLE A SENIOR FRIENDLY CITY

## HELP US MAKE NAPERVILLE SAFER

Please take a moment to read the next few pages. You'll see we're on a mission to improve the safety of parking lots in Naperville, especially for seniors and people with disabilities. Concrete wheel stops are a safety hazard. Many people have tripped over them and been seriously injured. They also damage cars. We're asking commercial property owners to voluntarily replace concrete wheel stops with bollards. Bollards accomplish the same purpose, they're not a safety hazard, and they don't damage cars.



**PARKING LOT WITH  
WHEEL STOPS**



**PARKING LOT WITH BOLLARDS**



After my fall over a car-stop bumper in a hotel parking lot, I've learned many other people have also tripped over them. I had a ride in the ambulance and 27 stitches. Naperville Fire Chief, Mark Puknaitis, told me the City responds to many fall victims which requires ambulance transport to the hospital. His focus is Community Risk Reduction. We have 8 ambulances and need to reduce the number of rides for fall victims.

The mission of the Senior Task Force is to make Naperville a Senior Friendly Town. The Disabilities Commission is also working with us to prevent these wheel-stops from being a hazard for the handicapped.

There are easier ways to prevent cars from forward movement in parking stalls by using vertical posts that can be seen by the driver. They are easy to shovel snow at the base, easy to be seen at eye level, can't be tripped over, and less expensive to install. Plus, it is easier to navigate a wheelchair around a post. It is truly unbelievable that tire stop bumpers are at handicapped parking spots.

Following is some homework that we have done on this problem.

**BEV PATTERSON FRIER**

Founder-Advisor Senior Task Force  
630.452.4670  
soarerbev@gmail.com

**JIM HILL**

City of Naperville  
Co-Chair Senior Task Force  
630.640.0804  
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# WHY ARE WHEEL STOPS A PROBLEM?

Concrete wheel stops can be found in most parking lots in Naperville. Most of the time, we don't even notice them. That is, until one of them "jumps up and bites you".

That's exactly what happened to long time Naperville resident and Senior Task Force co-founder Bev Patterson Frier. In March of 2019, Bev was attending a meeting at a local hotel, and on her way into the building she tripped over one and, as she puts it "did a face plant" on the sidewalk. Bev suffered significant injuries to her head and face, and was taken by ambulance to the emergency room where she received 27 stitches. She asked that I share these photos of her taken a few days after she fell.



Thankfully, Bev's injuries were superficial, and she has suffered no long-term effects. Today, she has no visible scars and is as active as ever. She is, however, determined to raise awareness among building owners, city staff and elected officials about the danger these devices pose. She'd like to see them banned, but she'll settle for voluntary compliance with some best practices I've noted later on in this paper.

# WHY ARE WHEEL STOPS USED?

**WHEEL STOPS** are physical barriers installed at parking spaces to deter potentially problematic vehicle movement. These devices do not function as a protective safeguard against moving vehicles. Serious injuries and/or extensive property damage are the common consequences of cars accidentally being driven over standard wheel stops, usually as a result of the driver mistakenly stepping on the gas pedal instead of the brake.

The main purpose of a wheel stop is to serve as a physical signal to the driver that no additional forward movement is advised. For example, when a slow-moving vehicle comes into contact with the concrete wheel stops seen in the photo below, the driver knows that any further forward movement could lead to a physically damaging interaction with the concrete wall.

