



Crash Analysis Studio – Madison, WI 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: Hello everyone. I know people are still filing in, but I do think I'm going to slowly get us started and do our introductions and get us into our session for today.

So I would like to start off by saying thank you for joining us on this summer Friday, and let me welcome you to the Strong Towns Crash Analysis Studio. We're really glad that you're here with us today.

My name is Tony Harris and I am an engagement coordinator here at Strong Towns. And in a couple moments I will introduce you to the rest of our expert panel. But first, let's talk about why we're here today.

The National Safety Council estimates that over 44,000 people in the United States died in automobile crashes throughout 2023 hundreds of thousands more suffer 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?” and who should we blame?

The reality though 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 traumatic injuries and deaths 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 Madison, Wisconsin during this crash in August, 2023, a motorist was taking a right hand turn on red when he hit a person traveling on foot.

This person died in the hospital several hours later.

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 the collision.

I want to emphasize 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 talk with our experts, we need to begin with the fact that this tragedy resulted in the death of a community member. Even though we may not know her name, 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.

First we have Dean Chamberlain, who is the engineering group manager in Tool Design's Minneapolis office. He is experienced in traffic engineering, preliminary design, final design and construction inspection. Dean is detail focused and strives to provide clients with the highest quality product while demonstrating excellent customer service. He rejoined tool design after seven years in the public sector, most recently serving as the city engineer for a city in the Twin Cities metropolitan area. He is passionate about making places where people of all backgrounds and abilities can thrive using whatever form of transportation they need to access daily activities in a safe and effective manner.

Next we have Josh Olson, who has lived in Madison for seven years. His journey in the area began as an engineering student at University of Wisconsin Madison. And as a senior it dawned on him just how much he loved the city and how much he wanted to stay. Josh has lived in several parts of Madison since graduation and through his frequent use of bike paths, he has grown acquainted with the importance of safe infrastructure. Josh works in healthcare information technology and he loves being a coordinator of the Strong Towns Madison Local Conversation group. Josh continues to plan a future in Madison with his girlfriend and their two cats, cheese, puff and poppy.



And the next we have Alex Thomason, who is the Prairie Hills Neighborhood Association President in Madison. He works nearby Josh Olson and Alex identifies as both a concerned citizen and a safety advocate.

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 safety issues posed by roads, streets, and intersections like the ones that we are gonna look at today. And Edward actually visited Madison earlier this week. So now I'm going to walk us through the details of this crash in Madison.

I'm gonna share my screen here and I'd like to begin with what we know about this particular crash.

So a person was walking west on Raymond Road and they were struck by a turning motorist now that motorist was driving a DHL delivery truck and taking a right turn on red off of Prairie Road just prior to the collision.

The crash occurred at 1:41 PM on August 1st, 2023 and we know that the non-motorist, the person walking passed away in the hospital at 1:12 AM on August 2nd. We're also aware that Madison had clear weather and was dry on the day of the collision.

And then we found out through the quarterly report to the Transportation Commission, which was a document that we source during information gathering that the causal factors were stated to be inattentive driving and failure to yield.

However, in the crash report that we source, the motorist was listed as not distracted and he indicated that he didn't see the non-motor until the crash had already happened.

STRONG TOWNS

So the person walking was listed as being at the intersection and the intersection itself is described as either unmarked or unknown if marked crosswalk.

Now this non-motor was transported to the University of Wisconsin Hospital after the collision and that is where she unfortunately succumbed to her injuries and law enforcement did not suspect that the motorist had been using drugs or drinking though blood test results were listed as pending in the crash report.

So here you can see a map with the crash location marked by a red pin.

And then on this slide I've zoomed in on the intersection a bit so you can see the person traveling on foot marked as the blue shape here.

And then we've depicted the motorist as an orange shape making that right hand turn.

And we outlined the area where we believe they came into contact with one another and collided in red.

And then the crash report tells us that the motorist came to a stop afterward over on the right hand side of Raymond Road there.

And then on this slide you can see that progression illustrated once more. This is just a diagram from the crash report that we wanted to make sure that we included as well. So you see the vehicle and then the outline of a pedestrian or a non-motor tier and then the vehicle wants more.

So the speed limit on Raymond Road is 30 miles per hour and we know that the limit on Prairie Road used to also be 30 miles per hour, but it was reduced to 25 miles per hour in 2021 as part of Madison's vision zero speed reduction initiatives and law enforcement did not indicate this

STRONG TOWNS

crash to be a noteworthy event and we wanted to make sure we mention that because that classification as a noteworthy event is a precursor for media coverage and seems to be likely the reason why there was little to no press about this particular crash, at least not until recently.

Now a little more on the overall conditions of the crash location. So the part of Prairie Road where the driver was coming from has one northbound through traffic lane and one southbound through Traffic lane. There's also another northbound lane that is shared through traffic and left turns.

And we also know that the southern part of Prairie Road has some unprotected bike lanes.

And then at this intersection, eastbound Raymond consists of a parking lane, a dedicated left turn lane and two through traffic lanes.

And then all four legs of the intersection are signaled they have marked crossings and they allow for access to sidewalks.

So our nominator and expert Josh Olson gathered some great photos that I wanna share briefly with you all now. So this first shot here is a photo of the crash location from the non-motorized vantage point. So this was taken standing at the southeast corner of the intersection

and then this next photo was taken from that same perspective just with an eye toward the full intersection as opposed to the crosswalk where we had been looking before. So you can see the north side of Prairie Road and then the west side of Raymond here.

