

City Council of Peachtree City
Meeting Minutes
Tuesday, February 2, 2021
6:30 p.m.

The City Council of Peachtree City met in workshop session on Tuesday, February 2, 2021. In the absence of Mayor Vanessa Fleisch, Mayor Pro Tem Terry Ernst called the meeting to order at 6:30 p.m. Others attending: Mike King, Kevin Madden, and Phil Prebor.

City Engineer Dave Borkowski introduced Alan Davis with the Georgia Department of Transportation (GDOT) to give an overview of the connected vehicle program (CV1K), which was an emerging technology. Davis said it involved vehicles talking to infrastructure, infrastructure talking to vehicles, and vehicles talking to vehicles via a protected spectrum, dedicated for this purpose by the Federal Communications Commission (FCC) since 1999. As an example of how it worked, Davis said a car four cars in front of yours could slam on its brakes and the technology in your vehicle would pick up on that. Vehicles would all be equipped with this technology in a few years.

In 2017, GDOT, as part of a national push, started bringing this technology to intersections in Atlanta, with great success. They planned to expand it throughout the region. ARC then created the CV1K program with federal aid with the goal of outfitting more than 1,000 intersections in the region. There would be a roadside unit (RSU) radio at each of those intersections to send messages between the infrastructure and suitably equipped vehicles and also receive them from vehicles. For instance, if an airbag was deployed, that message would be sent out, and first responders could be dispatched to the incident.

The program was federally put forward with a local match. Currently, 600 intersections have been equipped with this technology, Davis continued. Cobb and Gwinnett counties, along with the City of Johns Creek were among the jurisdictions participating.

Davis said he wanted to give Council an idea of what it could mean to Peachtree City. GDOT was the administrative sponsor, which meant they did the paperwork. ARC provided regional oversight. The cost share was 80/20, with 80% being federal aid, and 20% being local match. The average cost to equip an intersection was about \$8,300 total, making the match for a local agency about \$1,600 per intersection.

What they would do was install an RSU at a traffic signal. Vehicles would have the same type of radio, either installed after-market or factory-installed. Automakers were making plans to incorporate them in future model years.

Initially, the public safety fleet was an ideal target. When an emergency vehicle was in response mode, it could send a message to a traffic signal asking for a green light. A related function was called transit signal priority. A bus that was running behind schedule, for instance, could send a message asking to get through a signal a little faster. The ATL in Atlanta had used this on one of their busiest routes. The system could also alert vehicles to the presence of pedestrians in crosswalks.

How could Peachtree City get involved, if Council desired? First, it would require the 20% match. While the goal this year was 1,000 intersections, the ARC had targeted funding for future years, so this was something Council could consider. GDOT was continuing to invest on a statewide level because it believed in its potential for safety and mobility. GDOT was one of the leaders in the country in initiating this program, and its partnership with the ARC was a great success story, Davis went on.

The next step would be a simple agreement between GDOT and the City to enable the authorization of federal aid. GDOT would work with the City to determine where and how they wanted the devices deployed. They were looking at roughly 10 months from the time they got notice to proceed until the intersection was released to the City. Right now, there was a delay in the lead time on equipment, but that should become more efficient.

Davis said he felt that in terms of schedule and cost, this was a pretty good deal. It was a quick way to introduce something that would drive the future and geared towards personal safety and mobility. He gave Council both his and the ARC's Maria Roell's email addresses. He said it had been fascinating to see how they were rolling this out in the region and were excited to see local governments come on board.

Roell added that Peachtree City did not have to join in immediately, but could be involved in the planning work.

King asked what would be the additional cost of purchasing a vehicle with this new equipment? Davis noted that in 2015, the National Highway Traffic Safety Administration (NHTSA) said they would mandate this in new vehicles. That regulation had stalled, but was still on the books. This would just be another safety feature. Davis said he didn't know exactly what the cost would be, but manufacturers of the equipment said it was about \$30 for a chip that went into the vehicle's onboard computer. The after-market version was about \$800.

Could this be viewed as a way of controlling traffic through speed? King asked.

Ernst mentioned some of the safety features in cars now, and said this was just another.

People bought new cars every eight or nine years, King reflected, so it would take awhile to get to 100% participation.

Davis said there was probably a critical mass where 30% of the fleet equaled maximum safety. Also, he continued, the automakers were interested in an app called red light violation warning. If you were approaching an intersection and had a green light, and the radio picked up a car on a side street that was going too fast to stop, they wanted to install a system that would alert the driver of the danger. Some automakers were looking at stopping the vehicle, where others were leaning towards a warning. The agency would be handing the information to the automakers, who would decide what should be done with it.

City Manager Jon Rorie noted that it was easy to see the benefit of traffic preemption for public safety and the awareness when making right turns for pedestrian safety, but how would this benefit the average person? He said he had a 2019 vehicle, so he would have to upgrade to take advantage of it anyhow. What would it do for him?

Davis said he saw the vehicle to vehicle side of it as the major advantage.

