



Crash Analysis Studio – Session 13 Transcript

Introductory Trailer

Chuck Marohn: I want to give you two scenarios. Scenario number one a plane crashes. Scenario number two, two cars collide. In scenario number one, we pull out all the stops – we bring in the NTSB, we try to figure out exactly what went wrong. Scenario number two – we send out the cops, we sweep up the mess, and we go on our way.

John Pattison: If we, collectively – everyone on this call and the broader Strong Towns movement – if we do this right, we’re going to save thousands of lives.

Edward Erfurt: Mayors and local council members want to do the right thing. They have the ability to solve it. We’re going to help provide those tools for them.

Session

Tony Harris: Okay. Hello everyone. I think we have some attendees filing in still. I think this is gonna be a well attended webinar today, but I'm gonna go ahead and get us started. Welcome to the Strong Towns Crash Analysis Studio. We're glad that you're here today. My name is Tony Harris, and I'm the action team coordinator with strong towns. And in a moment I'll introduce you to the rest of our expert panel. But first, let's talk about why we're here.

In 2022, over 40,000 people died in automobile crashes in the United States alone. 2023 data estimates that over 19,500 people died in automobile crashes just between January and June. Hundreds of thousands more have suffered traumatic injuries during these collisions. And despite the best efforts of public safety officials, these crashes are still happening and affecting all of our lives.

There's a prevalent misconception that car crashes are caused solely by mistakes that drivers make. Looking at your phone, changing the radio, drinking alcohol, speeding. When a crash



occurs, the North American response is to send out law enforcement and insurance agencies to assign blame. We ask questions like, who made the mistake that caused this crash? Who should we blame? The reality is that crashes are caused by multiple factors, not just driver error. When a traumatic crash occurs, we need to identify all the contributing factors and learn all we can from the experience so that we can ultimately reduce the number of deaths and traumatic injuries in our communities.

So what you're going to see today is a Crash Analysis Studio session, drawing from the best practices of the medical profession. We've convened a panel to review a crash that happened in Carlsbad, California.

During this crash, a motorist hit a beloved community member named Christine while she and her infant daughter were traveling on an e-bike. Though her daughter survived, Christine unfortunately did not.

So today I'll start by introducing you to our panel, then review the facts of the crash, and with our guests, we will assess the design factors that contributed to this collision.

I wanna emphasize here our goal is not to assign blame. Rather, our objective is to learn as much as possible about what happened, and identify the many factors that contributed to this unfortunate event.

So before we get into the details and speak with our experts, we need to begin with the fact that this tragedy resulted in the death of Christine Hawk. Embry. Please take a moment of silence with me to honor and acknowledge her and the loss of her life.

Thank you. So I'm now going to introduce our expert panel for today. So first we have Anthony Catania, a professionally trained architect, urban designer, and the founder of a MC architecture and design, LLC. Anthony established his own practice to focus on the design of traditional urban building types and walkable urban environments. Prior to establishing a MC,



Anthony worked in urban design and architecture in Washington DC for seven years. He relocated his practice to the Oklahoma City area in early 2023 to better serve his clients and contribute to growth in that metropolitan area. Anthony earned a master of architecture from the University of Notre Dame and a Bachelor of Humanities and Arts from Carnegie Mellon University.

So next we have Thomas LaCroix, who is a native of North County in the San Diego area. Thomas currently works as a web developer for Schwab as an engaged reader of strong towns. Thomas decided to nominate this crash for our review because he couldn't stop seeing problems associated with transportation and street design in his community. Thomas also started a local conversation in Oceanside, the city that neighbors Carlsbad to its North. So welcome Thomas.

And next we have Pete Penseyres, who has lived in Carlsbad since 2016. Pete is a concerned community member, a Carlsbad Traffic Safety and Mobility Commissioner, and a certified bicyclist instructor. Prior to moving to Carlsbad, Pete lived in Oceanside where he served as co-chair of the local bicycle and pedestrian committee. He travels primarily by bicycle or on foot. And Pete decided to participate after hearing about the Crash Analysis studio initiative from Thomas when they met at an Oceanside bicycle and pedestrian committee meeting.

And then finally, we have Edward Erfurt, who is the director of Community Action at Strong Towns. Edward is a trained architect and urban designer with over 20 years of public sector and private sector experience. Edward has a skilled eye when it comes to evaluating the safety issues posed by roads, streets, and intersections, like the ones that we're gonna be looking at today.

So now I'm going to walk us through the details of this crash in Carlsbad.



I'm just gonna share my screen.

So let's start with what we know. We know that Christine Hawk Embree was traveling with her 16 month old daughter Delilah on their e-bike near the intersection of Basswood Avenue and Valley Street.

42-year-old motorist Lindsey Turmelle struck Christine and Delilah at the intersection. Now, our local experts believe Turmelle ran through the stop sign and Turmelle's defense attorney indicated that she looked down for a moment while she was driving, and that this caused the accident that took Christine's life.

We know that the crash happened around 5:45 PM on August 7th, 2022, and Thomas, our local contact on the ground was denied access to a copy of the crash report. Since Thomas is not listed as a party to the collision, we know that Christine was transported to a local hospital and died the next day on Monday, August 8th, 2022.

Delilah, her daughter was wearing a helmet and managed to survive the crash unharmed. The motorist Turmelle remained on the scene after the collision, and to my knowledge, was cooperative with the Carlsbad Police who did report to the scene. And law enforcement determined that neither alcohol nor drug usage were factors in this collision.

So here you can see a map with the crash location pointed out by that red pin toward the center. And then next, we've zoomed in on a visual of the intersection so that you can see both Basswood and Valley.

Now I've illustrated Christine and her daughter using blue, and you can see their path of travel there down Valley Street. And then we've illustrated Turmelle with Orange and her path eastward on Basswood Avenue. And then we've outlined what we believe is the crash location



in red here. Now this is based on what we've seen in photos and multiple media sources and our contacts knowledge of the collision on the ground.

So we know that the posted speed limits on both Valley and Basswood are 25 miles per hour. And then recently we found out that Turmelle pled guilty to misdemeanor vehicular manslaughter and was sentenced to 90 days in county jail and 90 days of home detention. Now she's also required to speak at 10 traffic school events and complete 50 hours of volunteer work.

So before we delve a bit deeper into the site conditions at this intersection and look at some other resources, I wanted to highlight some of the responses that the city has taken to address traffic safety since this collision occurred. So Tom Frank, the city transportation director, has helped us learn more about some of these responses.

So we know that the city rolled out its Safer Streets Plan and Safer Streets Together initiative after declaring a local state of emergency on August 23rd, 2022. Now, this plan references dozens of projects, and one thing I really appreciate about it is it charts out actions on a timeline from three months to one plus years. And there are some other gradations in between, I believe six months and up to 12 months. And then we know that the city installed five speed humps and raised crosswalks along the parallel roadway Tamarack Avenue.

