



Council of Principal Investigators IT Update

May 9, 2018

M. Dee Childs, Vice President for Information Technology &
Chief Information Officer

Agenda

1. Transforming IT at Texas A&M
2. Update on IT Governance
 - Research & Innovative Technologies Research Faculty Survey
3. Cybersecurity as threat & competitive advantage
 - System Regulation 29.01.03 – advisory committee to revise
4. Other items of interest / Q&A

Transforming IT at Texas A&M University

1. Increase Research Competitiveness
2. Enhance Transformational Education & Accelerate Student Success
3. Position Texas A&M as a premiere technology University



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Update on IT Governance



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IT Governance Program – CPI Members

Strategic IT Committee

- Dr. Othmane Bouhali
- Dr. Darren DePoy*

Research & Innovative Technologies Committee

- Dr. Susan Bloomfield
- Dr. Michael Hall
- Dr. Ramalingam Saravanan

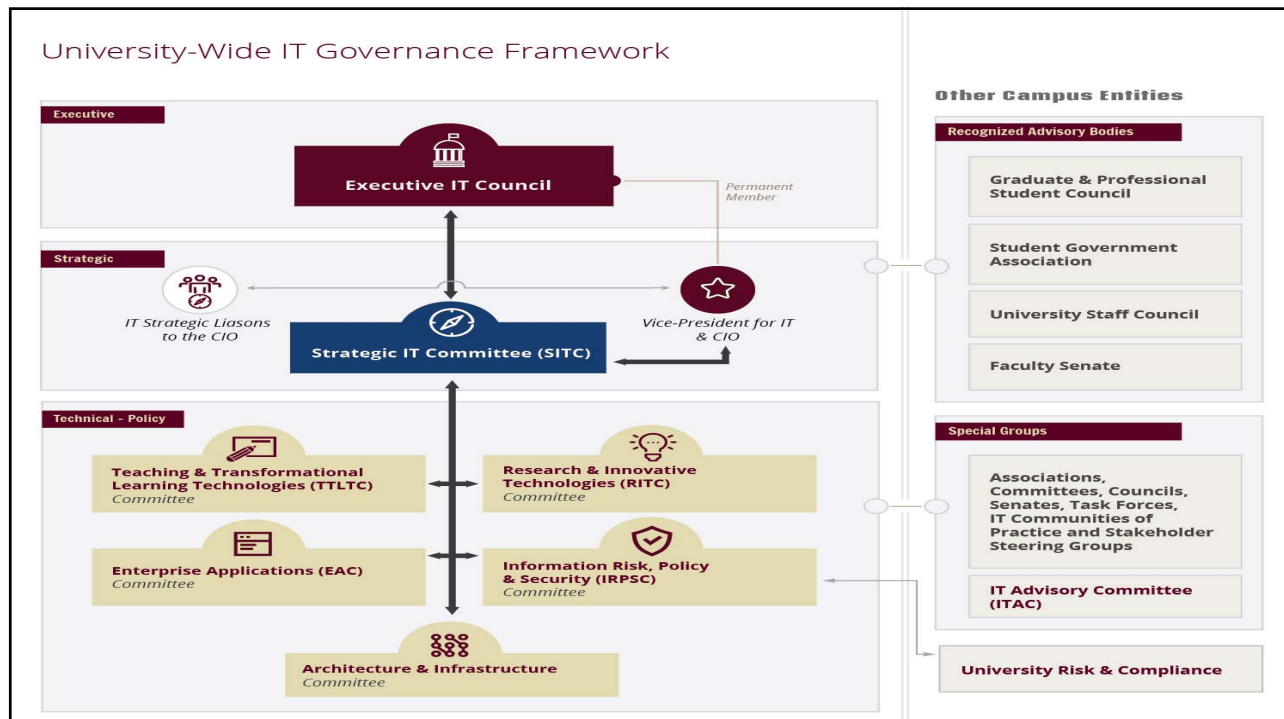
Information Risk, Policy, and Security Committee

- Dr. Jane Bolin
- Dr. Bruce Herbert

*CPI designated representative on highest committee



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The New IT Governance Program

