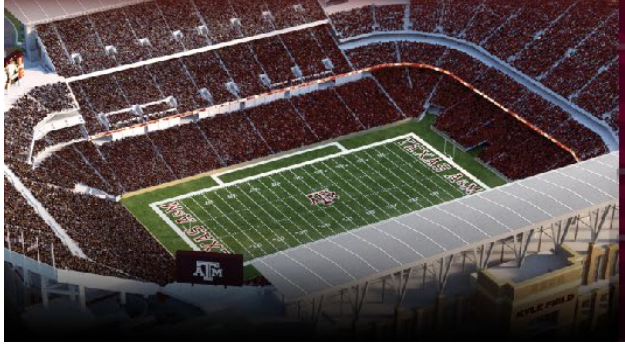


2022 Texas A&M Football Transportation Plan Look Ahead Report

Texas A&M Transportation Institute

By Debbie Albert and Tim Lomax

The 8th season of the Kyle Field Transportation Plan was mostly a "return to normal" after the COVID-pandemic year of 2020. The pandemic season did cause the transportation groups to re-examine the staffing and resource levels, as well as the operational decisions that were typically made during a gameday; some important improvements and efficiencies were implemented in 2021.

The 2022 football season traffic challenges will include changes to the FM 2818 roadway construction work zone, the new Aggie Park tailgate area, improvements in the campus railroad crossings and construction at the Wellborn Road intersections with Holleman Drive and Deacon Drive. There will be special emphasis on communicating the effect of these projects and opportunities before and during the season.

Aggie football traffic operations have been most successful when all the partners and fans understand the plans and their options. The 2022 Kyle Field Transportation Plan will be the product of a large coordination and communication effort including the groups noted below and others. Improving the fan experience during game weekends in and around the 4th largest Texas downtown requires several mobility services and options for getting to, around and away from campus. The team that creates and deploys the Kyle Field Transportation Plan continues to successfully meet these expectations by incorporating a variety of fan interests and gameday operations requirements.

- Texas A&M Transportation Services
- City of College Station
- City of Bryan
- Brazos County
- Bryan-College Station Chamber of Commerce
- Downtown Bryan Association
- Brookshire Brothers
- Tailgate Guys
- Texas A&M Hotel and Conference Center
- Texas A&M University Athletics
- Texas A&M University Marketing and Communications
- Texas A&M University Student Affairs
- Texas A&M Transportation Institute
- Texas A&M Ventures
- Texas Department of Transportation (TxDOT)
- 12th Man Foundation
- Local and state safety and law enforcement agencies
- Local Hotels and Motels

Overview

The 2022 Look Ahead Report reviews seasons 2013 through 2021 (other annual reports are published at: https://tti.tamu.edu/kyle/). The 2021 season highlights included a return from pandemic crowd sizes, the second and third largest Kyle Field crowds and continued improvement in postgame traffic operations and achievement of the two-hour traffic control removal goal for six of the seven games.

The 2022 season will likely see new challenges and opportunities from the following:

- Changes in tailgating activity with the opening of the new Aggie Park.
- FM 2818 roadwork that may result in roadway changes for the 2022 and 2023 seasons.
- New railroad crossing designs associated with the campus Quiet Zone, including greater emphasis on moving pedestrians through the underpasses rather than across the tracks.
- Accommodating the City of College Station's construction of the Wellborn/Holleman and Wellborn/Deacon intersection improvements during the season.
- Construction on Texas Avenue from University Drive to downtown Bryan.
- Changes to streets and parking lots in the Bonfire Memorial area – The Polo Road Garage added new parking capacity to the area and there will be circulation changes and some street widening to improve traffic.

With the dynamic growth pattern in enrollment, building construction and other upgrades there will be a constancy to "change" on and around the campus for the foreseeable future. Fortunately, the planning for all of these includes transportation for class days and events.

2021 Experience

Previous reports (https://tti.tamu.edu/kyle/) provide details for seasons from 2013 to 2020. This section highlights the 2021 season including evaluations for parking and transit operations.

Game Times

Transportation elements such as traffic and bus service are modified to accommodate the different demands of kickoff times, attendance and third quarter score (Exhibit 1).

Exhibit 1. 2021 Game Information

			3rd Quarter Score	
2021	**Kickoff**	**Attendance**	**TAMU**	**Opponent**
Kent State	7:03 p.m.	100,339	27	3
New Mexico	11:03 a.m.	98,780	34	0
Miss State	6:07 p.m.	102,272	19	24
Alabama	7:10 p.m.	106,815	31	24
South Carolina	6:39 p.m.	103,889	41	0
Auburn	2:39 p.m.	109,835	6	3
Prairie View	11:02 a.m.	98,251	45	3

Operational Aspects

- Cities and campus work together in gameday transportation planning and in real-time operations – traffic signals, law enforcement and traffic officers, and in pre-positioning resources such as Public Works vehicles and a tow truck to rapidly respond to incidents.
    - The Alabama and Auburn games were close in the 4th quarter with giant crowds that stayed until the end of the game. These are the situations that the transportation plan is designed to accommodate, and the 2021 version of the plan performed well.
    - Crashes and stalled vehicles, particularly during the postgame traffic crush, are not unexpected, but they can be quite disruptive. At 18 minutes before the end of the Alabama game, there was a two-vehicle crash on FM 2818 south of George Bush. Both inside lanes and the center turn lane were blocked, but quick action by College Station Fire and Police had the vehicles cleared and this major exit route reopened within 35 minutes. The Transportation Services group along with the Kyle Field Command Center and City of College Station Control Center maintained contact with the crash scene, developed alternative, just-in-case exit routing plans coordinated with the parking officers directing traffic on campus streets.
    - Some of the highest congestion levels since 2014 were achieved during 2021. This was caused by a combination of very large crowds that stayed until the end of the game and the success of the transportation plan in quickly getting traffic away from the campus parking lots and onto the city street system. The high percentage of congested streets indicates that the traffic has reached many of the exit corridors. The plan is for this percentage to come down sharply as drivers leave the parking lots, use the city streets to get away from campus and either exit the area or reach their destination.
    - Significant involvement of Transportation Services has improved traffic operations despite a 25 to 30 percent increase in gameday fan population over the 2013 season.
    - Congestion will continue to be a feature of the postgame period, but a combination of experienced and dedicated staff, resources, technology, and communication to fans helps create a plan that provides safety and good travel time reliability for entering and exiting traffic.
    - The City of College Station's cameras, the ability to change traffic signal timings, their deployment of the Wellborn Road Contraflow and George Bush Drive closures and staff actions are important elements of the postgame operation. They require capital investments, gameday operations funds and staffing that are well beyond the levels prior to 2014. Texas A&M Transportation Services assists the city in funding those operations.
    - The City of Bryan and the Downtown Merchants Association have supported the Downtown Bryan gameday shuttle since 2015. Ridership has grown and attracts an even mix of Bryan-College Station residents and out-of-towners. The restaurants, shops and entertainment options offer a different gameday