There's also been some engagement with engineers on actions like bike lane enhancements, digital roadway messaging, and upgrading some signal locations where there's known high pedestrian traffic. And then it also seems like the city has been involved in some educational campaigns and community engagement efforts, which we are glad to hear.

So with that in mind, let's look at the collision location a little bit closer. Both Basswood Avenue and Valley consist of two through travel lanes with accommodation for unmarked

STRONG TOWNS

parallel parking on either side. So though the intersection is marked with the school crossing sign, there are no sharrows painted along Basswood or Valley. And sharrows would be the arrows that are painted on a roadway to indicate shared motorist and cyclist usage. Right? We know that the intersection is unsigned, though the crossing areas are marked with yellow paint. Our nominator and local expert Thomas did pull together some photos and footage of the crash location that I wanna share with you all briefly just to give a better feel for the place that we're looking at. Right? So this first shot here shows the collision location from a corner on the south side of the intersection. And we're looking northeast onto Basswood in this photo. Now here we are at the crash location again, but this time we're kind of standing in the middle of the intersection, right?

And then in this shot we are standing a little bit further southwest on Basswood, and you can see kind of a take of the whole intersection, all four sides.

Next, this shot was taken standing northeast of the intersection looking down onto Basswood, and then this photo was taken standing on Valley Street looking south onto Valley Street across the intersection.

And then again, I believe this photo was taken standing on Valley Street looking at where Valley and Basswood meet. So the Carlsbad High School would be to the right hand side out of frame here.

And then this photo is just southwest of the intersection looking further southwest onto Basswood. We wanted to include this just to illustrate that this is definitely kind of a residential area, right?

And then this last still shot that I've included here is Southwest of the intersection looking onto Basswood. And I wanted to include this just to point out the blue signs you can see on the left here that say, safer together, slow down Carlsbad. And then there's also this yellow sign on the

STRONG TOWNS

right hand side that says, please slow down just below the stop sign. There I, and then we also elected to include a short video clip with you all that I wanna share just to illustrate how quickly some people are running through stop signs at this intersection. Right? So I believe Thomas was standing on Basswood when he shot this video.

And this is just a short clip of it, but for perspective, the original video was close to a minute and a half in length, and I counted 11 cars moving through the intersection without fully stopping.

Lemme try to get this playing. There we go. So we see one car moving through. And then this last one I think might've been the fastest of the cars that move through without stopping.

Okay, so Thomas also managed to gather some measurements of the intersection as well. So we are focusing on basswood again just north of where the crash seemed to occur. In that intersection, we see that there's one sidewalk on the right-hand side that's six feet wide, and that's right on the high school side of the road. And then there are two travel lanes, again, with that unmarked parking available, like I believe I said earlier. And each of those lanes are 20 feet wide. So that makes for a total width of 46 feet. And then I wanted to note, there's a large yard on the left-hand side of the road. And then on the right-hand side there's a pretty sizable grassy area between the sidewalk and the high school.

And when we look at this place, right, we're seeing sort of this suburban residential development pattern. There is proximity to Carlsbad Village Drive and Interstate five, and then there are multiple schools nearby. I counted at least five. So I'm gonna pull up this map to show the surrounding area. So of course, on the right-hand side is Carlsbad High School, which I've mentioned multiple times now. And then a little bit further below, you can see Valley Middle School and Magnolia Elementary School, there's my cursor. And then in the opposite direction, we have Carlsbad Christian Academy and Buena Vista Elementary School up here.

STRONG TOWNS

So since it's pretty clear to us that speed is part of the equation here, Thomas managed to conduct a speed study at the crash location as well. And traffic flow conditions seemed pretty typical on the day that he was gathering speed data. So of the 242 cars tracked, 93% of drivers were speeding beyond that 25 mile an hour limit. We noted that 38% of drivers were traveling at 35 miles per hour or more, right? So they were going 10 or more miles an hour over the speed limit. And then we calculated that 85% of drivers were traveling at or below 37 miles per hour.

Now, there's some additional data here that we think validates our findings about speed too, right? This is data that we source from the city that lists speed as a major contributing factor in crashes that were cataloged between 2019 and 2022.

So I'm going to stop sharing my screen now, and I would like to turn to our panel so that we can talk through some of the factors that are at work here. So Anthony, if I could ask you to start us off just by telling us what you think might have contributed to this crash. And if you have Google Street view up and available, please feel free to screen share and point out anything relevant or of interest.

Anthony Catania: Absolutely. Thanks Tony. So, so here we can see the map we were just looking at of the intersection of Valley and Basswood. And I'm gonna drop myself down basically the direction from which the, the driver would've been traveling. So this is Basswood here, looking up towards the intersection where the collision occurred. And, and the first thing, first thing you kind of notice when, when you look at this image is just how wide the street is and how wide it's perceived by the driver. And there's, so there's a couple of things happening here. We saw the, we saw the street section that we were looking at earlier that really indicated that we effectively have two 20-foot travel lanes here. There is the ability to parallel park, but as you can see, because most people have driveways and there are a lot of curb cuts into the street, there aren't a lot of opportunities and there's not a lot of usage of the parallel parking, though it's allowed.



So you have this effective 20 foot wide zone to your availability as a driver. And I think at this point we kind of understand, many of us understand the concept of induced speed. And on a street like this where you have a lot of space as a driver, you actually feel safer driving at higher speeds. And so psychologically it induces you to drive faster on a street that is this wide. And just for reference, if we imagine this 20-foot lane that you have available to you as a driver here, compare that to 12 foot lanes, which are standard on interstate highways. So to have a, to have a residential street with a lane width that is drastically wider than what you would, what you would experience on an interstate highway traveling at 60 or 70 miles an hour, is, is kind of it, it really get, gets into the realm of being irresponsible street design.

And so I think we're gonna get to the point where we talk about what, what can be done here. So the width, we know that's a contributing factor and the width that's causing drivers to travel at a high rate of speed, I think it was 37 miles an hour, you said was the, the median kind of clock speed of vehicles on this street. But the, the, it's posted as 25 miles an hour. Some of you have probably seen these graphs that basically show the chances of being killed if struck by a vehicle going at various speeds.

So you can see here, for the average age person at 20 miles an hour, you have only a 7% chance of being killed if struck by a vehicle. But then let's go from 20 miles an hour to 30 miles an hour, and look what happens to that 7%. That goes up to 20% at 30 miles an hour. So you have almost to three times of a chance of being killed if struck by a vehicle going 30 miles an hour as opposed to 20 miles an hour. However, let's look to 40 miles an hour because that's actually closer to the speed that the average vehicle is traveling on this street. That 20% goes up to 45%. So you have almost a 50 50 chance of being killed if struck by a vehicle going at this speed.