And then I wanted to include this photo to illustrate what the area looks like from the Southwest perspective. So this photo would've been taken directly across from where the individual was hit.

STRONG TOWNS

And then these next photos show the intersection from the northwest and northeast corners. Just wanted to include these to sort of widen our view of the area in total.

This shot here illustrates what it's like to travel along Raymond Road toward the particular intersection that we're looking at. So this seemed important to include since it sort of demonstrates what interacting with this space as a motorist might feel like.

And then finally I included a shot here of the travel lane on Prairie Road as you're entering into the intersection. So this is where the driver would've been coming up to before that right hand turn on red.

Now Josh also also helped get measurements of the intersection where the crash happened. So the south portion of Prairie Road has two 11 foot wide northbound travel lanes and like I mentioned earlier, one of those is a shared left turn lane.

The southbound through traffic lane is 20 feet wide and on either side of the road you're going to find five foot sidewalks and eight foot planters. So this makes the distance across the traffic lanes 42 feet and the total distance including sidewalks and planters comes in at 68 feet.

And then we wanted to include measurements for the eastbound portion of Raymond Road in particular since that is where our driver was turning onto.

So as you're coming into this intersection heading east, you're going to see an 11 foot parking lane. Then there are two eastbound through traffic lanes. So one of those is 10 feet wide and the other is 12 feet wide. There's a dedicated left turn lane that's also 10 feet wide and that makes the width across those eastbound lanes 43 feet.

STRONG TOWNS

And then when you add in the median these westbound lanes, the sidewalks, the planters, that brings the total width of the road up to 112 feet total.

So the overall development pattern here is what I would describe as suburban, right? We can see that there are multiple neighborhoods on either side of Raymond Road. And I also wanted to note that Raymond Road connects to State Route 18 on its east side. And I'm gonna take us to a surrounding area map.

Just to point out, you know there are multiple parks in the area around the crash location and then there are also multiple schools.

Now many of the north and south streets like Prairie are really walkable and friendly to cyclists. At least that's what I've been told by some of the locals that I've I've spoken with. And it sounds like Raymond Road might feel like a bit of exception to that norm.

So Josh also conducted a speed study for us and he conducted the study under typical free flow traffic circumstances.

So Josh managed to track 269 cars and 98% of them were going over the speed limit. 53 drivers were going 10 miles per hour or more over the speed limit and 85% of drivers were found to be traveling at or below 37 miles per hour.

So I'm going to stop sharing my screen for now and I would like to turn to our panel and ask, you know, can we talk through some of the factors that we think might have led to this crash happening?

Dean, if we could start with you. You know, if you could walk us through your thoughts that you have and if you wanna use Google Street view or screen share, anything to point out specifics, please feel free.



Dean Chamberlain: Great, I will be doing that. So thanks Tony and and everybody for allowing me to be here for this crash analysis studio. I'll just give a little bit additional background for me. I went to college UW Madison as well and during college I worked pretty close to the site and I also had a good friend from college who grew up in this neighborhood just to the south of Raymond Road here. So I have actually driven on Raymond Road before, not on Prairie, but I can attest that Raymond itself feels like a racetrack just with how open it is and and whatnot. So I'll get into that in a second, but just wanted to provide a little bit additional context there.

So I guess I'll, I'll distill my, my comments into a few themes here that I think others will probably also say too. But here's a Google Street view kind of share here. Hopefully you guys can see that. Yeah. Okay, great. Awesome.

This is on the south leg of Prairie, kind of in a similar place that Tony was sharing those photos that Josh had taken.

This gray car in street view is approximately where that delivery van would've been taking the turn on to Raymond here with this area being where likely the, the person walking was unfortunately hit as well. So a few things that I'm noticing here at this intersection is, first of all, visibility is a problem.

There are various things contributing to this.

One, you can see kind of behind this car that there is a signal control cabinet that can block view to somebody who may be walking on the sidewalk. Over here there's a signal pole which isn't particularly wide, but it is wide enough that potentially somebody could be blocked visibility here. But I think the biggest visibility problem is actually over here.

STRONG TOWNS

And this would be where that, that that delivery truck that was involved with the, the crash would've been, the driver would've been looking over this way most likely to kind of negotiate the turn on to Raymond. And so as you can see here, then this isn't exactly where, you know, the, that person would be right here. This street view image was taken from a little bit different angle. But I will just say a few things here that these trees, I would guess were probably in the line of sight for that, that vehicle that motorist. And then also, I'm gonna just scroll up here a little bit to interestingly the, the vantage point here on Google Street view is almost exactly where that person would be walking, crossing the street here as well.

You can also see in this image there's parked cars on the, on the street here, which could have po some visibility problems as well for people for this person who would be turning here looking towards whoever is oncoming to this area by driving. And one thing I'll note too is that, you know, you saw the, the vehicle speed information that Tony shared, which is kind of outrageous I guess if I could use an adjective, but not terribly surprising given the dimensions here.

One, even though the speed net isn't necessarily directly affected this crash, I think it definitely has a large indirect effect about what's going on here. If this delivery driver who is involved with the crash has, you know, is familiar with this area and knows that, you know, there are high rates of speed for vehicles on Raymond Road, they could have been considering that like I have to like really be looking for those vehicles flying down here. I really have to be like concentrating over here at this vantage point and not concentrating right here at this vantage point where this person was walking. And so that, that vehicle speed on Raymond I think contributes towards the direct crash that happened here as well.

