What We’re Doing To Keep You on the move
When you get in your car and head for your destination, you have one goal: getting there quickly and safely. You may not know it but there is a team of traffic planners at the City of Edmond who have the very same objective – getting you to your destination, around the block or across the city, as safely and efficiently as possible.

Our traffic planners are constantly seeking the most innovative, safety conscious and cost-effective solutions to keeping you moving. These solutions, which often involve the latest traffic technology, are not only used to improve existing situations but are also used to facilitate the flow of the anticipated traffic of the future.
TRAFFIC SENSORS

The most widely used solution is traffic sensors which are placed under the pavement at or near intersections. The sensors are wired to the intersection’s signal, and adjust timing of the lights to accommodate the volume of cars in each of the intersection’s lanes.

Traffic sensors add an element of pro-activity to our traffic control system. Often placed three to four-hundred feet before an intersection, they allow traffic signals to anticipate signal timing even before motorists reach the stoplight. The sensors, however, assume that drivers are traveling the legal speed limit – one reason why exceeding the speed limit rarely, if ever, gets us to a final destination any faster.

In addition to seeing full lanes, the sensor system also sees empty lanes. In situations like this, sensors order signals to skip green lights for the empty lanes, allowing traffic in other lanes to pass through the intersection more quickly.

These state-of-the art sensors aren’t just connected to signal lights. Many, particularly at major intersections, are wired directly into a central processing station that translates the real-time data into graphical representations displayed on the computer terminals of our traffic engineering department staff.

This system also allows our staff to run automated signal timing programs for different periods of the day. Numerous studies of traffic volume at our major intersections are conducted routinely. With this data in hand, our traffic planners develop the programs that adjust signal timing throughout the day, making the intersections more efficient and more convenient for motorists – even during the morning and afternoon rush hours. However signal lights can only do so much. Most of our congestion is not related to signal timings, rather the lack of roadway capacity to handle the increased volumes.

Safety plays an enormous role in our traffic planning. While all of us want to get around the city faster, nobody wants to do it at the expense of accidents. Our automated signal timing programs have a built-in all direction red light that stops traffic in all lanes before a green light is given…this practical addition to our signaling program has reduced accidents since its introduction 15 years ago.

Kelly Parkway Street Widening Project
There’s no rocket science behind video detection, although the decreasing price of the technology involved has made it a possibility for cities such as Edmond. In a nutshell, cameras are installed at major intersections and real-time footage is displayed on the monitors of Edmond’s traffic controllers. Unlike traffic sensors, video detection allows controllers to “see” the nature of the congestion problem. Traffic sensors will tell a controller that there is congestion, but video detection tells controllers why there is congestion. Perhaps an emergency response vehicle is superseding the lights at the intersection. Perhaps a stalled car is blocking a lane. Perhaps a fender bender has blocked traffic. Our traffic controllers are trained to respond quickly to these and other occurrences.

Again, we led the way by being the first city in Oklahoma to employ video detection to facilitate traffic flow. The first cameras were installed at 33rd and Broadway in 1997 and since then the project has expanded to four other locations. Installing them in all new signal lights is currently under consideration.

Video detection brings not only safer, more efficient traffic, it reduces costs. Video detection preserves the integrity of roads and streets because they do not have to be ripped up to install or repair sensor wires.

**STREET WIDENING**

Street widening is a time-tested way of accommodating heavy traffic and traffic controllers are not afraid to advocate it when they detect congestion regularly via sensors and cameras. Sometimes it’s just a fact: there isn’t enough space for cars to make it through an intersection in a timely fashion. Traffic planners use a grading system, much like a report card, to gauge the effectiveness of an intersection, with A being excellent through-traffic and F meaning considerable delays for drivers. When an intersection reaches a D, E, or F level – after applying other technology solutions – traffic planners start looking at widening the roads near the intersection and adding much-needed lane space.

In the short term, street widening can be inconvenient for motorists. Many respond to the notion by suggesting that timing for green lights simply be extended to clear the lanes. But this solution only stacks cars up higher in lanes waiting for their own green lights. While it might improve service in one direction at a certain time of day, it will certainly reduce service for motorists crossing the intersection in other lanes at the same time.