experience than areas near campus. Ridership was above 2,000 riders for every 2021 game – above the highest value for any game in the previous six seasons.
    - The City also provides traffic signal timing that supports postgame operations and are deploying more technology to improve their ability to respond to growing traffic demands.
    - The Brookshire Brothers development near the George Bush Drive/Penberthy Boulevard intersection presented a unique challenge postgame; its main driveways connect to the section of eastbound George Bush Drive that is restricted to a small number of high priority vehicles moving westbound. Transportation Services and Brookshire Brothers management developed a postgame traffic plan that directed their customers to Penberthy Boulevard through the Park West parking lot.
    - All these efforts are coordinated with agencies and groups between seasons and prior to each game, as well as during gamedays.
- ***Vehicle, Pedestrian and Bicycle Traffic Design***
    - Pedestrian safety and experience are a priority for Transportation Services and others. Pregame and postgame traffic designs route major vehicle flow away from major pedestrian flows; separating the two types of flows improves safety and vehicle operating efficiency. Where conflicts occur, the vehicle and pedestrian flows are managed to ensure safety as well as reduce traffic congestion.
    - Dismount zone signs and constant reminders ensure safe pedestrian areas in the Fan Zone, Aggie Park, near the Pitcock Hotel and around Houston Street. We continue to solicit support from other gameday operation groups to support the Transportation Services staff. Delivering a 'wheel-less area' around Kyle Field not only improves transportation but fan experience as well.
    - The Wellborn and Discovery contraflow lanes push vehicle traffic away from major pedestrian flows.
    - We continue to advertise preferred routes to pedicabs as they make themselves part of the gameday experience (not always positively). With our inability to completely enforce good behavior we rely on partnerships from fans and other gameday operations to ensure compliance.
- ***Rideshare operations*** are part of the fan experience and as a result, we have created pregame and postgame drop-off and pick-up locations in several areas that are close to popular destinations. Getting information to drivers about road closures and gameday procedures continues to be a challenge; the partnerships we have created with the local government and University groups are producing small successes.
- ***Roadway Construction***

  The next several years will see construction projects that will either affect gameday traffic patterns or change the travel paths from year to year. Coordinated traffic and marketing and communications plans will ensure fans and the community are aware of these changes. The transportation plan will evolve as new construction projects come online.

- The FM 2818 project will result in a very different road configuration from the one in place for the 2020 season. The 2021 season saw relatively minor changes. For the 2022 season, the FM 2818 lanes will have a different configuration and some of the cross street intersections will also be different.
- The diverging diamond interchange at Stotzer/FM 2818 operated smoothly and did not affect pregame or postgame operations in large thanks to signal timing by the City of College Station. The Stotzer underpass construction, however, narrowed the FM 2818 lanes to one in each direction, causing more congestion in the northbound direction after the 2021 games. This road should return to its two-lanes-in-each-direction design for the 2022 season.
- Texas Avenue from campus to downtown Bryan will be under construction for more than two years beginning in 2022. The exact design and configuration of the project is not yet determined, but the gameday traffic plans will be modified if necessary.
- The City of College Station and TxDOT will raise the level of Wellborn Road to match the railroad tracks at the intersections of Holleman Drive and Deacon Drive to improve operations and safety. The construction will affect both intersections in the 2022 season.
    - Holleman – The west side of Holleman (over the railroad tracks) will be closed for at least some of the season. This will mean traffic coming from the student apartment areas west of Wellborn will have one fewer exit location after the football games, putting more pressure on the remaining streets. Wellborn will remain a five-lane street with four lanes southbound to accommodate fans leaving Kyle Field.
    - Deacon – The creation of the railroad crossing will require Wellborn Road to be narrowed to two lanes in each direction and the closure of the east side of Deacon.
- Luther Drive will be widened from Penberthy to Marion Pugh, but the project will likely not begin until 2023. A construction project to widen State Highway 6 will begin in 2024 or 2025. Preliminary plans suggest there will be only modest effects on gameday traffic.

Parking

The Alabama and Auburn games led the 2021 parking volume stats with similar values in all five campus parking areas (Exhibit 1). The other two SEC games were about 10 percent lower than the leading games, and the non-conference games were another 10 percent lower. The early season 11 a.m. New Mexico game had the smallest 2021 parking volume.

Typical 2021 gameday parking volume was only about 400 below the 20,660 cars in 2019 (Exhibit 2). There were more parked vehicles in the Main Campus area, fewer in the Reed/ Agriculture area and about the same in the other three areas. There are two big take-aways from the 2021 parking experience.

1. The ability to use the external parking areas of East Main, Research Park and the Veterinary Science/Agronomy allow fans to have several choices that connect to different postgame exit routes and are served by shuttle routes that drop riders very near Kyle Field.
2. Communicating to fans about where the open parking areas are is very important. The early years of the new Kyle plan saw some overloading of campus parking zones and less parking in some other areas. Recent years have seen use of social media, websites, and TV/radio messaging to connect fans with information about their transportation options. Even though they may change from game to game or during pregame periods as parking areas fill, this information along with presale options allow the parking resources to be managed for the benefit of fans.

Exhibit 1. 2021 Parked Vehicles by Campus Area

2021 Game Totals	Sept 4 Kent St	Sept 18 New Mex	Oct 2 MS State	Oct 9 Alabama	Oct 23 So Caro	Nov 6 Auburn	Nov 20 PVAMU	Typical
Main	5,100	4,410	5,160	5,470	5,320	5,380	4,820	**5,210**
East Main	1,220	1,250	1,700	2,160	2,000	2,160	1,580	**1,800**
Reed/Agriculture	8,250	8,110	8,240	8,650	8,480	8,620	8,250	**8,420**
Research Park	2,040	1,840	2,500	3,610	2,810	3,450	2,110	**2,750**
Vet/Agronomy	1,790	1,410	1,890	2,440	2,030	2,480	1,660	**2,050**
Total	**18,400**	**17,020**	**19,490**	**22,330**	**20,640**	**22,090**	**18,420**	**20,230**

Parking facility, plan and policy changes in each year explain some of the variation in campus parking patterns. The opening of two parking garages (Stallings Boulevard in 2016 and Polo Road in 2020) and the 2017 recreational vehicle parking consolidation are perhaps the most significant changes since 2014. Parking for several hundred Kyle Field workers has also played a role in changing parking numbers. In 2014, they were accommodated on Fan Field, in 2015 in the Agronomy Road area, and for the 2016 and 2017 seasons they parked in the Vet School area. Worker parking has been in Lot 88 adjacent the General Services Complex on Agronomy Road since 2018. This lot had been used by RVs through the 2016 season and was mostly empty in 2017.

Exhibit 2. Typical Game Parked Vehicles by Campus Area - 2013 to 2021

Parking Areas	2013	2014	2015	2016	2017	2018	2019	2021
Main Campus	4,290	4,660	4,570	5,430	5,050	5,180	4,800	5,210
East Main	2,030	2,320	2,370	2,240	2,670	2,230	1,710	1,800
Reed/Agriculture	9,400	8,900	8,430	8,930	8,910	9,680	9,480	8,420
Research Park	1,510	3,040	3,320	3,240	2,640	2,650	2,600	2,750
Vet/Agronomy	1,770	2,720	2,980	2,190	1,880	2,300	2,070	2,050
Total	**19,000**	**21,640**	**21,670**	**22,030**	**21,150**	**22,040**	**20,660**	**20,230**

Note: 2020 data is not included due to COVID-19 stadium capacity restrictions

Shuttle Ridership

Texas A&M University Transit has provided fans an alternative method to get to, around and from campus for 33 years. Football service has expanded to serve many off-campus areas and all the parking areas used on a typical gameday. The Downtown Bryan route has established itself as a desirable free parking and shuttle option, as well as supporting the downtown merchants. The post-2013 gameday route structure includes service to the Bonfire Memorial, along Agronomy Road and the Stotzer Parkway parking areas, as well as three routes around west campus. Four routes of modified regular day operations provide service to off-campus student apartment areas.