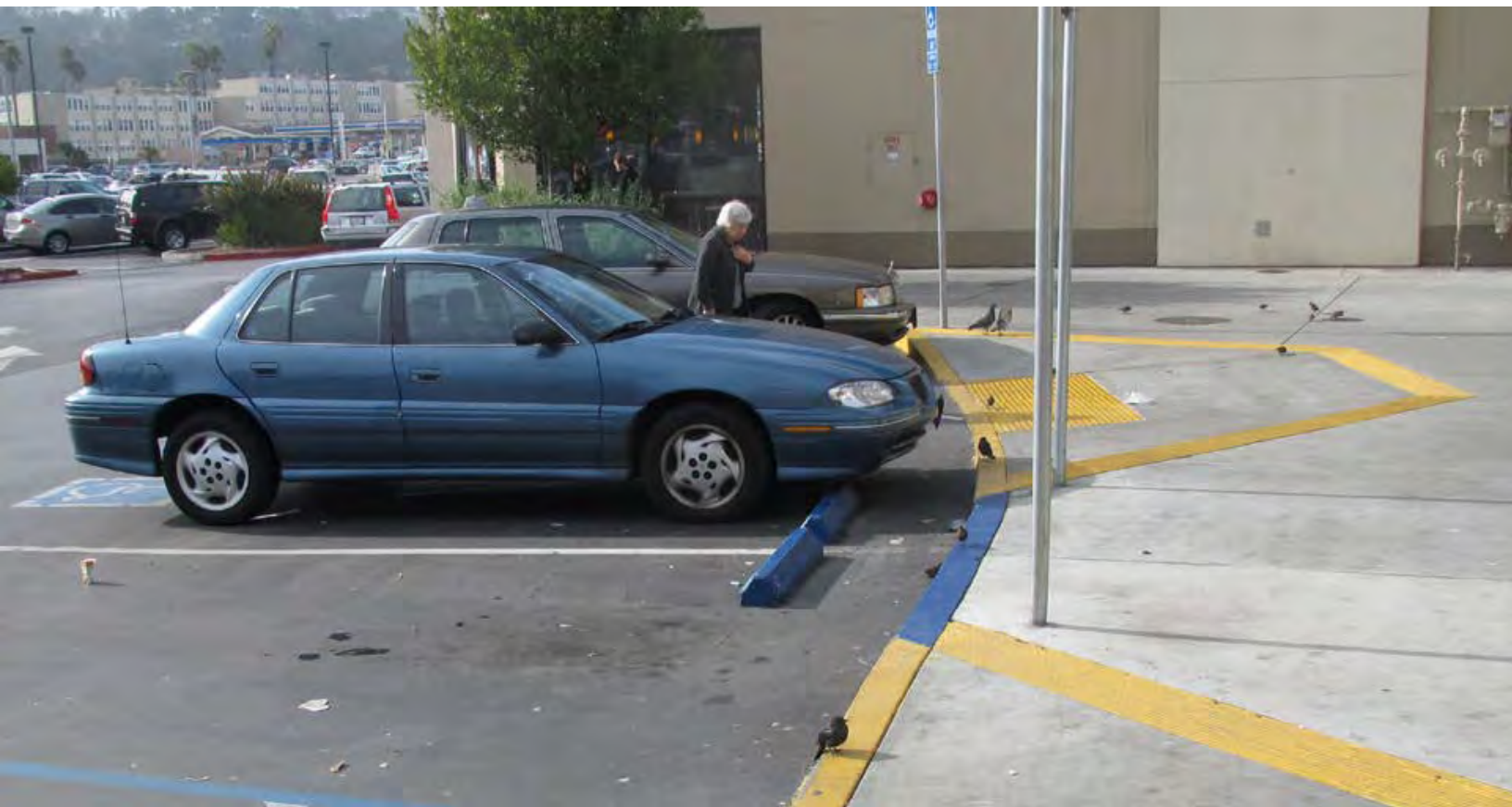




Wheel stops are also used to keep cars from intruding into other parking spaces, and to prevent cars from driving off of the edge of parking lots, as shown in the two photos below.



Another common use of wheel stops, as shown below, is to prevent vehicles from encroaching into a marked accessible pathway to a building entrance, while at the same time protecting vehicles from damaging interaction with the required steel posts that identify handicapped parking spaces.



The City of Naperville building code, like most municipalities, allows the use of wheel stops and provides very little guidance as to their placement. The only guideline noted in the city's "Design Manual for Public Improvements" is that concrete wheel stops should not be used in accessible parking stall loading areas, which would obstruct the accessible route from accessible parking to an accessible entrance.

**BELOW IS A PHOTO OF THE PARKING LOT WHERE BEV'S ACCIDENT OCCURRED.**

You can see that the wheel stops comply with the city's building code, yet they still pose a significant danger.





# USE & MISUSE IN NAPERVILLE

While I was taking that photo, I happened to notice that the hotel across the street did not have any wheel stops in its handicapped parking spaces, as shown in the photo to the left. Apparently the designer of this lot felt the signs provided enough of a visual cue to prevent drivers from pulling too far forward in the parking space. This seems a lot safer!



As I've gone about town lately, doing my daily errands, I've started to pay more attention to uses and misuse of wheel stops at parking spaces. Below is a photo of one that, while it may comply with the city code, is clearly dangerous.