It’s also important that residents understand that street widening is not always a viable solution, regardless of the amount of traffic on the street. Sometimes we don’t own the property directly adjacent to the street or road. Sometimes easements are not available to widen the street. Sometimes there is simply no more space left on the sides of the street. Unfortunately, due to the reasons above, we have just...
about reached our capacity for widening streets and roads. It is in these situations that we turn to newer and more innovative technologies to solve our city’s traffic issues.

**SIGNALIZATION**

A newer technology we use falls loosely under the rubric of “signalization.” This is the effort to coordinate traffic signals along traffic corridors, such as along Broadway or Second Street. Signal lights are timed so motorists traveling the speed limit will hit a series of green lights as they move along the corridor, reducing stop-and-go traffic and keeping cars moving during peak travel times. Exceeding the speed limit will almost guarantee that motorists hit red lights throughout the corridor in addition to compromising safety and failing to reach destinations any sooner.

While signalization definitely improves the flow of traffic in key corridors, it’s important that motorists understand that it can’t guarantee them green lights all the way through the corridor. There are outside factors that affect the process, such as driver attentiveness and stalled vehicles. Occasionally sensors fail, but we move as quickly as possible to repair them.

Also, emergency vehicles override signalization to allow them to reach their destinations as soon as possible. As they approach intersections, all directions receive a red light, allowing fire trucks to pass through quickly and safely.

Edmond’s Traffic Planner Tom Minnick explains, “In 1987 Edmond began installing emergency signal light pre-emption at several intersections, giving the fire department the ability to change signals to red while giving their own access through the intersection and reducing response time to emergencies. All signalized intersections in Edmond have this feature.”

**ACCESS MANAGEMENT**

In 1998 we developed the strategy of “Access Management,” a strategy we employ when building new roadways. It provides access to new land developments while simultaneously preserving the flow of traffic on the roads, contributing to safety, capacity, and speed.

A key element of Access Management is the installation of center medians, such as the ones recently constructed on Kelly. Medians promote safety by reducing left-turn collisions. Additionally, they allow us to install street lighting which makes night-driving safer.

**A Recent History of Traffic Projects**

Edmond’s road and traffic improvements are not paid for entirely with city taxes. We balance the need to improve traffic conditions in Edmond with our need to look out for you, the city taxpayer, and reduce costs as much as possible by seeking out alternative funding sources.
“Transportation is about more than asphalt, concrete and steel. Ultimately it is about people. It is about providing people with the opportunity for a safer, happier and more fulfilling life.”

RODNEY SLATER, US Secretary of Transportation, 1999

Another element of Access Management is careful review of site development plans. When proposals for new commercial development are submitted to us, our Site Plan Review Team evaluates the proposal with traffic flow in mind. One item carefully inspected is the parking lots. We do this to promote “on-site” circulation, reducing traffic on roads bordering the development.

BATTERY BACK-UPS

In 2000 we began experimenting with battery back-ups at signalized intersections, and we liked the results. Back-ups protect all of us from traffic signal failure during inclement weather. They keep motorists moving and pedestrians safe during the harsh weather we sometimes see in Oklahoma.

WHAT WE’RE DOING TODAY

In 2006, we continued to grow with 2,500 new citizens choosing Edmond as their home. We also expanded our economy to nearly $1.1 billion. For our Traffic Planning Department, this requires new and innovative ways to facilitate traffic flow throughout our city.

Each year the Traffic Planning Department studies and prioritizes new ways to keep traffic moving smoothly in our city. Two thousand and seven is no different. The department is still prioritizing 2007 projects, but one has already made the top of the list.

Some of the biggest obstacles that our motorists face are railroad crossings. Traffic Planner Tom Minnick comments, “Currently there are 13 railroad crossings in Edmond. Of those, there is one underpass on Edmond Road and one overpass at Waterloo Road. We need more because the remaining 11 are ‘at-grade’ (street level) crossings that can cause significant delays and congestion for motorists. Adding another underpass will decrease delays not only for drivers but for emergency response units, as well.” After ten years of preparation, Edmond is planning a railroad underpass at Covell Road. Construction is slated to begin this winter.

with city taxes. Over the last fifteen years, we have received $47 conditions in Edmond with our need to look out for you, the city alternative funding sources.