The speed of vehicles on Raymond and and Prairie to some extent as well also directly contributes to how much visibility you really need at some of these intersections to be able to negotiate the complexity of what's going on at this area. And complexity in residential, you know, urban form areas is common, it should be expected, but there's not a lot of flexibility for

STRONG TOWNS

a highway footprint street within this context, which Raymond definitely is. I'll just note that you know, there are some 10 foot lanes travel lanes within the Raymond corridor, which you know, is less than we'll say a highway with traveling, which I guess is good, but I'll just say travel lanes traveling with, if there's no other kind of friction we'll say, whether that's parked cars right up adjacent to the lane or other vehicles or a curb or a tree or some sort of vertical elements nearby, you can have whatever with travel lanes you want and people will still travel at high rates of speed at least.

That's kind of my experience.

I'll just note that the, I just, I did look up the traffic volumes for Raymond and the most recent year it was about 11,000 vehicles per day, which is actually below the capacity of even a two-lane roadway.

So there is, there's not a lot of, we'll say traffic happening on Raymond to, to warrant what you're seeing out here today.

So I'll leave it at that for now and really interested what other people have to say here too.

Tony Harris: Great, thank you Dean. Yeah, it's enlightening to think about the traffic volume and, and forms of friction in that area. Definitely. Maybe Josh, could we come to you next on factors?

Josh Olson: Yeah, first I just wanted to highlight that I didn't come across this, this crash in this fatality kind of like through media. Like Tony mentioned, this was something that I heard about listening to. It was a, the Madison Police Department quarterly report where they review basically a lot of different types of traffic incidents. So they mentioned Raymond Road and I said, oh that's near me.

STRONG TOWNS

And I looked it up and it was two blocks away from my apartment, but it didn't make the incident report. So there wasn't any local media that were aware of this to that point. There was a channel that stopped by on Wednesday to kind of talk through this whole studio that we're doing and what led to the, the crash and the reporter was saying she could not find any information on this. So it took a lot of digging into it to even understand what was happening here.

In terms of factors, I think the, the phrase that I've become aware of recently is inattentional blindness, which is doing the same thing over and over. You can kind of become unaware of stimuli that really you should be considering when you don't perceive those stimuli.

It can cause problems like what happened here. So if we're looking at a truck driver, someone who's doing the same route over and over, whether it's a commute or a route, your instinct is to look left for those speeding vehicles to make sure that you're not putting yourself in danger. But there are often people, pedestrians, neighbors walking their dogs that they are to your right and you need to be paying attention to them. I think to that point, when we were out there on Wednesday when there's a group of people that are near the intersection, neighbors were coming out and kind of talking to us and many of them were not surprised that this was a, an intersection of focus.

We even talked to one family, they have three young children and they were like, this is, we're glad that you're here looking at this because this is a place where people are expecting to walk and walk safely. It's a neighborhood, it's not like a a highway.

The visibility is a, is a big thing. I think also Edward on our walk on Wednesday pointed out that one of the traffic signals currently is covered by some tree clippings. So that to me is a really easy, simple thing to resolve. Just make it easier to see red lights and slow drivers down as they're approaching that intersection rather than kind of getting them to a rolling stop and looking left.



Tony Harris: Great, thank you for that elaboration and for letting people know, you know, how you came to be acquainted with this crash. I think that's really important to understand too.

Alex, maybe we can come to you next on factors.

Alex Thomason: Sure. So I, I think I can give some maybe historical or neighborhood context to, to the, to the issue. Raymond Road is a, a canyon, so it, for most people it is a barrier that they do not want to negotiate on foot.

So our neighborhood association spans Raymond Road, so we have part of, you know, the neighborhood South Raymond Road, then part north. And whenever we do activities we have to consciously think about whether or not we're doing it north of Raymond Road or south of Raymond Road because people south of Raymond Road likely won't attend, they won't go to an activity, even if it, they could walk to it, even if it's within let's say a quarter mile, they'll either drive or not go and it's because they feel so uncomfortable crossing that road. So that's a little bit of neighborhood context.

I think second I wanted to call out here was that it is a neighborhood road. The entire span of the road has houses on it. There are duplexes, fourplexes, single family houses. It's a, it's a very wide variety of, of housing options and the people that live in them, you know, vary as well.

If you, if you go there today, there are bus stops all along Raymond Road and if you want to transfer from one bus to another you have to cross Raymond Road. And so I I think a lot of people are gonna be uncomfortable doing that.

In my, my own experience on Raymond Road, especially that intersection, 'cause I live maybe a quarter mile away from it, my experience there as both a pedestrian as and as a driver.

STRONG TOWNS

It kind of goes back to what was mentioned initially, your entire focus is on oncoming traffic. So you look to the left to make sure you're not pulling out and getting t-boned by a car and that redirects your attention away from the, you know, the right side of the road. And so I have no doubt that that was a significant factor in this, this collision.

One thing I wanna point out, just sort of related to the road itself, it, it was built as part of sort of a, a overarching 1960s suburban planning effort. So it, the intersection at Prairie and Raymond didn't have a light up until maybe 10 years ago. So the entire length of Raymond Road had very little controlled traffic control devices. It didn't have crosswalks up until maybe five years ago.

And so the road is trying to play catch up and trying to figure out what it actually is.

Is it a limited access road? Is it a neighborhood road? It's sort of meets the criteria for a stroad but it doesn't contain all of the commercial, you know, aspects that we think of when we think of a stroad.

It only contains, you know, there's one gas station and then a bunch of housing. But it is, I think it, it has all the dangers of a stroad but it doesn't have maybe the normal characteristics we would think of a stroad. .