This is two side-by-side handicapped parking spots. A driver parked in the right hand spot would likely have to step over the wheel stop on the left, and a passenger exiting a car parked in the left hand spot would likely have to step over the wheel stop on the right. While technically speaking there is an unobstructed pathway between the wheel stops, it's not very wide. As soon as I can figure out who owns this lot, I'll have a conversation with them.

# PROPER GUIDELINES

In doing my research, I found two internationally recognized standards bodies (ITE and ASTM) that provide guidance to architects and engineers on the use of wheel stops.

The Institute of Traffic Engineers (ITE) says that wheel stops should not be used, and instead recommends the use of bollards to limit encroachment into the accessible route. Below are “before” and “after” photos of the entryway to a grocery store. In the “before” photo, you can see the wheel stops cannot prevent vehicular intrusion into the often-crowded entryway to the store.

When the store was remodeled, the entryway was designed with structural bollards to prevent vehicle intrusion.



I did some more research, and I found that the ASTM International (formerly the American Society for Testing and Materials) provides even more detailed guidance, specifically:

- Parking lots should be designed to avoid the use of wheel stops.
- Wheel stops shall not be placed in pedestrian walkways or foreseeable pedestrian paths.
- Wheel stops shall be in contrast with their surroundings.
- Wheel stops shall be no longer than 6 feet and shall be placed in the center of parking stalls. The minimum width of pedestrian passage between wheel stops shall be 3 feet.
- The top of wheel stops shall not exceed 6.5 inches in height above the parking lot surface.
- Adequate illumination shall be maintained at wheel stops as governed by local codes and ordinances or, in their absence, recommendations set forth by the Illuminating Engineering Society of North America.
- Bollards, not less than 3 feet in height, may be placed in the center of parking stalls as an alternative to wheel stops. Bollards should be appropriately marked to enhance visibility.



I've found some parking lots in Naperville that do use structural bollards instead of concrete wheel stops. I took the photo below at Edward Hospital.

The bollards are placed to ensure that cars don't intrude into the access path into the hospital. Many hospital visitors use wheelchairs or walkers, so this is an especially important feature. Many of the visitors are passengers in the vehicle, and this layout ensures a clear access path for both passengers and drivers.

We also looked at the cost of bollards, and found they are relatively inexpensive, some costing less than \$100, and they are easy to install.

**ALL OF THIS RESEARCH HAS CONVINCED US  
THAT WHEEL STOPS NEED TO GO!**



# WHAT YOU CAN DO

If you're the owner of a commercial building in Naperville, here's what we ask you to do:

1. Remove all of the wheel stops from your parking lot.
2. Install bollards in areas where needed to prevent vehicles from intruding into accessible pathways to your building entrance.
3. If you can't do 1 and 2, then at least make sure wheel stops are adequately spaced, painted a contrasting color to their surroundings, and adequately illuminated.

If you need more convincing, following are some letters from some community leaders.

If you want to discuss the issue, contact:

**BEV PATTERSON FRIER**

Co-founder - City of Naperville Senior Task Force  
Phone: 630.452.4670

**JAMES D. (JIM) HILL**

Co-chair - City of Naperville Senior Task Force  
Phone: 630.640.0804  
Email: jamesdhill@wowway.com



# Naperville

August 28, 2019

Bev Frier  
Co-Founder Naperville Senior Task Force  
City of Naperville, Illinois 60540

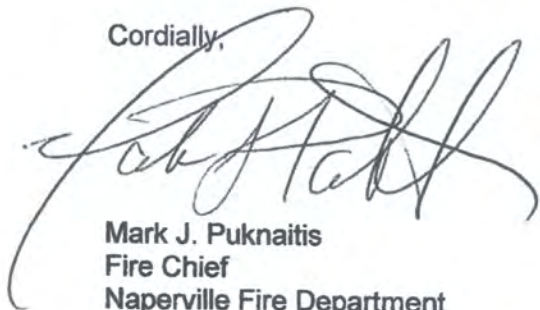
Dear Bev:

I am writing this letter in support of your activities with the Senior Task Force. As you are aware, the Naperville Fire Department has been developing and implementing programs that promote Community Risk Reduction (CRR). We are constantly working to identify areas and situations within the community that can and have been identified as risk factors to provide measures that can reduce or eliminate those identified incidents from re-occurring.