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Traffic & Transportation Projects

COVELL ROAD, THOMAS TO BROADWAY
This project will widen Covell to a four lane divided roadway with sidewalks and bike paths. This project will also eliminate the at grade crossing with the railroad tracks. Covell will pass under the railroad tracks. This project is part of the 2000 Sales Tax Improvements. The estimated construction cost is $3,607,718. The funding split will be 80% Federal Funds and 20% City Funds. The anticipated start date is fall of 2007.

15TH AND COLTRANE
This project will add a signal light to the intersection. The estimated construction cost is $100,000 and will be funded with 100% federal funds. The anticipated start date is summer of 2007.

EMERGENCY SIGNAL PREEMPTION
This project will upgrade the existing signal preemption equipment at signalized intersections throughout Edmond. The estimated cost is $300,000 and will be funded with 100% federal funds. The anticipated start date is summer of 2007.

COVELL ROAD, THOMAS TO BROADWAY
This project will widen Covell to a four lane divided roadway with sidewalks and bike paths. This project will also eliminate the at grade crossing with the railroad tracks. Covell will pass under the railroad tracks. This project is part of the 2000 Sales Tax Improvements. The estimated construction cost is $3,607,718. The funding split will be 80% Federal Funds and 20% City Funds. The anticipated start date is fall of 2007.

INTERSECTIONS AT VISTA AND BRADBURY
This project will widen 2nd Street to add turn lanes and Traffic Signals at Vista and Bradbury. This project is part of the 2000 Sales Tax Improvements. The estimated construction cost is $820,000. The funding will be 100% City Funds. The anticipated start date is spring of 2007.

KELLY, COFFEE CREEK TO WATERLOO
This is an Oklahoma County sponsored project that will widen Kelly to a four-lane divided roadway with left turn lanes at all side streets. A signal light will be constructed at the intersections of Coffee Creek, Mesa Trail (Cross-timbers Elementary School), and Sorghum Mill Road. The project will also include street lighting and landscaping. The estimated construction cost is $7,000,000. The funding will be 80% federal funds and 20% city funds. The anticipated start date is currently unknown.

BRYANT AVENUE BRIDGE REPLACEMENT
This project will replace the existing bridge with a four lane bridge with sidewalks on both sides of the bridge. This will be paid for with 1996 Sales Tax receipts.
We often get calls about railroad track crossings. These crossings and the adjacent property are owned by Burlington Northern Santa Fe Railroad and it is their responsibility to maintain the crossings. While we cannot do anything to change or improve them, we stay in regular contact with the railroad and pass your concerns on to them.

Also this year, we’ll be moving towards Intelligent Traffic Systems, which primarily involves real-time traffic monitoring on our website. Eventually, our hope is for citizens to be able to visit our website – day or night – and evaluate traffic conditions for yourself. Our goal is to give you power over traffic conditions, the power to plan your own routes, and the power to reach your destinations quickly and safely.

According to Minnick, “This is an inexpensive solution that could yield big reductions in congestion. The information is here. It’s just a matter of centralizing it and publishing it to the Web. It’s a ways down the line, but we’re working on disseminating important information about travel conditions to motorists with the Internet and handheld devices that are becoming more standard in newer vehicles.”

Our Police Department provides the Traffic Planning Department with all accident reports. The statistics these reports provide are constantly monitored, always keeping an eye out for accident-prone intersections. In 2006 we reduced the number of accidents at the top three accident locations of 2005. This is a regular, ongoing process for us, one of the most important services we provide our residents. It will continue in 2007 and beyond.

WHO PAYS FOR ALL OF THIS?

Edmond’s road and traffic improvements are not paid for entirely with our city taxes. We aggressively seek out and secure federal funding for many of our plans and projects. Edmond is a member of the Association of Central Oklahoma Governments, the clearinghouse for federal funding for road and traffic improvements. Over the last fifteen years, our participation with the Association has been extremely successful, and we have received $47 million in federal funds in that time. We balance the need to improve traffic conditions in Edmond with our need to look out for you, the city taxpayer, and reduce costs as much as possible with alternative funding sources.

Other sources of funding come from developers. New subdivisions and new commercial developments often mean new streets and new traffic considerations. In both cases, developers are responsible for bearing the costs.

According to the American Public Transit Association, nearly half of all Americans believe traffic is a serious problem where they live. In Edmond we are fortunate to have a team of dedicated traffic planners with a single focus: keeping you on the move!