STRONG TOWNS

And it also speaks to the fact that a posted speed limit usually is, is not any deterrent to the speed that people actually drive. They drive the speed that they're comfortable driving based on the design of the street.

So, so speed and, and street width to contributing factors. The other is the, the crosswalks here are really not very clearly marked.

They're also noticed that they're marked in the same color as the, as the lines dividing the lane lines. And typically you really want the, the crosswalk to be painted, painted white is, is is really the standard and painted in such a way that that creates a higher level of visibility here.

So, so I'm just gonna go quickly here to, this is a street that I used to live on in Washington, DC a much narrower street, which we're gonna get to that. And notice the type of crosswalk that's, that's become standard in Washington DC It's this ladder type crosswalk always painted in white. And you have a much higher visibility of the crosswalk when you're approaching in a vehicle.

The other thing that you have here on this street that you don't have at the Valley and Basswood intersection is a very clear stop line for vehicles that is usually at least 10 feet behind the crosswalk. So you have this very, very, very visible delineation of where you're actually supposed to stop that gives you enough distance beyond the crosswalk. You don't have that here.

So another contributing factor is the lack of visibility of the, of the crosswalk. The, the fourth I think is related to the, the stop sign and the stop sign in combination with the street width. You can kind of see as you're approaching this intersection, I'm gonna back us up here.

The stop sign is really not highly visible. It's way off to the side. The width of the street kind of does that. And so you can see that they've painted stop on the pavement in recognition that they already know people can't see this stop sign. So they've decided, they've decided to paint



it here on the pavement. All at all four approaches to this intersection. But clearly based on the videos and the data that we have, this this isn't, isn't making drivers stop.

And, and I think the, the other contributing factor that relates to the width of the street here, when you add stop signs at an intersection where the street is incredibly wide, people already have this psychological idea that they're traveling slower than they actually are on a really wide street. And when you get to a, a, a, an intersection with a stop sign on a street of this, this width, people also have the psychological idea that they have come to a stop when they may not have. And as streets get narrower, this, this phenomenon becomes less prevalent. But on really wide streets, it's very common to blow through a stop sign and not even realize that you've done it.

And that's if you have your eyes on the street and you have your eyes aware of your surroundings, which was not the case with, with this accident, the driver was distracted doing something in their vehicle. So if you have a condition where even alert drivers are not coming to complete stops, you have, you have an issue with the, with the design of the street and the, and the design of the intersection.

Tony Harris: Excellent. Thank you Anthony. I appreciate that.

Anthony Catania: Yes.

Tony Harris: And if we could move maybe to Pete next, I know Pete and I talked a little bit about the four-way stop at this intersection and, and driver behavior related to that. Pete, would you like to weigh in on, on factors that you're seeing at work here?

Try to unmute you. There we go.

Pete Penseyres: I think I'd like to defer to Thomas next.



Tony Harris: Sure.

Pete Penseyres: And, and then we'll go from there.

Tony Harris: Yeah, we can come back. No problem.

Thomas LaCroix: Sure. I'd be happy to. I think in driving the street around there and just being a pedestrian in that area, the main thing that I noticed is vehicle speed. As Anthony said, vehicle speed is the main contributing factor in why when people are hit, they as a pedestrian, they die. The, the contributing factors to vehicle speed, to me it's a little more of a layman's understanding. I would say though a lot of the same things, lane width, I think the lanes are too wide. They, they literally are, like Anthony said, wider than freeway lanes. When you take the parking when nobody is parked, nobody's parked on the side of the road in a lot of that. And you, the visual cue for drivers is to think I have a clear shot.

I'm only going maybe 15 miles an hour, when in reality they're going 35 or over and often times blow through that stop. Then I think another factor is the downhill slope. I was very surprised to hear that it wasn't the, the crash didn't happen on the downhill slope on I think valley that I, I've noticed that a lot more people blow the downhill slope going like from in front of Carlsbad High. They just, they blow right through. That's where the, the white Tacoma that you showed Tony blew through very quickly, didn't even stop.

And then the other, the other aspect would be the parking. And that kind of contributes to, that contributes to the lane width issue. And also I would like to point out that the, the California state law is now requiring cities to daylight their intersections, I think at least 20 feet back, meaning the, to remove parking from intersections, which, you know, yeah. So I think parking lane widths and the downhill slope, in my opinion, are what contribute to vehicle speeds, which is the, the main factor in the danger at that intersection.



Tony Harris: Great. Really well said. Thank you. Pete, could we go to you next or would you like Edward to go next?

Pete Penseyres: Okay. One of the things that the city did that we, we haven't spoken of yet, is one of the actions they've taken is to implement a Vision Zero program. And I also sit on the, the city's Traffic Safety and Mobility Commission.

And we were asked to advise the city council on what actions out of these, it's a list of like 35 to 50 things that we, and one of the things that our commission did not recommend to the City Council was Vision Zero. And the reason they didn't do that was they looked up online to see what that was. And it was focused primarily on speed.

And so I tried to push it along to the city council by making a recommendation that we do, you know, recommend that they made a motion. And I didn't get a second.

So the City Council though, did, did support that. And so the city is allegedly working on that. And one of the things that, that I have come away with, with respect to Vision Zero is that you really need to do a root cause analysis of the fatal and serious crashes to determine what was the real reason that this happened. So you, you, you can say, okay, in this case you can say the driver looked down for a moment. I mean, that, that was what you said there, there were no witnesses other than the driver.

You can't ask the victim and you can't ask the victim's daughter that she was far too young. So what you have to rely on is stated that you could, that can be collected from the automobile. And the police investigators, by the way, would do a, an awesome job of this. They absolutely have to be a part of any root cause analysis. 'cause they have far more data than we can collect publicly. Even if we could have a, a copy of the, the police report, there's so much that goes into a fatal collision.

STRONG TOWNS

I've seen some of those in a previous job I had, as in Oceanside, I was on the Transportation Commission. We were given permission to look at police reports in, in the city hall area. And so I've seen them. They're, they're huge, they're thick. You know, a normal crash report is just a couple of pages and the fatalities are much more thorough.

But the, the police, when they do an investigation, their job, all they're tasked to do is to determine who's at fault. So they determine what's called a primary collision factor.

And a primary collision factor is not necessarily, and usually is not the root cause I worked in the nuclear industry, so I'm aware of it. Root cause analysis is incredibly thorough and involves a lot more than just determining what the primary cause of the crash is. Right? But what the police do is they determine the primary cause factor and who's at fault if both of 'em are at fault, who's most at fault. And then after that, then the courts and the lawyers get involved as you know, who, who gets paid and how much to make this right. That's the only thing that can be done at this point. But with a root cause analysis to implement a Vision Zero program, you would go beyond that.

So in this case, you would just keep asking why.