Tony Harris: Thank you. Yeah, that's really well put. It's always fascinating to me to hear a little bit more about historical context and and neighborhood context too.

Great. Edward, would you like to go next?

Edward Erfurt: Yeah, when I was invited to be part of this panel, I went and looked at some of the street views to kind of understand the history of this intersection and I want to pause and

STRONG TOWNS

recognize that over time things have been added that we would say would be improvements to this particular intersection.

I, I could see on Raymond where there were two ambiguous lanes that have now been developed into kind of three clearly defined lanes with one ambiguous use. So where two travel lanes were, there was a narrowing of those, the two lanes, there's a weird shoulder parking bicycle lane that exists.

I can also see in, and you can see it in street views, it looks like in 2019 there wasn't a traffic light there and in it shows up in the pictures in 21 that it traffic lights. So it went from stop signs to traffic lights. So, and I, I could see at the intersections where the pedestrian crossings are, the ramps have been updated and revised over time. So the city is putting an effort into there and when I looked at all of these things from that, I looked at the maps, I kind of had some preconceived ideas of what was going on in this intersection.

Then I actually had the chance and this is the first crash I've had the chance to go to and actually go out to the intersection and I spent about a half hour before anybody got there and just observed and I observed driver behavior that is outside of anything you would see in a textbook.

I saw driver behavior where cars that there's dedicated on prairie, there's dedicated turning lanes and through lanes I saw drivers use them both to go forward as through lanes and try to merge somewhere in the intersection.

I saw because the high speeds, part of the high speeds are that extra ambiguous lane at the intersections is becoming a D cell and an acceleration lane on the Raymond.

STRONG TOWNS

And then I saw how drivers were behaving at the intersection with total disregard for the striping and where the stop bars were. So those are things that I wouldn't have seen except for being at the intersection. And I wanna recognize that drivers are not stopping at the lights.

So even though the textbook would say that to an engineer, so when I look at these types of crashes that that was something I observed. I wanna share some of the, the pictures. 'cause as I went through and actually looked at this particular site, I feel there's an obligation to look at it from all of the perspectives of the easiest perspective for me is to look at it from a driver in, in the car. So I'm looking at it from the perspective of the, the person within the vehicle.

When I look at this intersection, we can begin to see this is prairie coming up to Raymond there. If I look here are the traffic lights, this is where a pedestrian would be. So as I'm coming up, there's things that are obstructing my view coming into this intersection.

It's also getting much wider as we're, as we're approaching the intersection. So coming down prairie, which in itself is a wide road, there's, there's that much obstruction there.

One would actually begin to gain speed. There's also a slight elevation up to the intersection. So this idea of driver behavior of where you actually might speed up to this location. The other fact is that where my eyes are, are not really where I would think one would be.

And we can begin to see further the traffic light. If I'm a driver, I'm looking up into the right or I'm looking out into the left again, this is where the pedestrian would be or the cyclist as I'm coming to this intersection, my eyes are not at an area that I would be looking for anybody other than where those traffic lights are.

At a, at a road, somebody may be going more than 25 miles an hour. We know the stopping speeds and reaction times would be difficult. You actually don't have the view of anybody that would be at that intersection.



A again, somebody is here, it is a pretty big blind spot.

So, and at a corner where people are taking a right turn, you're not gonna stand on the ramps. You're probably gonna be standing here. So again, as a driver, my eyes, I'm not gonna see the traffic light here. My eyes are gonna be all the way up in this location furthest away if I'm doing a dedicated right turn movement.

And again, as we go through the intersection, we can see how people are interacting with those.

I'm not, I'm not seeing the pe if there was a pedestrian there, even at the intersection as I'm almost here, my eyes are up top.

If somebody is standing in this area, 'cause that's the top of the ramp, I I'm not gonna see them. So the well intentioned idea of putting a traffic light here, the equipment box is actually in a very dangerous location.

And this is new. This has been added post some of the crosswalk pieces. So crosswalks are there and then this is additive. This is something that I don't think you would see on construction drawings. You wouldn't recognize that this would be a problem. This is something you have to actually get out in the field and observe.

Once you observe it a couple of times you'd realize what is all happening here, where, where your eyes are going again, we can see where the top of the ramp is. And, and this clearly at the time I was out there, which was in the five, between five and six o'clock, I saw lots of people that were walking, people stopped me and they thought I was with the city. I, I think it's because I had a collar shirt on and a, a rolling wheel.

STRONG TOWNS

But I asked the, you know, when I told 'em I wasn't with the city, I asked them, you know, is there something you wanted to say or had a concern here? And, and many, they all unloaded and said how dangerous as was how many times they'd almost been hit at this particular intersection. But it's well used by all users because we can see the, the, the wear paths around here.

I'm at the top of the ramp and I'm now looking to my left to see if it is safe for me to go into the intersection and we can begin to see where my line of sight is.

So at, even as somebody on a bicycle or somebody that is walking, I'm not seeing these things. If I am a cyclist and I'm using the sidewalk because Raymond is too high of speed, I don't wanna be in the bike lane because I'm worried about being doored, you know, all of those types of concerns or I'm not as skilled of a cyclist and I'm gonna use the sidewalk to ride.

It's possible even at a red light that you would have that walk sign. There's no push button for this crossing, so there's no reason for somebody to stop or think about that. So I'm gonna see that I can, I've got the walk signal I'm gonna ride, we're increasing the speeds that shortens the distances of stopping.

So people wouldn't see that in that location.

As I got to the other side of the intersection, I stood here and I I would generously say nine outta 10 people did this.