One major incident class that we have identified pertains to falls ranging from many types of origins. I am aware the you have been the victim of a fall related to tripping over a wheel stop and have made some valid suggestions as to provide ways to minimize this type of incident from re-occurring. One suggestion is to replace these types of stops with bollards of which we already see throughout the city. I encourage the message you bring to be communicated further and although it may not be practical or prudent to have all the current wheel stops removed, I would advocate the use of the bollards when possible to aid in avoiding a fall that you had from re-occurring.

Keep up the great work with the task force and I look forward to assisting with more CRR actions and initiatives in the future.

Cordially,



Mark J. Puknaitis  
Fire Chief  
Naperville Fire Department

cc: File





# Naperville

August 29, 2019

Bev Patterson Frier  
24W035 Donwood Drive  
Naperville, IL 60540  
[soarerbev@gmail.com](mailto:soarerbev@gmail.com)

Bev,

Thank you for the detailed information you provided on the parking lot wheel stops and the dangers they create for seniors and persons with disabilities. From a safety perspective, I agree there are definite advantages to exploring the implementation of structural bollards which are much higher and more visible.

As an example, the police department responded to a call for service at a local business earlier this year after a driver mistakenly pressed the gas pedal, instead of the brake pedal, while parking her vehicle. The car jumped the wheel stop and pinned the driver's relative against the building while he was on the sidewalk. Unfortunately, the relative sustained a life-changing serious injury. This accident may have been avoided if a bollard had been properly installed in lieu of the wheel stop.

I have forwarded your research material to the city's Transportation, Engineering and Development Department (TED) to ask for review and to determine if it would be feasible for the structural bollards to be installed within the city-owned parking lots.

Thank you for your great work on the Senior Task Force.

Sincerely,

Robert W. Marshall  
Chief of Police  
Naperville Police Department  
630-420-6161  
[marshallr@naperville.il.us](mailto:marshallr@naperville.il.us)



Thursday, September 5, 2019

Bev Patterson Frier  
Founder- City of Naperville Senior Task Force

Dear Bev,

I am the Chair of the Naperville Accessible Community Task Force (ACTF) and am sending this letter to lend the Task Force's full support of your efforts to improve the safety of parking lots in Naperville by removing concrete wheel stops from parking lots and replacing them with bollards. This action would reduce the possibility of serious injury not only to seniors and people with disabilities, but to all residents and visitors to Naperville. In addition, it would be consistent with the ACTF's mission *of enhancing the quality of life for persons with cognitive, physical, mental and developmental disabilities living, working or visiting the City of Naperville.*

The research you have done clearly indicates that experts in the field of parking lot design and engineering agree with the advantages of the use of bollards in lieu of wheel stops. The ACTF strongly encourages owners of commercial buildings, along with the Naperville staff and City Council, to take the appropriate steps in removing concrete wheel stops from parking lots and replacing them with bollards.

Sincerely,

**Gary D. Smith**

Gary D. Smith  
Chair, Naperville Accessible Community Task Force



September 4, 2019

To: Bev Frier

Re: Car Stop Bumper Concern

To Whom It May Concern,

Brookdale Lisle is committed to providing a safe environment for seniors. Falls are a major concern for seniors and providing hazard free parking obstacles can make a huge impact in the prevention of falls. We do not use car stop bumpers in our parking lot in order to provide a safe parking environment for our residents, associates and guests.

We strongly support replacing care stop bumpers with bollards that are easily seen and safer for everyone.

Sincerely,

A handwritten signature in cursive script that reads "Janice Hutchinson". The signature is written in black ink and is positioned above the printed name.

Janice Hutchinson  
Executive Director  
Brookdale Lisle



1700 Robin Lane  
Lisle, IL 60532  
brookdale.com



Bev Frier  
Naperville Senior Task Force  
Founder and Chair

Bev Frier,

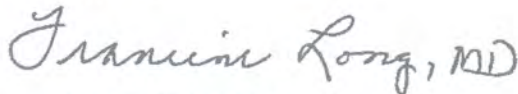
We appreciate you taking the time to write. As medical professionals who work with elderly patients we are familiar with the needs of this population and are glad to provide our feedback.