Okay, so, you know, the the, the primary cause factor was that the driver ran the stop sign. Okay. Why did the driver run the stop sign? The stop sign? Well, she looked down. Why did she look down as she's approaching the stop sign?

Well, okay, how do we determine that? Well, clearly some of the things we've said here today, the road is wide. There's sight, distance is an issue we haven't spoken to yet. But where the cyclist was riding, there's, there's virtually no sight distance for either the driver or the motorist in this case to see each other until they're at the intersection. So if one of 'em doesn't stop, then the other one is gonna be in serious trouble, takes bad timing. There's intersections

STRONG TOWNS

like this all over the city. But, okay, so then you get to the point of, all right, why did the driver feel like they could look away from that intersection? Why were they going that fast?

And what you might come up with is they were distracted. Okay, why were they distracted?

And you keep going until you get to the real root cause the the, and once you get there, and, and I don't think we can, with the information we have, the police would be able to help. But then it requires somebody with the actual experience in root cause analysis. Maybe somebody outta the nuclear industry where I came from, somebody from the aerospace industry. Those two industries de demand. Every time something fails, you find out the root cause and then only can you really determine effective corrective actions to prevent recurrence.

Tony Harris: Yeah. So thank you for pointing that out. I, the aspect of, of asking why as many times as necessary to get you to a true root cause I think is, is really important. And then also highlighting sight distance. I hadn't thought about that actually in quite some time. So, much appreciated. Edward, can we move to you?

Edward Erfurt: Yeah, let, let me summarize some of the things that I, I've heard and, and let me add on to some of that. When Anthony talked about the street, having the really wide right of ways that as a, as a driver, we see that where if the road is wide, we have a comfort level where we can go a little bit faster. Clearly on this street, that comfort level is there overlay the fact that this is a residential street. So these are folks that are familiar with the neighborhood.

There's a mantra in my community that, that apparently is quite evident and, and prolific in, in here. The stop signs are not for locals people, people kind of joke about that. But in a neighborhood that we're familiar with, we, we will do things if we're provided this extra margin of error by having wider lane widths, having bigger intersections, even this intersection itself, when we look at it, there's no enclosure to it. So with the topography and the overhead items,

STRONG TOWNS

you could see where someone's eyes would be distracted away from where they actually need to be.

So we see those pieces and as Thomas has talked, we, we, through this studio, did some analysis through a speed study that showed that clearly these streets are going too fast. I don't think an enforcement issue will solve that, that component because the contributing factors here, as we start to look at it, really wide lanes, lack of congestion with the on-street parking, there isn't a, a high amount of on street parking. So that natural friction and optical narrowing doesn't exist there. And, and even the daylighting of the intersection, it's, it's already daylighted because there aren't enough cars to park there to block those views.

And as Pete described of the sight distances here again, as we look at this intersection, because it is so wide, our field of vision is, is really quite crazy on it. When we look at this intersection and we look at the timing of a driver going at 40 miles an hour, identifying a stop sign, identifying a something in the road, they need almost 140 feet of reactionary and stop time. If I, if I show you on the map, this being the intersection, 140 feet is in a location about here, it's quite far down the block.

As I look to that intersection, some contributing factors, one, the lane widths are quite wide. We would describe this, you know, as a margin of error like the, the designers of design this roadway in a way that allows for cars to wiggle through the lanes and to go faster without friction. If somebody backs out of a driveway, we've added that extra protection in so that we can divert around those cars and still stay on the road. But what that has done is that everybody has to follow the rules exactly a hundred percent of the time.

So as we look at this, but I look at this intersection, the very first thing I see is the stop sign is all the way over here on the right. This is a day where there are no cars parked here. But looking at the, if a vehicle was parked along here, we probably wouldn't see that stop sign, which

STRONG TOWNS

probably resonated a wide, it had to be put on the street. And in fact if by the time you read that, you're probably too, too close to the intersection to stop.

So as a driver, and that's not even to take into account like the location of its one, but also the care of that sign. The sign is faded, it's the smallest residential sign that is probably permissible. So it's not, it's not highly visible to drivers along along the street. When we talk about the enclosure here, all of these things that are above you, the streetlights, the hill, the topography, the, the fencing, these are all things as a driver, my eyes are, are actually drawn in this image. Either that stop sign or the things that are above us. So there's a lot of clutter here that doesn't allow me to be focused on the intersection.

And as we move forward to it, there's other conflicting things that, again, my attention may not be at this intersection.

It's gonna be hard to see the stop sign. You could imagine if a car parks on this driveway, I I, my view of that stop sign may be, may be blocked.

The, the other thing being, you know, a background of architecture, I'm one of those people that grew up with a T square and having to draft things. So when I look at an intersection like this, I understand that not all the streets are gonna come together at 90 degree angles.

I also understand the topography at this intersection. But when I start to see the, I think what's more important one at the intersection is if we look at the geometry of all of these crosswalks and stop bars, they're all at crazy angles.

So looking at these things, there is no white stop bar, there is no marking to that. And it's actually at some conditions of these intersections are not perpendicular to travel.

So as a pedestrian walking across here, there's additional time, additional pavement they have to cross as a driver. Very difficult for you to know where to stop, where to pull out at this

STRONG TOWNS

intersection because again, if I'm in the neighborhood, I'm probably thinking about knowing everybody rolls through this intersection, I'm gonna kind of creep up and figure that role. And I think we saw that in those videos.

The other piece about daylighting it is maybe the stop bars are too, you know, stop locations are too close to the intersection.

So that, again, if we're talking about adding in that margin of error, providing those pieces in, I disagree a little bit with Pete on the assertion that we have to dive into a lot, a lot of things to figure out what the ultimate cause of this. The ultimate cause as we dive down to all of this, is that somebody made a mistake that contributing to factors to that mistake are all of these built environment components. And we've talked about lane width, we've talked about the street signs, we've talked about the paint markings, we've talked about the optical space of the intersection, the topography at this location that then result into higher speeds that then result into people rolling through thinking it takes 150 feet to stop.

If you've missed that, you're gonna pump the brakes and kind of coast through versus like the jolt of stopping in your car on top of the thing. There's a residential neighborhood adjacent to things that people are familiar with. So, you know, the, that comfort level is gonna make us do things that we wouldn't normally do because we're so familiar with it.

So I think that there are a lot of, of things that I, I'd like to start to roll into now about identify after we've identified all these contributing factors, I think there are a lot of things that could lead to recommendations at this intersection that would raise driver awareness and start to address some of these contributing factors that would reduce the likelihood of this repeating on this street or a similar intersection in this city.

Tony Harris: Yeah. Thank you Edward. Anthony, if you are willing, would you like to pull us into recommendations since Edward set us up with such a nice segue there?