The unprecedented demand at the 2013 Alabama game showed the importance of bus and traffic plans to be tightly coordinated. Both before and after the game, the buses on west campus were moving slower than pedestrians due to competition from auto traffic. The Kyle Field Transportation Plan concentrated on reducing conflicts in regular vehicle, bus, and pedestrian traffic streams. The plan ultimately meant that fewer sections of road were used for cars, leaving more sections for buses to travel unimpeded to parking lots, particularly those farther from Kyle Field.

On the upside, the well-trained drivers and alert operations staff allow the TAMU Transit fleet to have exceptional flexibility, allowing buses to shift between routes so they can serve the largest waiting groups, contributing to lines clearing rapidly after games. While this type of operation is normally accomplished in other cities with full-time professional drivers, Texas A&M Transit operates with a mix of full-time professionals and part-time student drivers.

Bus ridership was down by about 18 percent in 2021 relative to 2019 levels (Exhibit 3). Most of this decline was due to the elimination of the Get to the Grid shuttle from American Momentum Bank. While that route had good success, it duplicated the free park-and-ride shuttle from downtown Bryan that is supported by the downtown merchants and the City of Bryan. That route carried almost 50 percent more riders than in 2019; the route had topped 1,900 rides only once in its six-year history but was more than 2,000 for every 2021 game. More buses can be easily added to this route if needed and the on-campus stop is in front of the MSC and closer to Kyle Field than the Grid location. Ridership on the four routes that serve student apartments increased by 15 percent over 2019.

Ridership was down on every on-campus route except Paratransit, with an overall on-campus decline of about eight percent from 2019. Even though the paratransit customer ridership may have been down; the increase in ridership was likely due to the Kyle Field workers who park in the same area and ride the route early in the pregame period.

Exhibit 1. 2021 On- and Off- Campus Football Bus Ridership

2021 Ridership	Sept 4 Kent St	Sept 18 New Mex	Oct 2 MS State	Oct 9 Alabama	Oct 23 So Caro	Nov 6 Auburn	Nov 20 PVAMU	Typical
D'twn Bryan	2,320	2,080	2,080	2,050	2,570	2,650	2,750	2,360
Apartments	4,660	4,500	4,050	4,380	4,030	5,370	3,790	4,400
Off Campus	**6,980**	**6,580**	**6,130**	**6,430**	**6,600**	**8,020**	**6,540**	**6,760**
Agronomy	2,420	2,280	2,190	2,610	2,530	2,670	2,620	2,480
Bonfire	1,270	940	1,320	1,300	1,180	1,490	1,870	1,340
Bush Library	5,960	4,850	5,500	6,790	6,980	7,650	5,800	6,220
Lot 58	730	500	670	680	750	880	520	680
Para	1,960	2,280	1,880	2,150	2,220	2,120	2,550	2,170
Reed/Olsen	640	520	820	700	620	870	450	660
Stotzer	850	1,000	1,030	730	630	930	1,070	890
WHR	860	800	1,010	710	980	890	770	860
On Campus	**14,690**	**13,170**	**14,420**	**15,670**	**15,890**	**17,500**	**15,650**	**15,300**
TOTAL	**21,670**	**19,750**	**20,550**	**22,100**	**22,490**	**25,520**	**22,190**	**22,060**

Exhibit4 shows the increase in both on- and off-campus bus ridership from 2013. The drop in off-campus ridership brought by the elimination of the large Get to the Grid parking location has been somewhat offset by the increase in off-campus apartment routes. Routes serving the 12th Man Foundation season ticket holder parking lots have been declining since 2016. Another pattern seen since the new route structure in 2014 is the use of shuttles to move tailgaters from their parking area to their party. Additional stops were provided to allow this to happen more easily, and particularly for afternoon and evening games these stops provide improved gameday experiences.

Exhibit 4. On- and Off- Campus Football Bus Ridership - 2013 to 2021

Routes	2013	2014	2015	2016	2017	2018	2019	2021
Off-Campus	**6,500**	**12,620**	**11,100**	**9,490**	**8,900**	**9,200**	**10,210**	**6,760**
Park-and-Ride	4,350	9,380	6,450	5,880	5,400	5,760	6,380	2,360
Apartments	2,150	3,240	4,650	3,610	3,500	3,440	3,830	4,400
On-Campus	**6,180**	**14,650**	**20,190**	**19,450**	**17,560**	**16,300**	**16,580**	**15,300**
12th Man	1,360	2,960	4,030	5,530	4,620	4,780	3,130	2,410
Other On-Campus	4,820	11,690	16,160	13,920	12,940	11,520	13,450	12,890
TOTAL	**12,680**	**27,270**	**31,290**	**28,940**	**26,460**	**25,500**	**26,790**	**22,060**

Note: 2020 data is not included due to COVID-19 stadium capacity restrictions

It is notable that every gameday since 2014 (except for 2020 games) has had higher ridership than all gamedays prior to 2013 (including the enormous 2013 Alabama game). The typical – and even the low ridership games – are usually double the typical pre-2014 games.

A typical game sees more ridership pregame than postgame across all route types for all game times. The pregame rides to tailgates, the Pepsi Fan Zone and other activities are not usually a part of the postgame service. The postgame bus waiting lines, although they are cleared before an hour postgame, probably deter some fans from using bus service, while others walk to areas like Northgate before going home or to their hotels. Inclement weather and game time also affect ridership, with bad weather and later games increasing ridership on all route types.

Parking and Bus Ridership Summary

The biggest difference between 2013 and the seasons with the larger Kyle Field design has been bus ridership (Exhibit 5). A combination of expanded route structure, close-to-Kyle bus stop locations and faster and more reliable bus routes have played a role in doubling the transit ridership. This general trend has been experienced in both on- and off-campus ridership. Exhibit 6 provides bus ridership and parking information for each home game since 2013.