- Established Sept 22, 2017
- 6 Committees and 1 Executive Council (President, Provost, CFO, CIO, VP-Academic Services)
- 88 Appointees composed of faculty, staff, and students
- 4 meetings per committee since kick-off
- At least 7 CPI Members throughout the Program with one designated CPI representative at the highest committee (SITC)



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Research & Innovative Technologies Committee (RITC) Members

PERMANENT VOTING MEMBERS (VOTING)

Dr. Susan Bloomfield	Associate Dean Representative (Chairperson)
Aaron Brender	Research IT Professional (Parliamentarian)
Dr. Ramalingam Saravanan	Council of Principal Investigators Representative
Paula Sullenger	University Research Council Member
Dr. Honggao Liu	High-Performance Computing Representative
Sean Michaelson	Division of IT Representative
Dr. Narasimha Annapareddy	Executive Advisory Council on Core Facilities Representative
Dr. Michael Bishop	Center and Institute Directors Council Representative
Dr. Venky Shankar	Faculty Researcher Representative
Dr. Pierce Cantrell	Faculty Researcher Representative
Dr. Hye-Chung Kum	Faculty Researcher Representative
Dr. Michael Hall	Faculty Researcher Representative
Dr. Chris Seabury	Faculty Researcher Representative
Cheryl Cato	Division of IT - Associate Vice President & Chief Technology Officer

EX-OFFICIO MEMBERS (NON-VOTING)

Dr. Mark A. Barteau	Vice President for Research
M. Dee Childs	Vice President for IT & Chief Information Officer



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Research & Innovative Technologies Committee (RITC)

Overall Charge

The Research & Innovative Technologies Committee (RITC) provides input for the research mission of Texas A&M University by reviewing, evaluating and recommending strategies, plans and policies regarding IT projects and services that support research by faculty and students. The committee solicits input from key stakeholders and constituencies across the campus to ensure that institutional needs are being met in regards to technologies needed to support campus research activities.

First Year Committee Objectives

- Conduct survey of TAMU researchers to understand research IT needs.
- Create plans to position Texas A&M University as a premier research institution.
- Defining and exploring funding models for computing based on peer benchmarking.




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Cybersecurity



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WHAT IF?
BLAG
STORE
ABOUT




A WEBCOMIC OF ROMANCE, SARCASM, MATH, AND LANGUAGE.

XKCD UPDATES EVERY MONDAY, WEDNESDAY, AND FRIDAY.


SECURITY QUESTION

<
< PREV
 RANDOM
 NEXT >
>

-EMAIL ACCOUNT SETUP- TO VERIFY YOUR IDENTITY, WE NEED TO ASK YOU A QUESTION NOBODY ELSE COULD ANSWER.




Q: WHERE ARE THE BODIES BURIED?
A: BEHIND THE



BEHIND THE ...NICE TRY.

DAMN.



A look at Security in 2017/2018

Every 24 Hours



Category	Value
Secured Over 4 Million Wi-Fi sessions	Over 4.9 Million malicious emails detected and blocked
142 Thousand virus downloads detected and blocked	A Petabyte of data inspected
7.4 Million connections to malicious sites detected and blocked	5.8 Million emails inspected for malicious content

Highlights

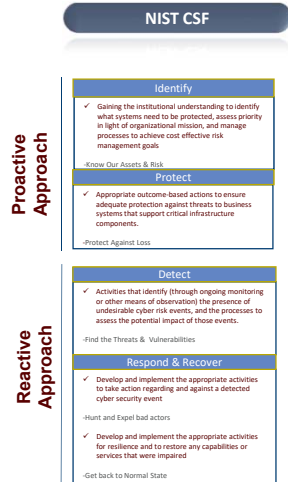
-  Transitioned services containing "confidential information" to DUO
-  Expanded Network Monitoring Footprint
-  Innovative Cybersecurity Awareness Month Activities
-  Increased Insight into Malicious Attacks
-  Implemented Data Center Firewalls
-  Launched IT Policy Web Site
-  Developed new Risk Assessment Process and Survey Methodology



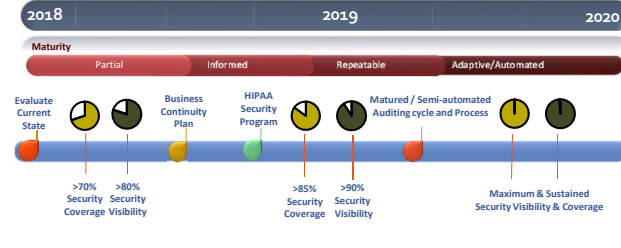
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Looking Ahead