Anthony Catania: Yes, thank you Edward. So, so I'm going to, I'm gonna categorize my recommendations into three, three buckets. The first being short-term solutions, solutions that that can happen tomorrow theoretically. The second would be kind of the middle term solution and then long-term solutions, thinking about really the, the a a larger overhaul of the design of the streets in Carlsbad. But the first thing I wanted to start with, 'cause I I, I reviewed briefly the, the safer streets plan that Carlsbad put together. And there were a couple of things in there that I wanted to highlight that I think are not great solutions and the other panelists can, can feel free to disagree with me. But two of those things are, are speed humps and, and electronic speed feedback signs.

I noticed those, those two items in that plan. And you know, and I've seen these, I've seen these measures taken in other places and I'd like to suggest that these are probably not the most effective measures to, for traffic calming to slow speeds on these streets Speed humps, first of all, they have the, the reputation of being a kind of a, you know, an annoyance to drivers and you don't want drivers to be annoyed to have to slow down on a street. You want them to do it because they, they, they drive at a speed that the, the, the, the street makes them feel comfortable driving. So I think speed humps are not, not a great solution. And the other thing with speed humps is drivers tend to just speed up after they've, after they've driven over them. And, and it tends to, I think it tends to cancel out any potential traffic calming measures that they might provide.

And then, and then the other is the, is the speed feedback signs, which I think are probably an expense, an expense to cities that, that don't have a lot of effect on how people drive. Again, I think people drive at a speed they feel comfortable driving. And, and, and to Edward's point too, if you live in the neighborhood and you know that that sign isn't, in fact is not in fact a speed camera that's gonna give you a ticket, you're really not gonna pay any attention to, to how fast you're driving or what that sign says. And most of the time if you're driving 40 miles

STRONG TOWNS

an hour, you don't actually have enough time to see what that, what the readout is before you pass the sign.

So I think those two measures are, are two, two short-term measures that I think probably don't have a great effect on traffic calming here.

What I would suggest, let's take a look at the intersection here again. So I talked a little bit earlier about the, about the actual striping of the, of the crosswalks. Edward talked also about the geometry of the crosswalks, which I think was a great, a great great thing to point out. So I wanted to just come back to this street in Washington DC here to kind of look at the, the type of striping that was used for the crosswalks here again, white paint, a much higher volume of paint and a much more visible crosswalk.

So, the addition of crosswalks that are, that are, that are striped more in this fashion, the addition of a stop bar. And, and I think, I think actually the stop bar in on this street is probably a little bit undersized for what I would recommend on Basswood and Valley at this intersection. Because again, if you're, if you're approaching this intersection from 150 feet down the street, you want to be able to actually, actually see that stop bar from this distance. And so a much deeper stop bar here to give you and to give you enough time before that, that crosswalk to stop. So the crosswalks and the stop bar too.

The other is, is a curb extension. And I show this example of a curb extension as kind of my short-term solution because this is something that can be done immediately without moving curbs and without changing drainage patterns. And the engineers will tell you that, you know, the many months and months and months and usually years and years that it takes to work through the, you know, the construction drawings and approvals to move curbs and change drainage patterns. But to do a curb extension like this with paint and with paint, with, excuse me, with paint and with movable planters or other kinds of objects that are out at that

STRONG TOWNS

turning radius to narrow the street at the intersection is something that can be done very easily and and very, very inexpensively.

So this, this is another thing that I think is really important and and again, I should say too, one of the things in a short term solution, I know the, the, the, the collision in question here was an individual on a bike. So I understand that I think the, the short term solution is to do whatever we can at the intersection first to get vehicles to come to a complete stop. I think that is, that's really the, the primary goal of the short-term solution here.

So, but as we look further in the future, I think the next step would be the midterm solution would be to take this temporary curb extension and start to look at more permanent curb extensions at these really large intersections. And so this would involve actually moving the curb, moving your ADA ramp, reconfiguring your crosswalks, hopefully tightening up your curb radii here, so that cars are forced to make their their turns very slowly. And when, when that happens, it also reduces conflicts with people crossing parallel to the travel of vehicles. This car, I know this is a one-way street, but if this vehicle's coming down and making a right-hand turn this tight radius here is really slowing them down and, and, and reducing the conflicts of turning vehicles with crossing pedestrians over here.

And then just overall with a wide street and a lot of pavement, I really liked this before and after, this is a street that has a little bit of a kind of oblique geometry.

The Basswood Valley intersection isn't quite this dramatic, but you can see how they've taken an intersection that because of its geometry, was left with a lot of pavement, a lot of vehicular space, and they've really narrowed that intersection down just to the space that the vehicle actually needs to move through the intersection. And that really slows you down as you approach this intersection. The other thing they've done here is they've changed the actual material of the crosswalk, which can also be done throughout the entire intersection by changing and even raising that material so that it really slows vehicles down as they're approaching the intersection and as they're moving through the intersection.



Now the, so that's the, these are, these are what I would identify as the short term solutions, or excuse me, the midterm solutions.

Oh, you know what, the other one I wanted to mention too, since, since we're talking about a collision with a biker, you know, on residential streets, very often, very often you see the sharrow symbol that, that Tony mentioned earlier. It's in this photo here, you can see on the street you've all seen them, the bike with the little two arrows indicating that that bikes are essentially sharing the travel lane with vehicles. And although the street in question is a residential street before we start to narrow that street and bring the curb line in, if that would ever happen, it may still be necessary and advisable on a street this wide to think about painting bike lanes.

Now this is obviously a much more commercial street. This is Washington Street in Hoboken, New Jersey. But this street just does a really good job of delineating where the vehicular lane is, where the bike lane is. And by actually striping that on Basswood and Valley, here we are, we're taking that 20 foot travel lane and we're visually delineating it down to, to hopefully a more manageable lane width. I meant to mention earlier too, some of you may have been familiar with the recent study that was done by Johns Hopkins University related to street safety and lane width. And, and if you, if you read through just the first couple of pages, the very long study, but the first couple of pages have their key recommendations and on a residential street like this where the, the intended speed is absolute maximum of 20 to 25 miles an hour, they would recommend 10 foot lanes, possibly even nine foot travel lanes.

And so whatever can be done with paint to kind of visually narrow this street and, and, and, and have drivers perceive that they only actually have 10 feet of space to drive in as opposed to 20 feet of space, I think would go a long way. And again, that can be done just with paint.



Yeah, could be done. I'm sorry.

Tony Harris: No, I was just saying agreed understood that could definitely be done with, with paint. Go ahead.

Anthony Catania: Yes, yes, yes. Okay. And so I'm gonna round it out with my long-term solutions because I think this street and, and a lot of the other streets in this neighborhood really were designed many, many years ago as streets that are just too wide. There are too, there's too much space for cars and too little space for pedestrians and bikes. And so this, this is not my drawing, but it, it's a street of a very similar right of way width is the one we're dealing with here. We have, we have approximately a 50 to 55 foot right of way on the two streets in question here. And in that same right of way width, you, you could achieve by moving curbs and adding planting strips, you could achieve a street that is two lanes of traffic, parallel parking only on one side because the recognition here is that the parallel parking need is not very great.