Rorie wanted to know if GDOT could communicate with the signals, such as controlling the timing, and Davis said they could, but would not do it without approval from the local governments. There was a high ceiling of potential for what could be done. The traffic signals were timed for a certain speed, and it would be useful to communicate what that speed was. For example, the optimal speed on SR 54 might be 45 mph, but the way traffic was queued up, it might be that 42 mph was the speed needed to hit every green light. That was one way this technology could communicate useful information.

Rorie asked Police Lt. Chris Hyatt his opinion. He said it was beneficial to get any type of real time data, but it was a tossup as to who it benefited more, the citizens or the responders. Rorie pondered what if the only value was the benefit of green lights to emergency responders? Borkowski said they were looking at 11 intersections—every signal on SR 54. He did not recall how many signals there were on SR 74.

If the number was 100, King noted, they were talking about \$166,000. Of course, not all would be in Peachtree City. He said that, to him, that would be a very cheap price to get quicker response for emergency vehicles or some semblance of crash avoidance.

For those 11 signals, Borkowski said the City's share would be just under \$19,000. It was \$1,000 for the equipment for each vehicle. That's where the cost would be, Rorie mused, not at the intersections. Davis interjected that both ARC and GDOT were eager to support fleet projects. Roell said they did not have a concrete program as of yet, but would like to help on that front. GDOT had a federal grant for 1,000 radios for vehicles, and 120 of them had been claimed.

The total cost for 11 intersections, including the federal cost, would be about \$100,000, Borkowski said. Davis noted that every 20 cents that the City spent would get them 80 cents of federal aid. Roell said the City would pay GDOT their share, then get the federal money.

Rorie noted that the federal money was being routed through the ARC to fund 1,000 of these intersections. Fayette County sent the ARC about \$100,000 a year. They would get \$80,000 if they put up \$20,000 to get advanced technology that could be expanded in the future and also for a fleet management program that had 1,000 radios with 120 claimed. The worst case scenario for Peachtree City would be \$120,000 if they had to buy all the radios for their fleet. This system was expandable and could be modified to do different things. Fire Chief Joe O'Connor said fire truck manufacturers were starting to incorporate this technology into their vehicles, so as they bought trucks in the future, they wouldn't have to keep buying radios.

Ernst asked if the units were transferable from one vehicle to another? Not if they were built in on a new truck, Davis said, but the ones they were working with were transferable.

Would all vehicle manufacturers use the same wavelength? King wondered. He didn't want to spend this money, then have to spend more to replace the system because it was not compatible with anyone else.

Davis said they had two radios. One was called dedicated short range communications and the other was cellular vehicle-to-everything (cellular v2-x). They were both in the project because some fleets wanted one, some the other. Eventually, the market would pick one, and they believed they had a project for whatever eventuality that was. The radio was dedicated from a spectrum perspective with the FCC.

Prebor asked when the decision would be made between the two? Davis replied that it had been an ongoing thing. There was a global component, but all signs pointed to cellular v2-x. Is that what Peachtree City should get? Prebor asked. Davis said he would hedge his bets and get both since they were only \$300 a radio with the local match.

Madden said he was concerned about the life expectancy. Davis said the first ones were turned on in 2018; only two had died, and those were from software issues. They had seen no mechanical

failures. The RSUs were in an environmentally secure box. He estimated their lifespan at five to seven years. Lightning could get them, or, more likely, obsolescence.

Madden confirmed that the system could alert a driver that a pedestrian was in a crosswalk. Davis said that was correct, and there were multiple ways that could work. It would depend on the automaker or what the driver wanted. Automakers would be cautious about what they put in a vehicle to cause it to stop for a pedestrian. But, he went on, they were 20 years into this technology, so he believed we were about to see a proliferation through the market.

Madden said he believed this would be \$120,000 well-spent if it meant accidents could be avoided.

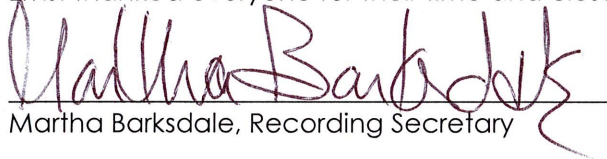
Ernst said they were talking about just 26 square miles in Peachtree City. It was a high price. Was the juice worth the squeeze?

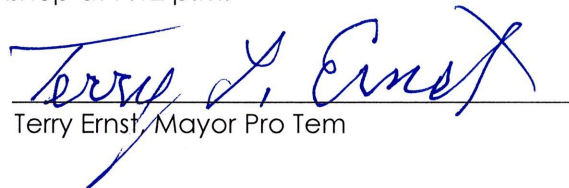
Did we want to be penny-wise and pound foolish? Rorie asked.

King said they needed to read up and study on this before they took action.

Rorie said staff would gather more data and take it one step at a time. They could install the traffic signals without getting the radios for the vehicles, he noted.

Ernst thanked everyone for their time and closed the workshop at 7:12 p.m.


Martha Barksdale, Recording Secretary


Terry Ernst, Mayor Pro Tem