

A nighttime photograph of a city street intersection. The scene is illuminated by streetlights and traffic signals. A line of cars is visible on the left side of the road, and a few cars are moving through the intersection. The background shows city buildings and more streetlights.

**IMPROVING POST-EVENT
TRAFFIC FLOW**

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How a university vastly improved its post-game traffic flow through open communication between departments, a little data, and a lot of thought.

By Jennifer I. Tougas, CAPP, PhD

IT'S A COOL FEBRUARY NIGHT and Western Kentucky University (WKU) is hosting Louisiana Tech in an end-of-season men's basketball game to determine placement in the upcoming Conference USA tournament. This season marks the first for activating the university's Emergency Operations Center in support of basketball games. This allows facilities management, WKU Police, our campus meteorologist, and parking & transportation services to monitor the game and respond to any issues. There's a vocal, attentive crowd here to cheer on the Tops, but I'm here to watch the traffic on the myriad of camera views on my laptop.

Basketball and event operations are surprisingly similar. Each requires a team of players with expertise and skill at their assigned role, and teamwork and communication are essential to success. Back before the basketball season started, we sat down with leadership from the athletics department, the Hilltopper Athletic Foundation, and the WKU Police Department to find a better way to exit traffic from Parking Structure 2. Thanks to funding through student fees, Parking Structure 2 (PS2) opened in 2005 to the delight of commuting students who enjoyed parking in the heart of campus across from the Downing Student Union. PS2 also strategically sits between Houchens L.T. Smith Stadium and E.A. Diddle Arena and provides prime donor parking during football and basketball seasons.

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The Scenario

You couldn't ask for more convenient parking, but the exiting traffic experience left something to be desired. PS2 is a three-bay, precast deck with a central bay for two-way traffic and one-way traffic on either side. The deck circulates traffic up on the stadium side and down on the arena side. Two entrance and two exit lanes span the short distance between the structure and University Boulevard, a four-lane highway that averages 20,000 vehicles per weekday.

Even with the assistance of WKU PD following the game, alternating between event traffic and highway traffic meant the last car would trickle out of the structure close to an hour after the game ended. This led to more than one email to athletics expressing frustration for sitting in a traffic jam following each ball game. There had to be a better way.

Working Together

Just as in basketball, it takes time for teams to gel. I've been at WKU for more than 15 years now and have worked with this team for just as long. We have an excellent working relationship and are able to have candid conversations when things go wrong and celebrate successes when things go right. We have the same goal in mind and trust each other to work towards those goals.

As the event operations in Parking & Transportation Services has grown during the past five years or so, we've kept focus on our goal of improving customer service and making the most of every opportunity to leave a good impression of campus for our guests. We reflect after each event and learn from our experiences.

This semester, I've been working with a professor and a student whose senior project is using software to model our event traffic. He is sitting with us tonight in the EOC and witnessing the traffic firsthand. It's halftime, and Louisiana Tech has been leading the whole game.

At WKU, we've had some rather unusual challenges that have forced us—and even given us permission—to think creatively about how to use our resources to be successful. The Great American Eclipse traveled straight over our campus on the first day of classes in 2017. We hosted nearly 5,000 children who were bused to campus to watch the eclipse from our stadium. We closed our central campus road and used it as a bus parking lot—a strategy we've used several times when we host our "Spread the Red" Lady Topper education game.

We have a good team that works well together, that is willing to try new things, and has a common goal in mind: to improve post-game traffic flow. While we're focusing on Parking Structure 2, we have to keep in mind Parking Structure 1 which sits on the other side of E.A. Diddle Arena and also provides donor and public parking for the games. Tonight, we have 400 vehicles in PS1 and 500 vehicles in PS2.

The Strategy

Our overall strategy is to force traffic away from the event center to move it as quickly as possible. Parking Structure 1 sits to the north of Diddle Arena. We closed the southern entrance and forced all traffic away from the arena north onto College Heights Blvd. Parking Structure 2 sits to the south of Diddle Arena, so we wanted to send the traffic south, but we didn't want to use the highway because that takes too long. PD had a suggestion: Could we remove the bollards on the first floor to send the traffic down the sidewalk to the Avenue of Champions? We would lose a few Hilltopper Athletic Foundation (HAF)-donor parking spaces in the process, but PD wouldn't have to work the highway and traffic could free-flow down the Avenue to the traffic light. It was worth a try.

It's 8:56 PM and there are two minutes left in the game. WKU is down by 12 points, and there is a steady stream of cars leaving PS2. One hundred fifty cars have already left early and WKU PD called to traffic control.



Athletics took the lead announcing the new traffic flow to the HAF permit holders at the start of the season, so they weren't surprised to see some extra spaces blocked off or a detour following the game. At the first exhibition game, I was excited to see the plan worked well as a whole, but the traffic light on the Avenue of Champions took too long and traffic backed up to the stadium. It still took 45 minutes to get all the traffic off campus. We needed to make another adjustment.

9:14 p.m. WKU has tied the game with 2.5 seconds left on the clock. The remaining crowd is rocking the arena! Looks like we're headed to overtime!

I reached out to my contacts at the local Kentucky Transportation District 3 Office for help. By December, they delivered. They provided a means for us to control the timing of the traffic light to give our event traffic a long green phase. Instead of having three officers standing in the highway, we had one officer off the road at the traffic control box. A few other minor adjustments, and by the end of the season, we've managed to cut our exiting traffic time by half. We routinely wrap up our post-event traffic 30 minutes after the game has ends, even if, like tonight, we have a full arena.

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In addition to decreased congestion, there have been other advantages to this traffic plan. We've improved the customer experience. We've improved safety of event personnel by keeping them off a four-lane highway. We've improved the shuttle service as they benefit from the traffic flow on the Avenue. We've decreased carbon emissions by half. We've reduced costs associated with traffic control.

9:37PM. WKU wins in overtime: 95-91! This is one of greatest comebacks on this court in school history and we feel sorry for the crowd who left early. Time to watch the traffic. ♦



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