So if we double up the cars and move them to the other side, you have that effect of more vehicles parked in the parallel parking lane and a narrower perceived area in which the travel lanes exist. This does a number of things, obviously we're bringing the curb in and we're visually narrowing the street.

The addition of street trees actually is very kind of magical. And it does that too, whenever you add these kind of vertical elements. And, and, and I, I know that traffic engineers tend to tend to, they regard these elements as as fixed hazardous objects. Do I have that right Edward? Yeah. Fixed hazardous objects and generally most departments of transportation want want you to clear these objects away from the edge of the street. Usually, a pretty significant distance from the edge of the street. But what we know in the terms of the psychology of moving through this street as a driver is that these vertical elements and even the canopy over the street, it, it psychologically confines you as a driver into a smaller area

STRONG TOWNS

and, and it makes you feel, makes you feel like you need to drive slower and it makes it seem like it's dangerous to drive faster.

So, I think thinking about a, you know, a, a more comprehensive set of streetscape standards throughout the community here that incorporate narrower street sections, street trees and, and, and certainly a more thoughtful intersection designs or one of the long-term solutions that I would recommend.

Tony Harris: Definitely. Thank you, Anthony. I appreciate how you laid that out. And then also the talk about oblique geometry has been very informative for me today. Pete, I see that you have your hand raised... See if we can get you unmuted... I think you're still muted.

Pete Penseyres: There we go. My league certified cycling instructor hat on.

I've been teaching for the League of American Bicyclists San Diego County Bicycle Coalition for more than a decade now. And, and a and a part of doing that is looking at the, the kinds of crashes that occur that involve cyclists providing, I mean, you know, we have a a a nine hour class, we teach three hours in the classroom, nine hour, six hours out on the road. So a three hour classroom, why do you need three hours?

Well it turns out that you spend about 15 minutes explaining the rules of the road, especially the ones that apply only to cyclists. Then you spend the other two hours and 45 minutes teaching cyclists the best practices to avoid collisions, avoid falling down, which is the, you know, the number one cause of cycling injuries. And finally what everybody comes for is how not to get hit by a car. We ask them before they come, what do you want? We want not to get hit by a car. So the other two, two hours and 45 minutes is to teach them the best practices to not get hit by a car.

And the number one thing to, to get through their heads, which is counterintuitive, is to be visible and predictable, which means riding where vehicle drivers can see you. So on a

STRONG TOWNS

residential street it means riding in the middle of the lane and that's what we see now in Carlsbad. The videos that that Thomas took, the, the cyclists that ride on these streets, there's very little traffic, usually they're the only ones there when they're out there and they ride in the little lane.

And I like to call that people that do that on a bike are portable traffic calming devices. Nobody that sees a cyclist in front of 'em is gonna intentionally run over 'em. It just won't happen. All bets are off if the driver's drunk, but usually they're gonna crash into something else before they can get to you.

So to recommend things like putting bike lanes on residential streets is sometimes it's counterintuitive but it actually makes things worse. Worse in some cases. First of all, it can make things worse by the fact that the bike lanes are often put right next to parallel parked cars, which then subjects the cyclists to being doored, which then if they the door comes open, they can either be traumatized by the collision itself or they can get thrown out into the travel lane. So a couple of cyclists were killed in the last few years in California for being door. There were four cyclists killed over hit door in Carlsbad last year in a one month period.

And those are the only the ones that are reported to the police.

So we have to be super careful about putting in bike lanes. When parking is allowed, you have to be outside the door zone. So one of the things that Carlsbad has done is part of this safer streets together is commit to at least a two foot door zone buffer next to a five foot bike lane next to parallel parked cars. So a seven, basically a seven foot wide space with two feet reserved for the drivers to be able to get out without during a cyclist also provides a space for handicap people to get into their cars without standing in the middle of the bike lane. So, so I think we have to consider unintended consequences when we talk about putting bike lanes in on residential streets and the cost of that is not insignificant.

STRONG TOWNS

So that's, we have to be prac-, pragmatic, practical and what the city is willing to do. So again, I go back to let's find the root cause here and then be able to apply that root cause everywhere else.

One more thing I'd like to ask, and I was gonna bring this up earlier is just a question. Would it be better if an intersection like this, instead of being an always stop was two-way that one of the streets would go straight through?

This is a, you know, you saw the, the overhead of this, this is a hilly area. There are intersections like this all over the city and they're almost all four-way stops.

So non-compliance becomes an issue. 'cause everything, every, every block or so, you're gonna hit another stop sign. So one of the things you might wanna do, and what we teach in, in our cycling class is if you get to an intersection and you have a stop sign and the cross street does not, you need absolutely come to a full stop and then look out both ways and make sure it's clear before you cross. And of course if you do that you have to make sure that you, that your sign says cross traffic doesn't stop.

I'm just asking the question, do you guys have the expertise to tell us, is that a better way to do that in an, in an area like this, should one of those streets be a through street versus the other one a stop street? And if so, which one would you choose?

I would choose Valley since it already has some de facto traffic calming element because that drain causes cars to go through a dip as they go through on valley. Is that something that, that you've talked about? I dropped out when my internet dropped me out for a while and I missed some stuff. Was that a part of the discussion?

Anthony Catania: Do you mind if I, I take a stab at that, Tony?

Tony Harris: Yeah, go for it.

STRONG TOWNS

Anthony Catania: I actually before, real quick before I do this, Pete, I just wanted to address the, the bike lane issue because fundamentally, by the way, I think you're exactly right in terms of resisting the urge to paint bike lanes on residential streets. And I actually hesitated to show that image in Hoboken. And really the, the point I really wanted to get across there is trying to figure out a way with paint to narrow the travel lanes to slow drivers down. That's really kind of the first, the first, the first step there. But I think ultimately the goal for a residential street is for the bikes and the vehicles to coexist in the same, in the same zone so that the, the bike is visible.

And what you need to have in order for that to happen and to be safe for the biker is for vehicles to just be traveling at a very slow rate of speed. And as you've mentioned in, in this case, there's also the traffic counts. I have, we hadn't been able to get ahold of that data, but it sounds like the traffic counts in these areas are also very low. So, so I totally agree with you and I think the goal for these particular streets in, in the final, final design iteration whenever that what that is is not to have delineated bike lanes on a street like this.