As they pulled up to the intersection, they pulled around and because of the sight lines as, as what dean had shared, what is happening is that not only do you need to see past the trees that Dean had pointed out, there's that ambiguous parking bicycle lane that either has a parked car in it or has somebody turning in that lane. So there's always a vehicle at that corner.

STRONG TOWNS

There's the high speed and I saw people pass in that right turn lane when I was out there. I, I'm sure this was not just the one-off, but the speeds. So when folks, and, and I loved how Joshua described this as unintentional blindness, this location, I am looking left here and I have to get out almost to about this point in the intersection to get a clear line of sight to make my move out or I'm gonna use this ambiguous lane as an acceleration lane to get out. So my mind at speed and when I think about the reactionary times, knowing as most of these residents I think are aware that just because it's posted a certain speed doesn't actually mean people drive that they're gonna drive what they're comfortable.

There's a lot of local folks, they're trying to get through the one straight street, something that's super wide.

My inclination would be at these intersections to have that speed moving forward.

The thing that we need to talk about is that pulling up to an intersection at a slow speed and hitting a cyclist, we know that that would have a very low risk of fatality.

The fact that the driver was at such a speed and didn't actually realize that they had, that somebody was in the intersection until they physically hit the vehicle and it resulted in a fatality.

One would have to assume that it wasn't just vehicle size, it was also vehicle speed.

And what I observed here time and time again are cars pulling out and that intersection into that crosswalk not knowing that there could be somebody because of the visual obstructions.

So you have to actually really get all the way up to the intersection to look left and here's somebody that is using that as a left, there's a right turn lane.

STRONG TOWNS

So not only do we have the trees that Dean talked about, we have parked cars, we have a travel lane, which is all the way out here. We have cars that are pulling out and if I think I need to get in a road of a high speed condition, this is what's happening in those areas. So I, I saw a lot of well-intentioned improvements at that intersection, but they have led to some compounding contributing factors, making it hard for drivers to see and navigate the intersection safely.

Making it very difficult for non vehicle users, pedestrians and cyclists at that intersection because they cannot be seen and they also cannot see. And then because of the speeds and the conditions out on Raymond, we are now making different decisions in our mind about how fast we need to get to these intersections because I need to get up to that speed. And through the, the light cycle, when I pressed the button to cross Raymond, it was a 24 second countdown and the lights turned really quickly and, and you know, when a car would pull up, I never saw more than about three or four cars stacked on prairie. They're, they're, they're rotating through these all very quickly.

So I didn't see that as like people are speeding through the intersection because it's a really long light. I think it's frankly a short light. But all of these things, if I'm at this intersection and I'm looking left to pull out to make our dedicated right turn lane, I am not looking to my right where a pedestrian would be and I have no awareness of it because of some the obstructions.

Tony Harris: Great. Thank you Edward for walking us through that and using your photos to kind of guide that was really informative.

Any other thoughts on factors before we move to recommendations?

Okay, great. Dean, if we could come back to you just your thoughts on recommendations or ideas to improve the safety and security of this intersection and the surrounding area for road users.

STRONG TOWNS

Dean Chamberlain: Yeah, so I like to think about things that could happen quickly and things that probably need some more time to, to develop and maybe higher costs. And I know don't wanna steal Edwards Thunder, I think he has some thoughts about maybe some lower cost type things to, to consider out here. But I'll just point out that one of 'em that could happen, you know, essentially tomorrow is posting signs for no turn on red and that just, if people are following that, that eliminates the need to creep out and look for people going left or coming from the left. I mean assuming, you know, a, a vast majority of people will obey that sign.

I think that's something that could immediately be done to increase safety there.

Oh, I think however longer term Raymond needs to be re-envisioned essentially the four lane divided essentially arterial street going right through the middle of the residential area.

The context doesn't fit. It's a highway in the middle of a neighborhood essentially and it is, it's even a highway that doesn't have highway volumes of traffic too. So that contributes compounds on top of the factors that we're seeing here.

So yeah, and I think the process of finding out what the solution is needs to involve the community and the awesome people that are on this panel today and and who they represent have some, you know, ideas of what could work here. You know, something could be like to put a roundabout at this intersection because then you're slowing everything down a single lane roundabout allows, you know, people aren't gonna be coming into that intersection at up to 70 miles per hour, which I know somebody was clocked at, you know, when I think Josh, you were doing your speed study, you know, everybody's gonna have to negotiate that at say 15 or 20 miles per hour then.

So that's just an idea of something that could be deployed out there as a longer term solution.

STRONG TOWNS

Some other longer term things could be like raising crosswalks and whatnot to kind of force people also to slow down to negotiate those, to provide that. Like right now there's really no vertical elements at all to Raymond Road apart from a small hill that is also contributing to visibility issues, but really that's not gonna slow people down along Raymond. So providing, providing those types of facility upgrades would be really helpful.

I would say that, you know, things like, you know, more speed enforcement and stuff like that are probably not going to help too much. I mean it'll help one the police officers out there pulling people over, but police officers can't pull people over 24 7 on all of the streets in Madison that have the same problem. You know, that kind of thing. So I don't believe in Wisconsin the automated red light or speed enforcement is allowed.

If you know the city is interested in pursuing that, we'll say advocacy to, for the state legislature to change, that might be a next step too for the city to pursue something like that for the future. Obviously that wouldn't change tomorrow by any means, but that would be another thing to, as a kind more programmatic type improvement that would take a long time probably to get through that.