Exhibit 5. Parking and Ridership per Game Averages by Year - 2013 to 2021

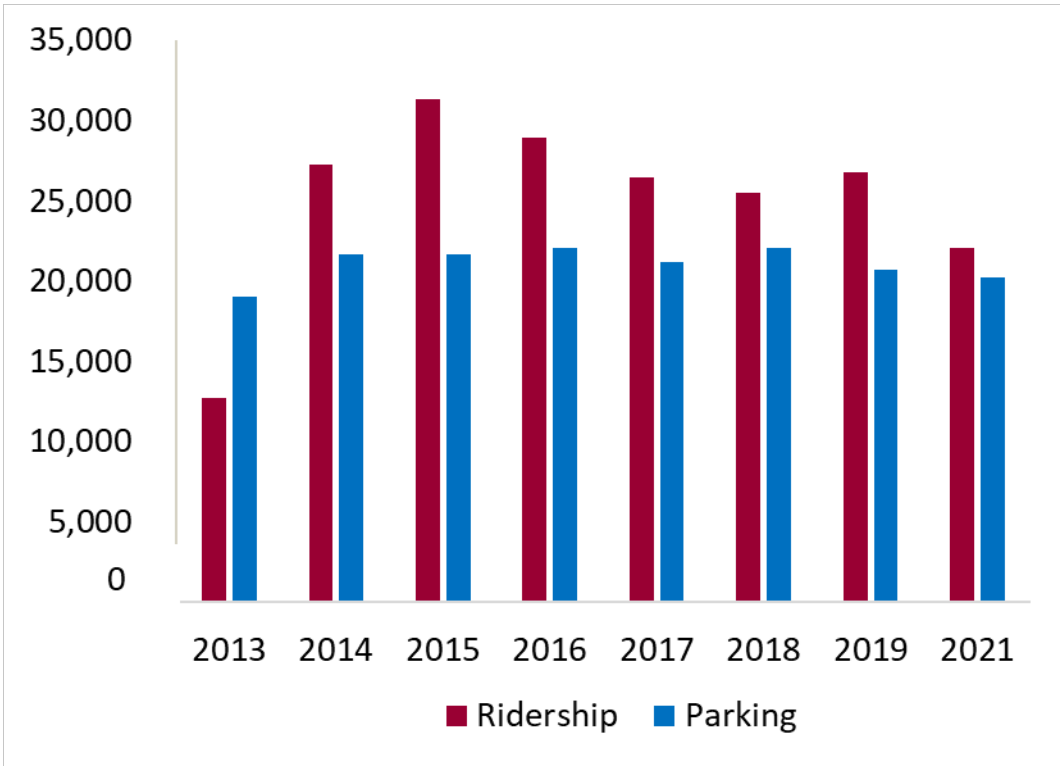


Exhibit 6. Campus Parking and Bus Ridership During Football Gamedays – 2013 to 2021

2013	Ridership	Parking	2014	Ridership	Parking	2015	Ridership	Parking
Rice	14,040	17,820	Lamar	25,720	21,400	Ball State	34,050	22,160
Sam Houston	16,820	19,410	Rice	24,800	20,970	Nevada	28,610	19,320
Alabama	22,490	23,700	Univ Miss	31,010	23,630	Miss State	32,840	22,440
SMU	11,360	18,910	LA Monroe	23,370	18,740	Alabama	33,900	23,590
Auburn	12,810	20,110	Missouri	31,070	21,070	So Carolina	23,030	18,450
Vanderbilt	10,490	17,700	LSU	27,670	21,130	Auburn	29,590	21,990
UT-El Paso	10,440	19,560				W Carolina	28,750	20,530
Miss State	12,820	19,460						
Total	**111,270**	**156,670**		**163,640**	**126,940**		**210,770**	**148,480**
Typical	*12,680*	*19,000*		*27,270*	*21,640*		*31,290*	*21,670*

2016	Ridership	Parking	2017	Ridership	Parking	2018	Ridership	Parking
UCLA	30,340	21,970	Nicholls St	26,680	20,280	NW State	18,080	17,250
PVAMU	23,330	18,090	Louisiana	23,590	17,560	Clemson	27,730	23,520
Tennessee	32,320	24,520	So Carolina	25,340	21,630	LA-Monroe	23,100	21,140
New Mex St	27,290	21,520	Alabama	29,060	22,690	Kentucky	27,010	22,970
Univ Miss	30,490	23,950	Miss State	25,460	21,430	Univ Miss	25,710	20,480
UTSA	27,010	19,380	Auburn	25,620	19,810	AL-B'ham	25,030	21,600
LSU	26,150	20,850	NMexico	26,600	21,040	LSU	24,420	22,540
Total	**196,930**	**150,280**		**182,350**	**144,440**		**171,080**	**149,500**
Typical	*28,940*	*22,030*		*26,460*	*21,150*		*25,500*	*22,040*

2019	Ridership	Parking	2021	Ridership	Parking
Texas State	18,820	16,710	Kent St	21,670	18,400
Lamar	24,130	20,330	New Mexico	19,750	17,020
Auburn	28,500	21,490	MS State	20,550	19,490
Alabama	29,700	22,390	Alabama	22,100	22,330
Miss State	24,250	18,990	So Carolina	22,490	20,640
UTSA	25,280	18,660	Auburn	25,520	22,090
So Carolina	28,870	22,100	PVAMU	22,190	18,420
Total	**179,550**	**140,670**		**154,270**	**138,390**
Typical	*26,790*	*20,660*		*22,060*	*20,230*

Less Efficient Parking Due to Use of A&M Parking Permit

The combination of prepaid, 12th Man Foundation donor parking and cash at arrival provides a good mix of parking assets. The other gameday parking method – faculty, staff and students using their regular Texas A&M parking permit (referred to as "any valid permit" (AVP)) is a less efficient operation, as demonstrated in vehicle occupancy studies conducted in 2015 and 2018. A&M students, faculty and staff with a valid permit can park on gamedays for no additional charge in some parking areas. This policy requires:

1. the traffic plan to handle more vehicles,
2. pushes some gameday paying parkers farther from Kyle,
3. reduces the ability of A&M Transportation Services to pay for staff and resources to accommodate gameday operations, and
4. essentially adds to the regular permit costs for those who do not attend football games.

Studies in 2015 and 2018 found that the 'any valid permit' parkers had about half a person less in each vehicle than the cash payers. No surprise for economic students (free goods are always overconsumed), but in this case the typical 4,000+ A&M permits seen on gamedays could accommodate 1,500 to 2,000 additional gameday fans if they had the same persons-per-vehicle ratio as the paying customers. As crowds grow, and parking resources change, this policy should be re-examined to see if the efficiency and fairness decisions might change in coming years (Exhibit 7).

The 2017 season was the first time that Texas A&M permits were not honored in the campus garages; the percentage of parkers using their A&M permit peaked that year, perhaps due to the awareness about that parking method. The lots in the East Main area (e.g., Bonfire Memorial) appeared to be the relocation point of these permit holders – the share of campus gameday parking in this area increased 30 percent from 2016 to 2017. Since then, the share of A&M permit parkers has declined each year and is now the same as the first year of the expanded Kyle Field. The four 2021 SEC games (Mississippi State, Alabama, South Carolina, and Auburn) each had over 4,600 cars who used their regular permit to park. Since these parkers have an average of about ½ person less per car, we accommodated an extra 1,200 cars per game than if they had the occupancy rate of gameday paid parking (the season total was 7,440 extra cars). These added cars required more traffic control and since they were parked on the edges of campus, more bus service was required to transport those parkers.

It is unlikely additional buses or more road space near campus will be deployed in the next several years. The A&M Campus Master Plan shows parking spaces being converted into classroom, office, and lab buildings; the inefficient A&M permit parking access will be a greater strain on the parking and bus systems. Preliminary solutions to these constraints include, requiring parkers using A&M permits to carry at least two people in their vehicle (the same concept as using the freeway carpool lanes in big cities), reducing the number of lots accepting A&M permits, or charging a lower gameday parking fee for these permits.