So I think you're exactly right about that on the, the the four-way stop versus the, versus the two-way stop. I think that is not something that I would necessarily recommend in when you take that along with all of the other recommendations that we've gone through because I think right now drivers feel kind of, they must feel kind of inconvenience that they have to stop at all of these four-way stops. But that's kind of because they're traveling at 40 miles an hour between these intersections and these stops kind of come up much more frequently. But I think if these streets are really narrowed down and traffic has slowed to 20 miles an hour maximum, which is, which is what I think the, the design speed of these streets should be. I don't think that the four-way stop will cause as much non-compliance as it currently is now. And certainly from a pedestrian's perspective, vehicles that have to stop are always better than trying to negotiate a, a crosswalk when, when vehicles don't have to stop. So I think it's a, I think it's a good question to ask, but I think once other measures are taken, I think the non-

STRONG TOWNS

compliance of all the four-way stops will not be so dramatic as it is today. So I don't know if any others have, have thoughts about that.

Edward Erfurt: I don't see that as a contributing factor to this crash. Hmm. So I, I think that the, the non-compliance of drivers throughout the neighborhood, one, one approach is if everybody's breaking the rules, let's remove it. The other approach is maybe every intersection in this neighborhood needs to have four-way stops. So if every, because this intersection is different than the others along the stretch, it drivers may not be aware and that may not see the importance of, of that.

I'd be interested, I know the city's done a lot of data, like if we were to look at data on these things, are there are the two way or the, you know, the three move the through through movement with the cross street on stop signs, do they see fewer crashes at those areas? I mean that's, that's kind of, that's kind of where that question would be for me within this.

Tony Harris: Yeah, I'd be interested in, in unearthing some of that data too and seeing what we would be able to uncover looking at through movements as opposed to a four we stop keeping. Yeah. Pete, go ahead. Oh, Pete, can you hear me? Sure. I'm not Pete, can you hear me? I saw that you raised your hand. Yeah, go ahead.

Pete Penseyres: Okay. Yeah, I'm wearing hearing aids and my phone is connected to somebody just called me, I'm sorry.

Tony Harris: No worries.

Pete Penseyres: Okay. Yeah. One thing I wanted to address your question. You know, the, the amount of traffic at this intersection, and, you know, because this, you know, the whole city is laid out like this, you know, relatively short blocks, lots of intersections. There are lots more that look just like this.

But one of the things you asked about was a number of vehicles. And when we took those videos, I just counted cars for like a half hour. This was on, this was on a weekend and middle of the afternoon, and there were a total of 68 cars in 30 minutes.

So, and that's all four directions at this intersection. So there's not, there's either when, when any of these schools go in, this place is jammed. I mean, nobody can go more than 10 miles an hour because they're all backed up in all directions when these schools are. And they, and they, they, so on a school day, you, you're totally congested. Nobody can drive fast. And so therefore it's very safe.

It's when in conditions like this where you only have maybe a hundred vehicles per hour on both streets, that people tend to go to sleep. So, you know, part of the issue perhaps is not enough traffic or at least not enough bike traffic so that people pay attention. So just a thought to bring up the, that's an, you didn't have that information.

Anthony Catania: That's an interesting correlation to some of the, some of the, the headlines I was hearing around Covid, you know, there were a lot less people on the road, but there were a lot more crashes and it was, you know, some were attributing, attributing it to the fact that, that people were driving faster because there were so, so few people on the road and it was actually more dangerous.

Tony Harris: Yeah, absolutely. I saw a lot of articles that, that drove that point home too. With regards to Covid. Could I open it up to maybe Thomas and Edward for any further thoughts on recommendations before we, before we move toward closing?

Thomas LaCroix: Yeah, I can take this. Sure. My recommendation, I heard that they, that the city of Carlsbad likes roundabouts, and as Edward said, there are kind of, it seemed like there are two branches of two ways that you could look at it. Maybe the problem is that nobody is

STRONG TOWNS

stopping, so we need to do a lot of things. We need to do a lot to slow traffic down, make them stop. Or the fact could be that nobody is stopping, so maybe they don't need to stop. Maybe the answer is a traffic circle, which I heard that Carlsbad likes. So I leaned into that direction and I made a quick Draw. Oh, that's gonna be a blurred. So anyways, very simple. Doesn't need to be shown. Just my main point is that I want the city to lead the public to making the intersection safer. I saw some of the community outreach. One of the big, one of the headlines on the city website was preserved parking prioritized in Barrio. They put a traffic circle in an intersection in Barrio, and they reached out to the public. They are doing things, they're putting in bulb outs, curb bulb outs, which is great. They suggested raising the crosswalks or raising the medians, and the public said, no, we don't want to do that. So the city said, okay, then we will not prioritize safety, we will prioritize parking.

That is not leadership, in my opinion. I want all, I wanna see, because I'm a layman, so my suggestion is a roundabout and to put in speed bumps before the stop signs and to put in a pedestrian refuge halfway through. But I'm not an engineer, so I, you know, maybe that doesn't make sense. So what I really want to focus on is to do something quickly and to do it cheaply so that when it happens quickly, we can observe, or the city can observe what happens and make sure that this 20, that the speeds are indeed reduced. Because that's the most important part is vehicle speed. So if we put in speed bumps and HAWK signals, or whatev whatever we do, and we've gone through a year or two and we've spent a lot of money on it, and it doesn't do anything.

Now we've spent a lot of money, all that political capital has been spent and we, and nothing is going to happen. It will still be just as dangerous. So I just wanna focus on reducing vehicle speeds, do whatever it is that they, that they choose to do, do it quickly, do it cheaply. And like Anthony said, there, there are, you know, he, I defer to him on, on actual engineering. There are midterm and long-term goals that are, that could really help. But in the short term, put out some planter boxes, put out speed, you know, like turn wedges, whatever it is. But please show leadership. Do it. It is now a California law to remove to daylight intersection.

STRONG TOWNS

That's a very easy win. Daylight that intersection, and then, which means remove the parking 20 feet back, use that to bulb out the curbs, you know? So anyways, I just wanna say show leadership, please do something that works.

Tony Harris: Thank you. Yeah, I think the emphasis on doing something cheaply and quickly is really important, right? Like if you're gonna try something out, try it out, see if it fails. If it doesn't iterate on it, and if it does, then you haven't lost that much, right? If you, if you took a quick and cheap implementation route. Yeah. Edward, anything further from you?

Edward Erfurt: Yeah, let, let me recapture some of the, the, the two contributing factors I think that this group had identified at this intersection is, is one contributing factor is that they're speeding. So we know that by excessive speed, it's going to result if when there is a crash, the higher rate of fatality, not to mention the inducement of, of missing the stop signs. And the second most important thing I think that was identified as a contributing factor is the car didn't stop at this intersection.

The measures put in by the engineers didn't result in a stop. And we, we've described all the reasons of why somebody would miss that, whether you're on a bike or in a car. And, and the fact, I think that Pete has identified that there has to be two and a half hours of training to keep pedestrians aware of what cars are doing so they don't get killed. It is something that is chilling. This intersection looks like an intersection in my neighborhood.