Those are just some, some thoughts that I have here. Well, and again, you know, related to the visibility things too, I think most the, the biggest thing we need to address is the speed happening out here and the momentum of, you know, vehicles as well, but even for like smaller type interventions, the trimming the tree branches like has been alluded to in a few different times now. You can do that tomorrow, get somebody out there and do that tomorrow.

Yeah, just cleaning up, cleaning up how people can see around all those corners is something that needs, that needs to happen soon, but it's not the only, you know, thing that needs to happen out on this corridor.

I'll leave it at that. Thank you.



Tony Harris: Yeah, thank you Dean. Much appreciated. Alex, maybe we could come to you next on your thoughts about like recommendations and what, what could change in this area?

Alex Thomason: Sure. So I, I don't think that this intersection is unique, right? So the ra the Prairie Road North South Road exists maybe a dozen different instances along Raymond.

It's just that Prairie has a light, it has the bike box, it has, you know, it, it's been upgraded and been a point of focus I think for the city to sort of try out different interventions and, and see if we can make these intersections a bit better.

But I live on the street one block to the east and it's the same thing. Copy paste, maybe it's 15 years behind, it doesn't have a light, doesn't have a bike box.

And so I, I think what Dean was saying about a complete redesign of the road is gonna have to be the solution. They're not gonna be able to put in a light on every intersection on that road. They're not gonna be able to do every, the same intervention, intervention on every intersection.

And so that is gonna require some sort of re-imagination of what that road is. Is it a road, is it a highway? I I think one thing that hasn't been brought up so far that it's sort of, it's sort of a hidden issue.

Raymond Road is a designated truck route and so with that designation there are limited interventions that can be done specifically related to lane width. So for a truck route you can't have, and I don't know if it's under 11 feet or under 10 feet, but there are certain restrictions that cities cannot change the language. And so there are things like that but I I, I do agree that an entire redesign or re rethinking of that road is gonna be required. We, we can throw as many interventions as we want at it, but it's gonna be the same type of road.



Tony Harris: Great, thank you Alex. Yeah, that's helpful to know that it is a designated truck route. Josh, could we come to you next on recommendations?

Josh Olson: Sure, yeah, I think one thing, and let me see if I can share my screen here.

So I'm, I'm looking at this road to me, especially the way that Edward highlighted the lanes, it almost people act like it's a slip lane rather than an actual stop. So I would be curious to see what would happen if we just transitioned to a single lane. But another thing that I saw that was more effective, I think for further up the street there's another intersection on Raymond, it's like several blocks ahead where there is a school, they have like a beacon with lights for pedestrians across, I think when school is in session they put a crosswalk sign in the middle of the road, very temporary. I think it's only out there when they got crossing guards that slows down.

Cars having a minor obstacle that's kind of in between the lanes significantly slows down those vehicles, at least when I'm close by and I have the feedback from, there is a radar detector that will show you the, the speed as well. When that little cone thing that says yield to pedestrians, it's state law is out there, most cars are at 30 or below. When it's not out there, most cars are 35 or, and and they're passing me 'cause I'm going the 30 miles per hour at the speed limit just to get a sense of how many people are going past.

So I think there are very cheap solutions that we could try and introduce to get people to slow down.

There are considerations with the facts like trucks or kind of hard to see here, but right in this area to the right of this black Toyota is a bus stop. So there is a metro bus that is moving into this lane to pick passengers up.

STRONG TOWNS

But I also wanna highlight Wednesday night I ran into some police officers that were doing enforcement.

They told me they caught someone going 68. So my 73, while an outlier is not an outlier in the context of the street, in addition to that, you know, it, it's expensive for them to do this. They've only done it a couple nights in the last month.

I showed them my speed data and one of 'em laughed and it's like, that could get me my traffic tickets for the day.

It's, it's considerably it's happening often enough that long-term, we definitely need to be looking at slowing down this road as well as trying to get rid of these cars that are scooting forward. So.

Tony Harris: Great. Thank you. Very helpful. Edward?

Edward Erfurt: Yeah, I wanna reinforce everybody's thoughts on this too. And, and I'm probably gonna jump, normally I start small and go big. Maybe I'll go big and go small.

I, I know that Nolan is, you know, the, the great planner is from Madison and is admired by many folks there. I think the folks in Madison need to be introduced to another planner and landscape architect named Olmsted who did a lot of work in and around Chicago. When I look at Raymond Road, I think long term, there's no reason why this can't be a two-lane road. If I look at the Olmsted designs, Olmsted, you know, here I'm a geeky architect planner, but those designs would take medians and, and change the shape. They'd be different shapes. So cars couldn't actually drive straight. There were natural curves in the neighborhoods where this has been done in around Chicago, down in Charlotte and these sorts of places, property values go up the area for stormwater and landscaping increases the amount of impervious area decrease.

STRONG TOWNS

We, the engineers would say that we channelize it, but we make it so there's no guessing of where you would go on these sorts of roads because the design would be built to that. And I, I think a really progressive city like Madison could be looking at a bigger median, a landscape median in this location, widening that out. You still need the driveway access on the side to the residential houses.

You probably need to make some choices of whether or not there's on street parking and bicycling or, and how those get separated or detangled in these areas. But I, I would really look at that long range so that by design, no vehicle can exceed 25 miles per hour on this particular roadway.

When we talk about truck traffic, trucks actually are far more efficient when they're able to go at that slower speed constantly. It's when they have to come to a full stop and break, that's when the idling occurs. That's where it takes a lot of gas and, and carbon to get them up to speed and that adds to other, other issues. So it's the same occurs with the buses, so getting everybody to that particular lower speed by design.