Exhibit 7. Paid Parkers Compared to Texas A&M Permit Parkers – 2013 to 2021

Season	Total Any Valid Permit	Total Paid Parkers	Percent AVP
2013	29,450	46,630	39%
2014	28,280	34,980	45%
2015	32,070	36,780	47%
2016	31,840	35,300	47%
2017	34,540	28,550	55%
2018	30,910	30,190	51%
2019	28,120	29,510	49%
2021	30,240	37,670	45%

Congestion

The congestion goals for the Kyle Field transportation plan are designed around maintaining safe travel paths for pedestrians, bicyclists and vehicles that have a reasonable amount of extra travel time. The plan explicitly recognizes the difficulties in loading and unloading the Kyle Field area, which regularly has more than 120,000 spectators and extra tailgaters. This demand is equivalent to the 4th largest Texas downtown, in the 15th largest Texas metro area. The lack of freeways, and basically no new roadway capacity, meant that the plan relied on aggressively operating the network, as well as accepting that some traffic congestion will exist. Staff from A&M Transportation Services, the City of College Station, and Texas A&M Transportation Institute combine to monitor, analyze, and adapt to the changing gameday transportation situation using equipment in the College Station Traffic Control Center, Kyle Field Command Center and the new-in-2021 Polo Road Building Control Center. From these locations the staff can direct officers and staff on the campus and city streets to adjust the transportation plan to fit the changing needs of spectators and the community.

- College Station Public Works staff and College Station Police Department Special Event officers use their Control Center to monitor city street intersections and the traffic signal timing.
- The Polo Road Building houses the A&M Transportation Services offices and on gamedays hosts representatives of each of the major functional groups within A&M TS. Monitoring cameras and radios are used to receive and dispatch instructions to officers on the streets, many campus intersections, parking lots and garages as well as staff deploying signs and barricades.
- Kyle Field Command is the hub for gameday operations – transportation is just one of several functions that are coordinated from there. The Transportation Services staff person relays requests from these other functional groups to the proper responder within the transportation groups.

Pregame activity is monitored from the Kyle and Polo offices; an optimized city street traffic signal system is used to handle pregame traffic so Public Works staff is not required to be

operational. The postgame operation sees staff in each location in near-constant contact with the other groups; signal timing is adjusted, and instructions relayed to officers, field staff, and bus drivers as needed.

The policy approach from both on- and off-campus entities is to provide as much exiting capacity as practical to reduce the amount of time that traffic congestion affects postgame travel to homes, hotels, condos, restaurants, and entertainment venues. The on- and off-campus agencies have a goal of beginning to remove traffic controls within two hours postgame – a goal that has been accomplished for almost all games since 2014 and for six of the seven 2021 games.

The major road system serving the Kyle Field exit traffic plan is analyzed before and after the game using traffic speed data. The percentage of about 43 miles of road (86 miles of directional road) that show slow-and-go or stop-and-go traffic congestion are estimated every 5 minutes to produce summary graphs.

- North-South Roads – Earl Rudder Freeway (SH 6), Texas Avenue, Wellborn Road
- East-West Roads – Villa Maria Road, University Drive/Stotzer Boulevard, George Bush Drive, Harvey Road, Holleman Drive, Rock Prairie Road, William D Fitch Parkway (SH 40)
- Loop Road – Harvey Mitchell Parkway (FM 2818)

Congestion data for the 2013 Alabama game (nearest comparable pre-expansion crowd size to the renovated Kyle Field) are used as the comparison point for pre-transportation plan conditions. The 2013 transportation plan allowed fans much more freedom of choice for their gameday exit routes and did not have the significant City of College Station investments. For the Alabama game in 2013, congestion did not peak for more than an hour postgame (vehicles could not get out of parking lots to the city streets) and congestion remained between 10 and 12 percent for about two hours. City staff was not able to begin removing traffic controls until 3½ hours postgame, and some intersections still had significant gameday traffic at 4 hours postgame. The lower congestion level “peak” point was caused by the exiting vehicles not being able to reach much of the city street network due to the near campus bottlenecks that could not be resolved with the limited resources of that era.

Congestion patterns change with attendance, start and end times, opponent, weather conditions, and game score. The key goal is to remove the traffic controls as soon as possible so that regular travel patterns can resume, although some congestion will exist. The plan is designed to return conditions to those like weekday afternoon peak traffic.

Transportation Plan Overview

The biggest difference in traffic congestion patterns with the new plan is that more capacity is focused on fans trying to leave the immediate Kyle Field area; this allows them to get back to their hotel, game weekend condo, apartment, house, or restaurant, and provides more routes for those leaving town to get back to their homes. Consequently, the near-campus bottlenecks

have been removed and traffic can use more of the street network. The congestion measure, therefore, peaks at higher levels than before, but traffic is a problem for less time.

With more experience, the traffic control is being picked up earlier and the traffic congestion goals are being met. In some cases, leaving traffic control in place longer results in more congestion; the 2015 Alabama game saw traffic congestion spike when the controls were not removed soon enough, and fans and community members were not able to easily drive back toward campus to restaurants and entertainment venues.