So when I look at this, I see this intersection all over the place. It's very familiar to me, even though I don't live in Carlsbad. When we talk about speed, the fastest way to get somebody to lower their speed is to stop, right? Right. So if I go and I think about measures, some of the measures I would, I would look at in an intersection with this much asphalt is something that are the, like the mini roundabouts that are the traffic calming circles that are put in and they're not hard to find, but one I found as a California example is out in Redwood, California.

STRONG TOWNS

Here's an example, and, and I, I don't know much about this, so I'll speak to what I see that may not correlate directly to what is being utilized within this municipality. But here's an intersection that is not as, it's, it's narrower than where we're at. So clearly they had a pavement, speeding stopping issue at this location, putting a circle in the middle of the road, or a planter in the middle of the road alerts the driver that they may not need to stop. There may be a yield condition, but clearly they need to go slower. And we know what these, the engineers can tell us of what the, the dry speed around those, it gets us way down low, slower, they're somewhat more desirable in areas that the stop and go car traffic keeping things moving.

But if everybody in the whole neighborhood is going slower, we're more aware. We have, we have shorter timing. We stopping, we are getting the cars on this street. I agree with Pete, I don't think that bike p in bike lanes, the only thing p in bike lanes would benefit in this area is the visual narrowing of pavement. But the consequence of that is you're, you're investing in something that is more dangerous for the cyclist. But when we look at this, what I like about this is it's temporary, it's flexible, and it's highly visible.

This is something that a city like Carlsbad probably have, they may not have the trees available, but they have the cones and the chalk and the paint available.

So, when we talk about a strong towns approach of dealing with these types of conditions, we would talk about the short term components. What are the things that a community could do Right now when we talk about the, as as Thomas has shared about getting the community involved and getting their input, I, I think all of us have been around long enough that we've been to way too many public meetings to talk about what we could or should do as opposed to actually taking action at, at strong towns, we're seeing groups all across the country that are taking the innovative approach of using temporary materials, cones, straw bales, delineator sticks, the plastic and, and rubber curbing and barriers to go in, to put in temporary measures.

STRONG TOWNS

When we put in these temporary measures, because they're temporary, we can put them in and out as in the same amount of speed.

It also allows us to be very flexible in it. So when we look at it, if, if, let's say examine, if we were gonna examine this intersection and test mini roundabout in the intersection or test a curb extension, we could put it in and then we could see when the school buses go by or the garbage truck is at the right radius, we could observe immediately our cars plowing through it. Do we have enough awareness a block ahead that this is occurring?

And unlike a public meeting, the folks that would experience this temporary component are the ones in the neighborhoods driving it. So I don't have to have them come to a public meeting. I just ask them to do their normal j normal job. And, and in a city that there's maybe more civic activism, like one of our local conversations or a bike ped community, somebody working on critical mass within a community, those are the volunteers to bring out, to help with the temporary measures in this particular exercise so that those folks can learn and train themselves to communicate in the way that they can, that an engineer or city official can't to their neighbors.

So when I look at this intersection, the temporary measures is how do we get folks to actually stop at this intersection?

I like the temporary measures with straw bales and paint. I think something like a mini roundabout or curb extensions for those optically narrowing conditions or the daylighting of the intersection. So people are aware that something is different in here with those temporary measures. Once those are put in and they're observed and the things that work then can become more permanent. So in the future when this road gets repaved, that's the time to look at curbing with, there's money that's in there to go and, and remove asphalt and green up the intersection or deal with stormwater. You could insert that in this area that the additional

STRONG TOWNS

asphalt that you don't need by getting those temporary measures in, which is something that I think could be put in literally within a matter of hours.

The other component and recommendation that I wanna assert here is there are cities like Cincinnati, Ohio that have created a quick response team within their transportation divisions. So when there is a crash like this, when there is a resident that is complaining about high speed or traffic, call me, you know, a desire for traffic calming, the default isn't we're gonna drop in speed humps. The default isn't. We're gonna do additional speed enforcement with the police department. What we're gonna do is have maybe a three person team at city hall, maybe the police has a police traffic engineer and maybe a planner or maybe public works and the, the traffic department and the police department, a small team that's empowered to implement these small interventions where they take the opportunity to go out, observe what's there in a studio session like we're doing here, and then do the next smallest thing, insert the temporary functions there.

And we're seeing in places like Cincinnati that, that do not have the wealth and affluence of a city like Carlsbad are able to do this with under \$500 to make positive impacts and get feedback as they do it. Those eventually will be permanent projects. But a, a place like Carlsbad where clearly there's a lot of, you know, we, we've got two residents or adjacent residents on this panel with an enormous amount of insight. A committee like that that has the authority to do something quickly could start to get these intersections moving. You know, every week an intersection could be examined and reviewed in the city with these temporary measures. And in a very short time, the the city, not only would people become more aware of what's happening so that their driver behaviors would change, the physical environment would be designed in a way to match the desired result we want on the streets. Which the, you know, the core piece for Vision Zero is we want everybody to be able to get to and from their destinations alive and safely.



So looking at these small temporary things, that's when I see this going back to those core elements of making sure people stop at an intersection with stop signs, whether it's two or four streets with full stops. And then also in the neighborhood, clearly getting the speed down. And I think some of those things paint signage immediately and then looking at these temporary measures in the short term, the temporary measures work, make them permanent.

Tony Harris: Great, thank you Edward. I think that was a really helpful summary, just being cognizant of time. I think I'm gonna move us into our closing section, if that's all right with everyone. I'm gonna share a few links in the chat out to everyone who's still with us and I will share my screen one more time.

So I would like to offer up some thanks and acknowledgements to people who have helped us put this session together for today to no small feat, that's for sure.

So first I'd like to thank our panelists, Anthony Thomas, Pete and Edward for being with us today and taking the time. Thomas, we really appreciate you nominating this crash in the first place, right? And helping gather all the necessary resources and supporting us in our work. Along the way, we want to express gratitude for people like Tom Frank City staff and other community members who have helped out over the past several weeks and months. And I wanna say thank you to the sponsor of this event and anonymous donor and to strong town staff who have helped contribute over again many weeks and and months leading up to this session.

So you can find a recording of this session and all of our crash analysis studio sessions by going to [strongtowns.org/crash studio](https://strongtowns.org/crash-studio). That should be in the chat that I shared with our group. And our next virtual studio session will take place on February 23rd, and you can find more information about that on our website as well. Also on our site, you'll be able to find some links to our free academy course for establishing a crash analysis studio in your own community. And if you're interested in having strong town staff, visit your community to co-



host an in-person studio. There's an inquiry form on our site as well that you can access and fill out.

So on behalf of my colleagues and the assembled panel, thank you for watching this session of the Crash Analysis Studio and keep doing what you can to build a strong town. Thank you.

Edward Erfurt: Thank you.