As you know, individuals with limited sight and mobility experience a greater risk of falling around tripping hazards. Concrete barriers that lay horizontally along the ground can represent just such a tripping hazard because they are easily missed. Even if they are painted, many of the patients we serve face a significant challenge moving around these barriers because they may not have the ability to avoid the hazard or the dexterity to respond to a misstep, if it were to happen.

When seniors fall, the risk of serious injury is significantly greater. It is an unfortunate reality that our bodies are more susceptible to serious injury from a fall as we age. Falls are the leading cause of death among Americans 65 years and older and the risk of a fall increases proportionately with age. Nearly 90 percent of all fractures in the elderly are due to falls.

Efforts made to reduce tripping hazards, including the removal of the previously referenced concrete barriers, can have a significant positive impact on the elderly. Please let us know if you need anything further.

Regards,



Francine Long M.D.



Constantine Wonais M.D.



# St. Patrick's Residence

Nursing and Rehabilitation  
Served by the Carmelite Sisters for the Aged and Infirm

*"The Difference is Love"<sup>SM</sup>*

Thursday, September 5, 2019

Dear Bev,

We have read through your material and would support the installation of bollards in commercially owned parking areas.

Here at St. Patrick's Residence we work with the elderly and those who stay with us for short term rehab. We are intensely aware of anything that could be a cause for tripping and there is constant vigilance to prevent these hazards from being present in our immediate environment. A fall resulting from tripping could easily result in a catastrophic injury.

To coin a phrase, "It takes a village..." we'd like to add "to keep our seniors safe." Your proposed solution appears to be cost effective and just makes a lot of sense.

On behalf of all at St. Patrick's, we wish you well in your endeavor to make Naperville safer!

Sincerely,

Marilyn Daley, Administrator

Sr. Anthony Veilleux, Assistant Administrator



Brookdale Home Health

1952 McDowell Rd., Suite 207

Naperville, IL 60657

September 4, 2019

To Whom It May Concern:

As a home health company that services clients that are homebound and have difficulty getting out, it is extremely important that we try to make the environment for our patients more accessible and safer. We specialize in caring for seniors and as a part of aging it can lead to decreased reflexes, decreased balance, visual deficits, and weakness, all which can increase their risk for falls.

By placing wheel stops anywhere, especially in areas marked for handicapped parking, we are just placing a person at risk for falls. These falls can be devastating and cause injuries, often significant enough to be life-threatening. These wheel stops also impede the ability to maneuver wheelchairs and walkers to get to the handicapped ramp or onto the sidewalk.

As a community that can make a difference in their resident's lives, replacing old wheel stops with bollards and then mandating the use of bollards for future endeavors, will set an example for other communities that Naperville is forward thinking and concerned for the safety of their residents. Please consider making the necessary changes in order to increase the safety and accessibility for our residents.

Sincerely,

Debbie Reynolds PT

Home Health Director

Brookdale Home Health



Little Friends, Inc.  
140 N. Wright St.  
Naperville, IL. 60540

Dear Bev,

I've had a chance to review all of the information that was shared related to your efforts to improve the safety of parking lots in Naperville for seniors and people with disabilities.

In looking at the wheel stops and specifically the potential tripping hazard they represent, I appreciate your efforts to raise awareness and request compliance with best practices when possible.

I do think the alternatives that you have offered make sense and can improve the environment for seniors and people with disabilities. Please use this note as a reflection of my support for your initiative.

Thanks, and good luck with your work in this area!

Sincerely,

Mike

**Mikel S. Briggs**  
President & CEO  
Little Friends, Inc.  
140 N. Wright St.  
Naperville, IL 60540  
Office: (630) 355-6533 x 1828

EXERPTS FROM PEOPLE WHO HAVE HAD  
ACCIDENTS FROM THE TIRE BUMPERS.

1. I tripped over a tire bumper but the unusual thing is that the bumpers were removable. They were not fastened down. One had moved into my walking path. Both my knee and my jaw were hurt. I was very shaken up. A trip to the doctor was required with X-rays. I was sore for weeks.

2. We picked up our new 2019 Cadillac. The next week we parked in the handicapped area in front of a restaurant. The tire bumpers were higher than usual and when we backed away, the tire bumper tore off our skid plate. The result was a \$500 bill. We did not pay the extra fee to replace the entire skid plate. If there had been bollards, rather than the tire bumpers, this would not have happened.

**BEV PATTERSON FRIER**

Co-founder - City of Naperville Senior Task Force

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