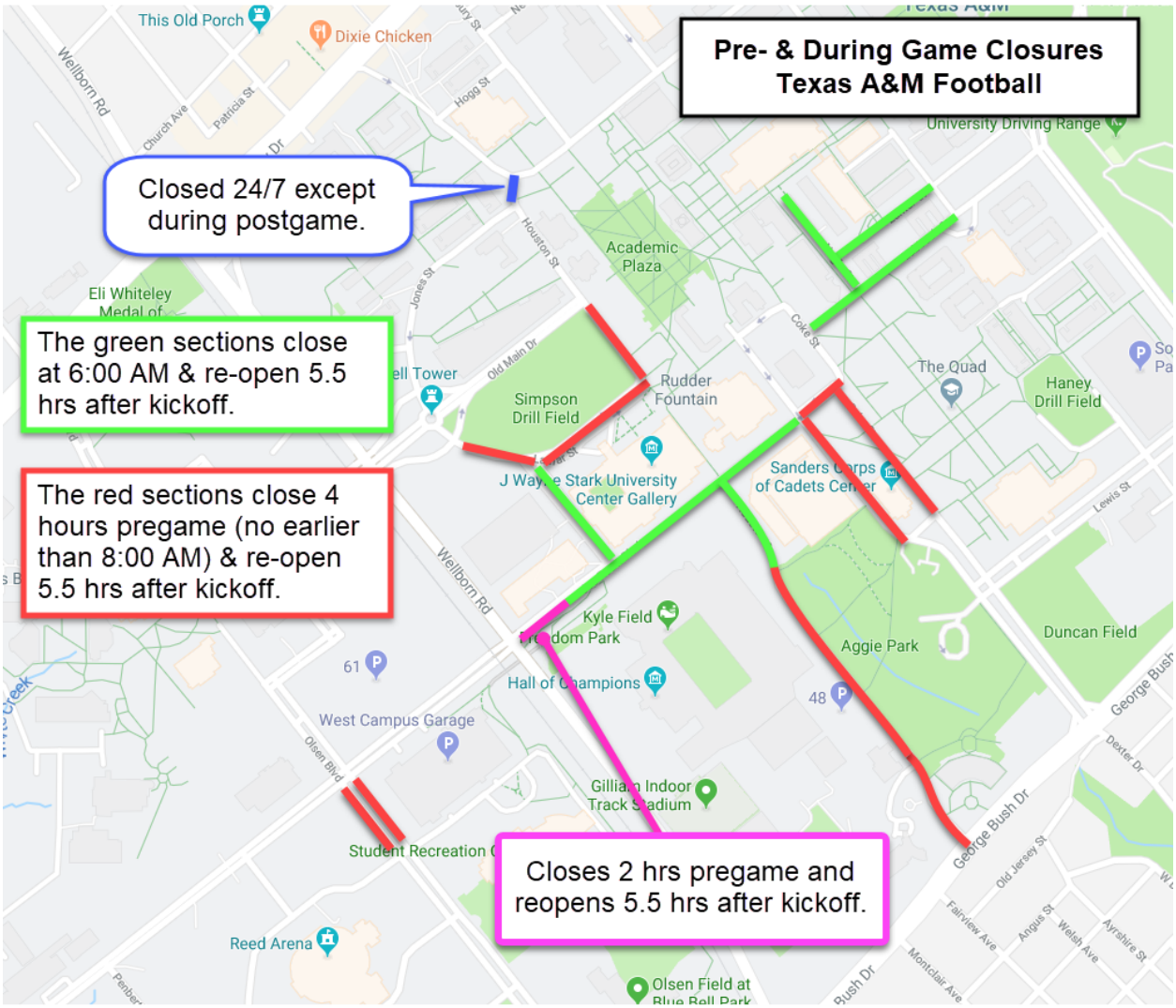
Pregame Traffic Congestion

Several changes have been made to the pregame traffic plan. The parking entry process brings vehicles off the streets before credentials or permits are checked. Traffic on the streets around the parking lots flows better because the signage at the curb informs parkers before they turn into the lots. Presale parking permits and well-trained parking staff are more efficient at getting parkers into their lots and off the roads. This is particularly important on west campus where some large lots see very high demand.

Pregame road closures and usage restrictions were implemented in 2017. Exhibit 8 illustrates the street sections.

- Olsen Boulevard between Kimbrough and Corrington – Closed to all vehicles except A&M Transit buses.
- Portions of Old Main Drive, West Lamar Street, Stallings Boulevard and Houston Street between the Bell Tower and the Stallings Boulevard Garage – Restricted to A&M Transit buses and parkers destined for the Garage.
- Houston Street north of George Bush Drive – Restricted to vehicles parking in lots south of Kyle Field.
- Coke and Throckmorton Streets north of Short Street – Restricted to vehicles parking in the University Center Garage.
- Joe Routt, Lubbock, Nagle, and Lamar - Interior campus streets restricted to vehicles with parking access and A&M Transit buses.

Exhibit 8. Pregame Road Closure and Restricted Access Areas



These restricted areas provide a much safer and more pleasant pedestrian environment. There is much less vehicle traffic near high numbers of pedestrians, and parking vehicles are not allowed to travel across campus in many cases. Extensive communication to fans and the community, and the traffic control design ensures efficient routing and easier access to parking lots and garages.

The evening kickoff SEC games – Mississippi State, Alabama, and South Carolina – had very similar pregame traffic congestion patterns (Exhibit 9). With so much time before kickoff, fans were able to make their way onto campus for tailgating and other festivities without overloading the city streets. The 2:30 p.m. Auburn game, by contrast had much higher congestion levels that peaked before an hour pregame. In that last hour, the vehicles clogged campus streets and parking lot and parking garage access drives. City street congestion was like the 2:30 p.m. Auburn game in 2019 that had almost 102,000 fans in attendance.

The smaller game congestion graph in Exhibit 10 is compared to the typical weekday morning peak congestion in 2019. The evening Kent State kickoff congestion was like the afternoon SEC games – congestion levels never exceeded 10 percent of the monitored street system and declined after the hour pregame mark. The New Mexico and Prairie View A&M games followed the pattern seen in previous 11 a.m. games – congestion is non-existent at 90 minutes prior to kickoff and then jumps up for an hour while parking lots and garages are filled. The larger Prairie View congestion values may be related to increased train activity and the west campus Corps of Cadets march route that caused re-routing and more concentration of entering traffic.

Exhibit 9. 2021 Gameday Pregame Congestion – SEC Games

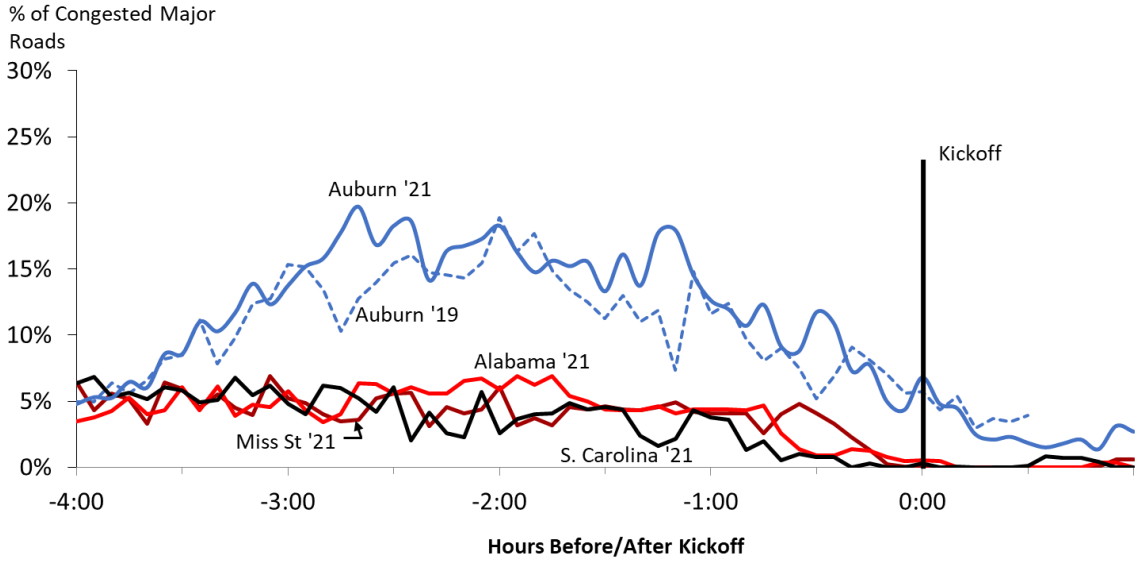
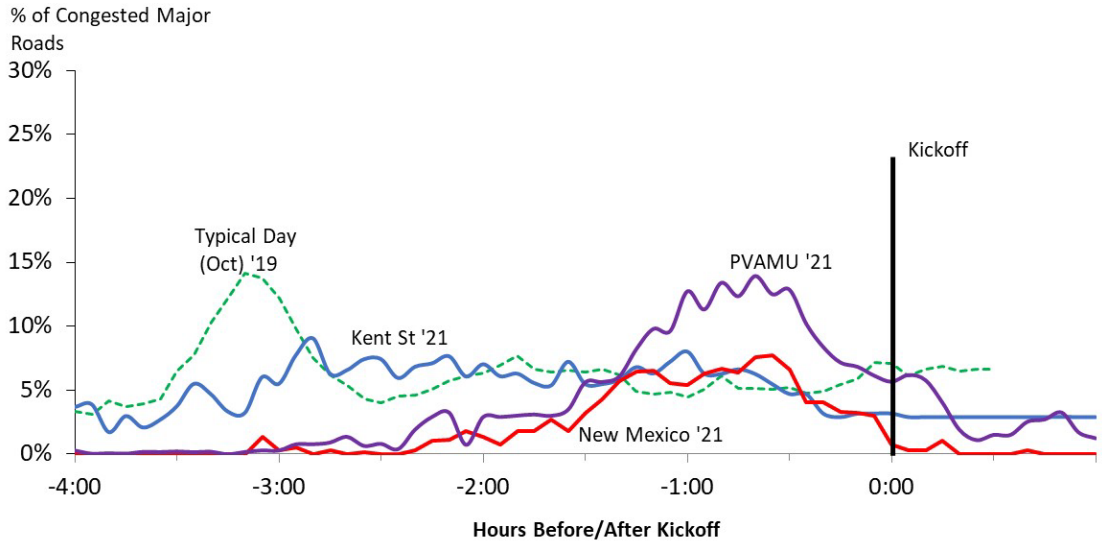