So that for me, I'm thinking that in like big picture and in these locations it may be on these streets that the city moves away from the traffic lights and, and to operational things where lower volume or the slower speeds as more understanding of where things are going. And Madison is no stranger to the idea of roundabouts, but there's also other turning type features that could be added that separate that stuff out.

As I look at the intersection, if I was to improve the lighting, the switch box needs to move or you need to provide more of a clear space. They're also as I, I really like the idea of what Josh described of putting the sign in the middle of the road of, of pedestrians that they do at the school. This is an intersection if you really looked at all the extra asphalt at this particular intersection, putting a signal in the middle of it, something that was more familiar I think, and we think of European cities, but people are doing this in the states where you'd have the signal



in the intersection so that we can get driver's eyes to where we need them in those particular intersections.

As we look at Prairie Road, I am challenged with the need and the warrant for the dedicated right turn lane.

And when I look at the prioritization of throughput versus safety, the, like I said, the timing of this light, worst case scenario, it's 15 more seconds on your day at this intersection.

Worst case scenario, we save lives because we've cut 15 seconds, we, we've added 15 seconds to somebody's commute in a residential neighborhood.

So getting rid of that right turn lane and going to what could be done today with that, I think going today out there with cones and paint that doing some experiments in not only, not only on just Prairie, let me show you, but I also think this is something that needs to be looked at.

Not only is it the removal of this dedicated right turn lane, so the no right on red is, is excellent. Putting a car that is doing a through movement or left movement at this location works really well. It's a really lot of asphalt in here. So that by natural features, cars will get into the intersection and loosen up that. So again, a few second delay moving out. But even on Raymond's in these areas that there's to be no parking, those really need to have curb extensions in those locations.

I saw recently in Denver where they're using rubber curbs and white delineator sticks.

I looked at the Google maps when they did the repaving of this road a few years ago. You'll see they did the maintenance of travel with cones and they went down to one lane, repeat that and do that at this intersection. These are things that could be done immediately tomorrow with cones and paint. When we talk about the, so that would allow, well one, it would get the cars in

STRONG TOWNS

the lanes that they're supposed to be in. It would control from driver behavior. They would have some more physical constraints of what they could do. So they're less likely to do the unthinkable and crazy at the intersection. It also pull where the pedestrian is from behind the box out to a visible location.

It would narrow the area that a pedestrian would have to cross the street so there's less time, instead of being in front of potentially four cars at one time in this intersection, you'd be only exposed to a passing of two cars.

So again, looking at those pieces but more, more awareness of that. And I, I think when we talk about strong towns, what is the highest level of public invest engagement that we can do? Where's the highest level of collaboration at a city level?

I don't think that this is something that requires the city to do a big planning effort. I don't think this is setting up something that city hall on a Tuesday night to talk about. I think a Saturday afternoon or Friday afternoon putting cones out there with city staff for four hours or a local conversation or one of the bike advocacy groups in the city to go out there and put cones out there to see where that curve could be in the narrowing of lanes. And observing that for the limited time I was out there, lots of residents were engaged at this intersection. We have folks on this, on this panel that represent those neighborhoods that are asking for change by doing it on the ground, real life with temporary things we can actually observe driver behavior but also get engagement with the folks that actually use this intersection.

Not just the folks that might be available on a Tuesday night to get there. And frankly the purchasing of cones is what the city would probably have to pay for for advertising to get people to a public meeting. So very, very low cost rapid response of that at this location.

I also want to be sure in recommendations that two additional things happen here.

STRONG TOWNS

I think whenever there is a serious crash at a location, not just here in Madison, but anywhere like this, anywhere there is an increase of, of community complaints at a location.

I think that the engineer, the planner and the police officers of that area or the police chief need to spend at least 30 minutes at an intersection like I did.

You will see what's happening and I stood behind things so people didn't see I was observing them, but we need to observe how people actually use the space. And it seems quite silly, but this is the easiest thing that municipal staff could do to get an enormous amount of feedback that can influence not only this intersection but every other project they do at this city.

The other piece that I would strongly recommend, as we've seen in other cities like Cincinnati and Indianapolis, I think a city like Madison that's way more progressive than those cities could do this even better and more quickly. But appointing a rapid response team when there is a fatality or serious crash or high level of citizen complaints with a kit of parts like cones and delineating your sticks to go out to actually physically make changes at an intersection with the things you would keep in the back of a pickup truck.

We do this all the time in cities when pipes break, when we do repaving, like I said, you can go to the Google images and go back a couple of years and see where they did this on Raymond Street and, and it functioned well, you know, it didn't, the world didn't end because they continued to work on that road.

But having that team available and that's like a three or four person team that's empowered to take and engage in that effort and by doing those things at, at this intersection. Much like what we did here, I think, and I can speak from experience, I think that you could do this very rapidly in the field with your city staff and again, this would be responsive to the most horrific events within our community.

STRONG TOWNS

Tony Harris: Thank you Edward. That was very, yeah, very helpful to think about with regards to rapid response teams and maybe potentially even walk audits.

Yeah, really helpful. Okay, anything else with regards to regards recommendations from our panel

Dean Chamberlain: And just a quick chime in and to support Edward's idea of getting rid of that right turn lane.

Just rule of thumb kind of numbers traffic analysis that I've just doing right now, you know, in a peak hour, like so you know, the busiest hour of the day, a Prairie Road likely only has two or three vehicles approaching that intersection in a minute.

I guess that cycle length here is probably about 90 seconds. You're at like four or five vehicles that are approaching us. This is the busiest time of the day.

There is absolutely no need for a separate turn lane and really any reason, we'll just say that four or five vehicles could easily get through in whatever cycle length they're running at the traffic signal.

So I just wanted to throw that out in support of your idea there. Edward

Edward Erfurt: And, and Alex, this supports your gut intuition that this, that Raymond Street is a stroad.

A stroad is a street road hybrid.

STRONG TOWNS

So when we talk about Raymond Street, Raymond Street, the characteristics of the development adjacent to it and the way people use it that live around it is where we would expect engagement of people.

So much like you would see on a, instead of having like on a commercial main street where you're expecting commerce to occur here you actually have human interaction, you have neighbors walking to neighbors, you have neighborhood groups and parks and schools on different sides of the street. You would expect a high level of that interaction of folks. The city's also making the statement that cycling is important. And when I met out there, everybody in the local conversation group that met me there, all but one road bikes. So, and they, they weren't like the thing I would buy like at a Walmart. These are like really fancy commuting level bikes.

So this is something that is people are passionate about.

So we're, we're adding them to this, this intersection expecting multiple users to use it, expecting people to go slow, having people crossing the street. There's lots of intersections that is a street.

The characteristics of the wider asphalt, the straightness of this, the limited amount of stop signals on the location is characteristic of a road where we would wanna go high speed with little resistance between locations.

I think the frus- the things I'm seeing that is resulting of frustrations from drivers and the symptoms is like at the school having to put something up over the road to tell people they're going too fast.

The natural behavior of people driving on this road is to exceed speed. That's because they're driving to the design conditions, not the posted speed.

STRONG TOWNS

The idea that we're layering over that there's a truck route here, again, we're thinking about that, the high speed to it through it. When people get to this intersection and they wanna pass on the right and they wanna speed through it and they want to gun through the yellow light, it's because they think that this is a road of high speed, they become highly frustrated. They have to stop for people and there's, there's lots of those pieces. So although this is not an ugly stroad, this is a stroad. And I think the things that this panel is describing is that from a, a community-wide voice, you all are saying that this should be a street, that it should be prioritized so it's safe for all users and that you will accommodate pedestrians, cyclists at automobiles equally on that street.

When you say that that helps influence the designers so they're not jumbled between these two things and they're in that futon of transportation that we call a stroad. So nobody wants their street to be called a stroad. Nobody wants that in their neighborhood because we normally show ugly pictures of that.

This is a beautiful road, but it, it has been designed and engineered out as a street and really thinking about this as a beautiful street for all users, well, I think will help shift that mindset.

Tony Harris: Well stated. Anything additional before we move into our closing section,

Josh Olson: Tony, would now be an appropriate time for me to do my call or summary to Madisonians?

Tony Harris: Yeah, I think that would be great.

Josh Olson: Okay, awesome. So just to, this is like for either the city officials that are watching this or my neighbors basically anyone who wants to make a difference here. I think first thing in

STRONG TOWNS

terms of stuff we can do for this specific intersection, I think tomorrow we could trim those trees. We could try cones, we could probably put a sign up for no right on red.

I think long term in like the next couple months or year. I think depending on how that cone experiment goes, we could be looking at making this a single lane on prairie and then I think long-term, several years doing what's in accordance with Vision Zero in complete Streets, looking at slowing down. Raymond, I think also in addition to this, there's the Southeast or yeah, Southwest area plan. We're the next ones. So that's a great time to kind of bring this up and say like, Raymond is for the neighborhood, let's slow this down, kind of outside of this specific intersection. I think this was an very enlightening process.

Me going out there with a radar gun and thank you strong towns for providing that.

I am loaning it out to everyone that's in our local conversation to find other areas that either have had fatalities or people are saying it's bound to happen. So can we identify those places? Can we do analyses like this every time there is a fatality? And kind of work on coming up with those recommendations And then also being a little bit reactive rather than, or sorry, proactive rather than reactive. We are reacting to this fatality.

This is not the only intersection that this is gonna happen. Like Alex said, I can point to three others along Raymond Road.

Can we be fixing those based on these recommendations we have today so that there's kind of a, an enduring impact from this. We aren't just fixing one area. We are rinse, repeating and doing this across the city. So that's my, for everyone in Madison, like I think this is a great thing that we should repeat on our own. But yeah, those are my closing statements and kind of call to action for us.

Tony Harris: Absolutely. I really appreciate you putting that out into our shared space.



100%. Great. Okay, I'm gonna take us into our closing.

So I just wanna offer a few acknowledgements. I'm gonna share my screen one more time and you know, I'd like to say thank you first and foremost to our panelists. So Josh, Edward, Dean, Alex, thank you all for taking the time to join us today and to gather information, review everything that we've been kind of going over up until this point.

And I wanna give a special shout out to Josh and his colleagues and friends, people that have helped out with, you know, gathering resources, doing things like a speed study, getting photos. All of it takes time and effort and can be a lot to coordinate. So we really appreciate that work. I wanna say thank you to our other community members who have helped out over the past several weeks, couple of months, and to those who showed up today, including I think some news representatives and maybe even some local leaders or elected officials perhaps. Thank you all very much for again taking time out of your day to join us.

I'd like to thank our sponsor for this event and anonymous donor and also thank Strong Town staff team for their assistance as we've been preparing 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). And our next virtual studio session will take place on August 16th and you'll be able to find more information about that on our website as well.

Also on our site, you can find 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 where you live to either co-host an in-person studio or give a talk about transportation, you can fill out an inquiry form through our website as well.

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