Exhibit 10. 2021 Gameday Pregame Congestion – Smaller Games



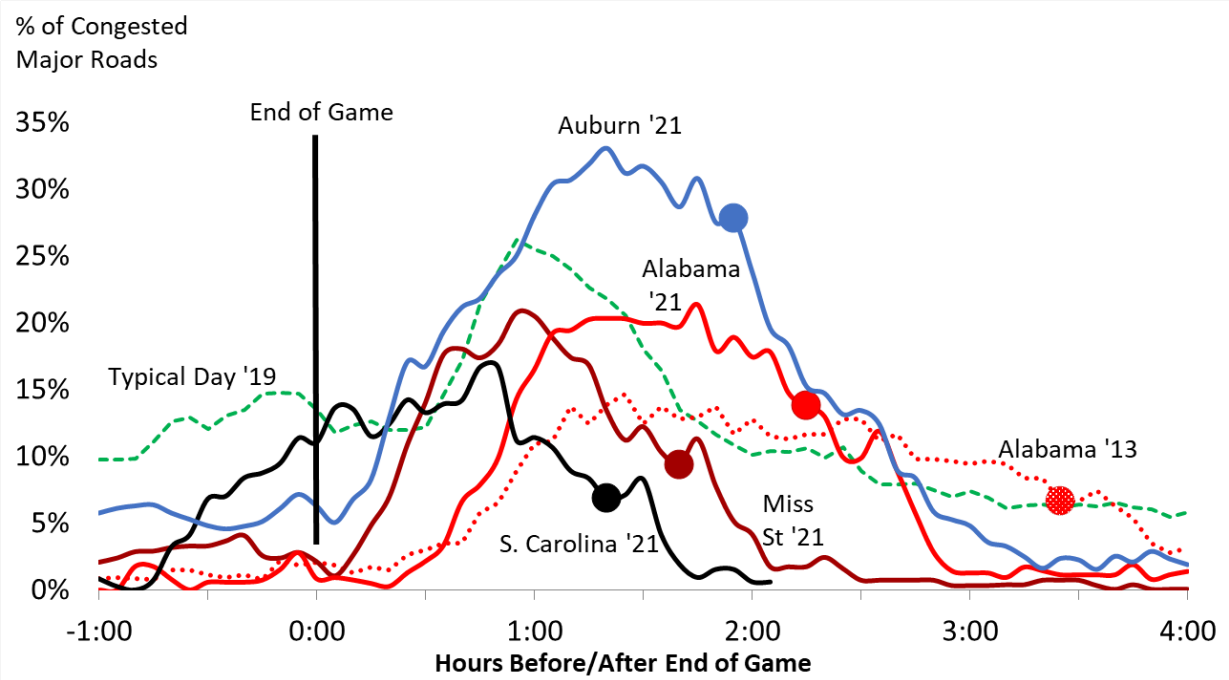
Postgame Traffic Congestion

In contrast to previous seasons, the big 2021 SEC games that were close until game end - Mississippi State, Alabama, and Auburn – had different traffic patterns (Exhibit 11).

- Mississippi State - Congestion built quickly over the first 30 minutes and peaked at one hour postgame around 20 percent of the road system. Congestion began to come down rapidly afterward and the City of College Station probably could have begun removing traffic control a little earlier than the 1:40 mark postgame but the visiting football team meal extended for longer than normal.
- Alabama – The usual huge challenge presented by the Alabama game was given a twist with the fan's field invasion after the big Aggie win. The delay of tens of thousands of people leaving Kyle Field meant the congestion line increased about 30 minutes after the Mississippi State and Auburn games. And rather than peaking and then declining, the extended fan departure meant that the congestion peak lasted for about an hour, although at a much lower level than the Auburn game which had similar attendance. Therefore, the postgame traffic control could not be removed as quickly as desired and was still in place and interfering with the desire to come back toward campus for entertainment and celebrations. This pattern has been seen after an Aggie win in a large game; the controls prioritize away-from-Kyle routes. When incoming traffic begins to build, the city and campus need to remove the controls and return the transportation system to normal operations, although traffic congestion may not have returned to a normal day operation.
- Auburn – As the Aggies began to pull away in the 4th quarter, some fans began to move toward their postgame activities and congestion built faster than the other SEC games this year and achieved the highest value in the post-2013 period. It took a while to get the second largest A&M football crowd away from Kyle, but traffic controls began to be removed at two hours postgame. Congestion declined rapidly afterwards mirroring the Alabama game from that time.
- The South Carolina game resembled traffic conditions after a large Aggie win – earlier congestion conditions and an extended but lower congestion peak. Traffic controls were removed beginning at 1:20 postgame.

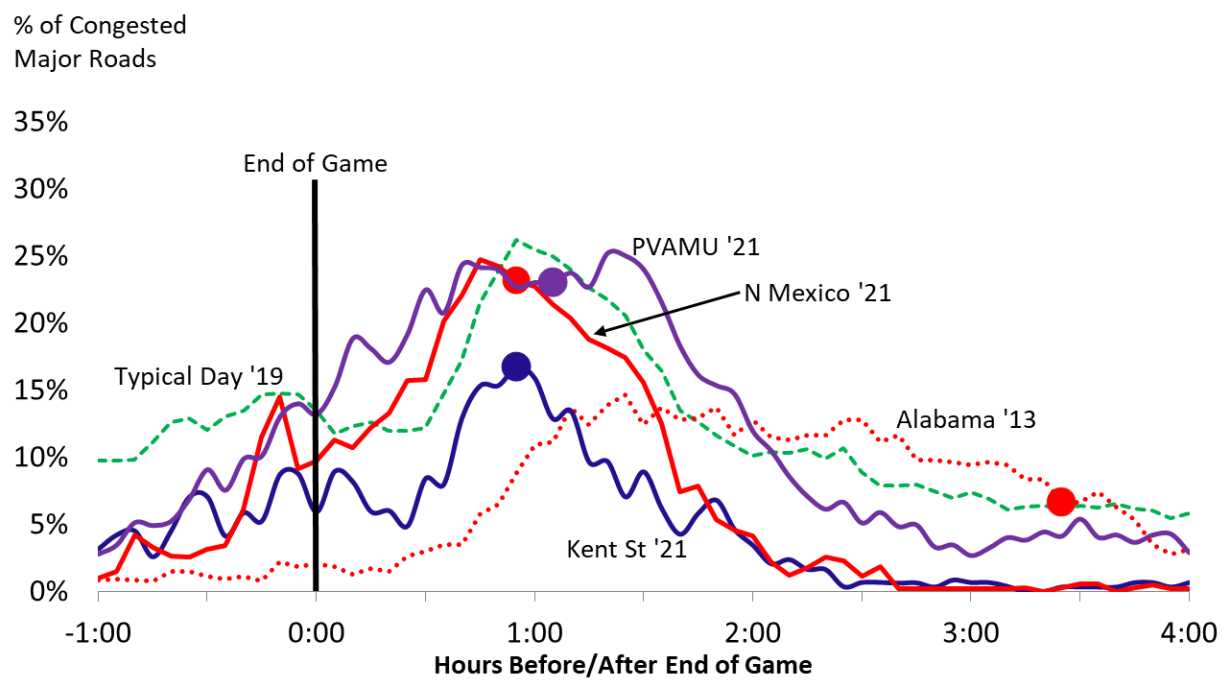
The two 11 a.m. games with smaller attendance (approximately 98,000 for New Mexico and Prairie View A&M) resembled each other; congestion began to rise before game end, there was higher congestion levels than most of the SEC games and traffic control was removed around 1 hour postgame (Exhibit 12). Games that end in the afternoon combine gameday and other community traffic; games that end late at night have less community traffic. The Kent State game (an evening kickoff) had lower congestion levels and a quicker end to the congestion.

Exhibit 11. 2021 Gameday Postgame Congestion – SEC Games



Note: Dot indicates when traffic control began to be removed by City of College Station (goal is within 2 hours of game end.

Exhibit 12. 2021 Gameday Postgame Congestion – Smaller Games



Note: Dot indicates when traffic control began to be removed by City of College Station (goal is within 2 hours of game end.

Changes for the 2022 Kyle Field Transportation Plan

The transportation plan will see some more changes for the 2022 season. Some of the items below were initiated during the 2021 season but will be consistent pieces of the plan for 2022 and beyond. Others were developed during post-season review meetings that either address problems or use opportunities to improve safety and reduce traffic congestion.

- The pedestrian flow along Stallings Boulevard was substantially re-routed to the MSC side of the street to improve pedestrian safety and decrease the time to load the Stallings Boulevard Garage. In general, the route uses staff at the street crossings at the Bell Tower and West Lamar to get pedestrians away from their traditional path that crosses the garage driveways.
- Aggie Park will re-open as a tailgate spot for the 2022 season. The operating details are not yet known, but the return of a significant pedestrian generator will likely mean the postgame opening of Houston Street will be delayed relative to the 2021 season.
- Postgame traffic control on the Texas Avenue side of campus will be altered to reduce the “cut-through” traffic between University Drive and George Bush Drive. A significant number of northbound vehicles were handled on Coke Street and Bizzell Street during the 2021 season; some of these had to be turned toward Texas Avenue to prevent them from crossing the pedestrian paths and vehicle exit routes in the Bonfire Memorial parking areas. A variety of actions and deployment times are being considered for traffic signal timing and traffic routes on campus and city streets.
- Pregame traffic control at Penberthy/Kimbrough will be added to the plan to reduce congestion and improve pedestrian safety in the area. In addition, there will be more communication about the appropriate campus entry points for each parking area. This intersection sees many northbound vehicles that turn toward the Research Park area; the parking lots in that area are more easily reached using Barbara Bush Drive or Discovery Drive.
- Postgame traffic control along Penberthy can provide options for parkers to choose more exit routes. The operational staff has become adept at allowing travel toward Stotzer Boulevard and George Bush Drive depending on congestion on those roads.

Appendix - The Revised Kyle Field Transportation Plan

The 2014 plan relied on a combination of fewer route choices and better communication about fan travel options than the previous plans. This was achieved with a few significant changes that have remained relatively constant through the subsequent seasons. Big picture elements that guide the plan design include:

- Overall philosophy – "let the leavers, leave" – Fans, residents and both on-and off-campus leadership indicated a desire to have traffic conditions return to something close to normal as soon after the game as possible. This is accomplished by making the outbound routes as efficient as possible for those wishing to leave.
- "Know Before You Go" – Fans and residents are encouraged to study their travel options before arriving at the game, and while choosing their parking locations. The award-winning Destination Aggieland smartphone app has been incorporated into the Texas A&M Mobile app. The information is also linked to the 12thman.com gameday website so the same consolidated information is presented. The app has year-round transportation and parking information for sports, cultural and community events.
- Use of the significant City of College Station investment – The City's $5 million upgrade in signals, controllers and monitoring cameras connected to the Traffic Control Center in 2014 provided gameday transportation operators with the ability to monitor the traffic conditions and adjust traffic signal timing and officer instructions during entry and exit traffic flow to optimize the plan.
- Improved bus travel – Bus routes serve many apartment complexes, free off-campus parking spaces and all on-campus parking areas. Routes were designed to avoid most of the usual congestion spots, and the traffic routes were designed to facilitate bus travel with minimal staffing and resources.

Many specific routing and access designs help implement these broad philosophies:

- Jointly funded traffic operations plan: Together the City of College Station and Texas A&M Transportation Services fund the postgame traffic plan for placing barricades and positioning officers.
- Wellborn Road contraflow: Four of the five lanes on Wellborn north of Southwest Parkway are used in the southbound direction. Turns from Wellborn Road are prohibited in that section and about 85% of the green time is for southbound traffic. A tow truck is positioned near the north end of the corridor to respond to problems.
- Discovery Drive contraflow: All four lanes operate outbound from west campus. The non-signalized intersection of Research Parkway at Stotzer is closed to outbound traffic, and the almost 4,000 parking spaces on west campus are directed out Discovery.
- FM 2818 at Holleman: Much more than half of the traffic from west campus uses this intersection to leave the area, so most of the green time at the 2818/Holleman intersection is given to FM 2818. Holleman travelers can use other routes to enter either the Wellborn contraflow lane or go south to Rock Prairie Road.

- University Drive green time during the postgame period: Approximately 3/4s of the green time at intersections east of Texas Avenue is dedicated to Kyle Field exiting traffic toward Highway 6.
- Park-and-ride bus service: The specific locations and routes have changed over the years, but the commitment to providing a free parking option and a close-to-Kyle drop-off location has been maintained. The service to downtown Bryan supported by the merchants and the city began in 2015.
- Ample parking and on-campus shuttle service: At least 27,000 parking spaces are available for gameday parking and the distant lots and many of the premium donor spaces are served by a bus route.
- Using simple directions to improve pedestrian safety, reduce traffic conflicts and creating better bus service. Vehicles are routed away from pedestrians and buses, and car traffic is separated in ways that reduce the amount of inefficient 'turn-taking.' On west campus, parking lots north of Kimbrough Boulevard/Research Parkway are routed north to Stotzer Parkway and lots to the south are routed to George Bush Drive. The road (the only east-west road on west campus) is not used as a through road but is used for four different traffic flows with empty pieces of road between. Most of Kimbrough Boulevard/Research Parkway is used to provide congestion-free bus service.
- Better communication with fans. The Destination Aggieland app and gameday website, along with Facebook and Twitter accounts provide predictable routing maps and update information as needed. The fan site TexAgs is used to distribute information and to update fans on operating procedures before gameday. The TexAgs channel was particularly useful when problems were being addressed, as it offers a chance for better dialogue and explanation than twitter or a web posting.
- Game evaluation reports are posted at tti.tamu.edu/kyle to provide fans and stakeholders with an overview of the performance for the plan. This site also contains all evaluation reports from past seasons.