Framework



Strategy



2018/2019 Focus Areas

- ✓ Cybersecurity Advancements in Healthcare
- ✓ Data Security
- ✓ Creating A World Class Security and IT Risk Management
- ✓ Innovation, Research, and Talent Pipeline
- ✓ Excellence in Healthcare Security and Privacy



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West Campus Data Center

- Reliability of a Tier 4 data center – redundant power & network
- Operationally AND security staffed 24x7x365
- 7 layers of Physical Security
- Pre-positioned, co-lo, build-to-suit & Aggie cloud options available late 2017-early 2018
- LEED certified & supplies power back to the grid
- Working with President, Provost & CFO on additional investments for excellence



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Increase Research Competitiveness



- Position capacity ahead of demand. Leapfrog investments. Augment internal investment (HPC & storage for example with infrastructure grants (NSF/NIH).
- Prioritize decreased costs for using the West Campus Data Center resources (for example on Sept. 1 raw storage costs will drop by 400% to .25/GB (was \$1.00/GB)
- Increase research computing staff member engagement with faculty to help plan their technology needs during the development of research proposals.
- Address security risks appropriately for the sensitivity of research data.
- Understand impact/unintentional consequences of current incentives (e.g., startup packages, RDF). Optimize our own environment for success.
- Optimize use of Free national compute resources (XSEDE, Jetstream, DOE funded, etc.)
- Explore national trends such as the Pacific Research Platform
- Optimize end-to-end data transfer so we can use other resources & secure fast data transfers



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TAMUS Regulation 29.01.03 - 5.1

The security of information that is classified as **Confidential** under the Data Classification Standard, referenced under this regulation, is an important information asset to information owners, custodians, and to the system overall. As such, **each member shall provide an additional cybersecurity protocol and service to protect this kind of information through the use of Multi-Factor Authentication (MFA)**. This will ensure that only appropriate individuals have access to confidential information. Requests for 29.01.03 Information Security Page 5 of 6 exceptions to inclusion in the use of MFA must be approved in advance by and reported annually to the TAMUS Chief Information Security Officer.

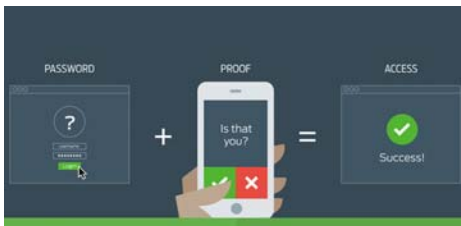


Image Source: Shetty, Sudheesh. (2018). CodeCamp. Retrieved from: <https://medium.freecodecamp.org/how-to-make-authentication-easier-with-json-web-token-cc56f37228>



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TAMUS Regulation 29.01.03 - 5.2

Each member shall consolidate all of its significant IT equipment into a centralized member data center(s) or approved commercial data center as soon as practically possible but **no later than September 1, 2019**. "Significant IT equipment" includes, but is not limited to, mass storage, large/complex computational environments, most virtualized or physical-based servers, and any other internet exposed services. **A member may request exceptions for certain equipment, such as specialized lab or research equipment.** Each centralized member data center shall provide colocation services and fully managed services for member departments and units. At a minimum, each data center must have: redundant power delivery, redundant networks, redundant cooling, and physical and cybersecurity, and may also provide operating system setup and administration (including virtualized), backup and recovery, storage management, configuration and patch management, and other managed services. **All requests for exceptions to the requirements of this section, including requests to extend the deadline, must be approved in advance by the chancellor and reported on an annual basis to the SCISO.**



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Advisory Committee Members Sought to...



- Provide clarification of "significant IT equipment" for presentation to the TAMUS Chief Information Officer.
- Provide criteria for, and a description of, an exception process.

Send email to mdeechilds@tamu.edu



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Thank you!



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Two “Typical” Aggie Days in One

Want to meet with us? Let us know what you think! Talk to us!

Tim Lomax, t-lomax@tamu.edu

Madison Metsker-Galarza, m-metsker-galarza@tti.tamu.edu

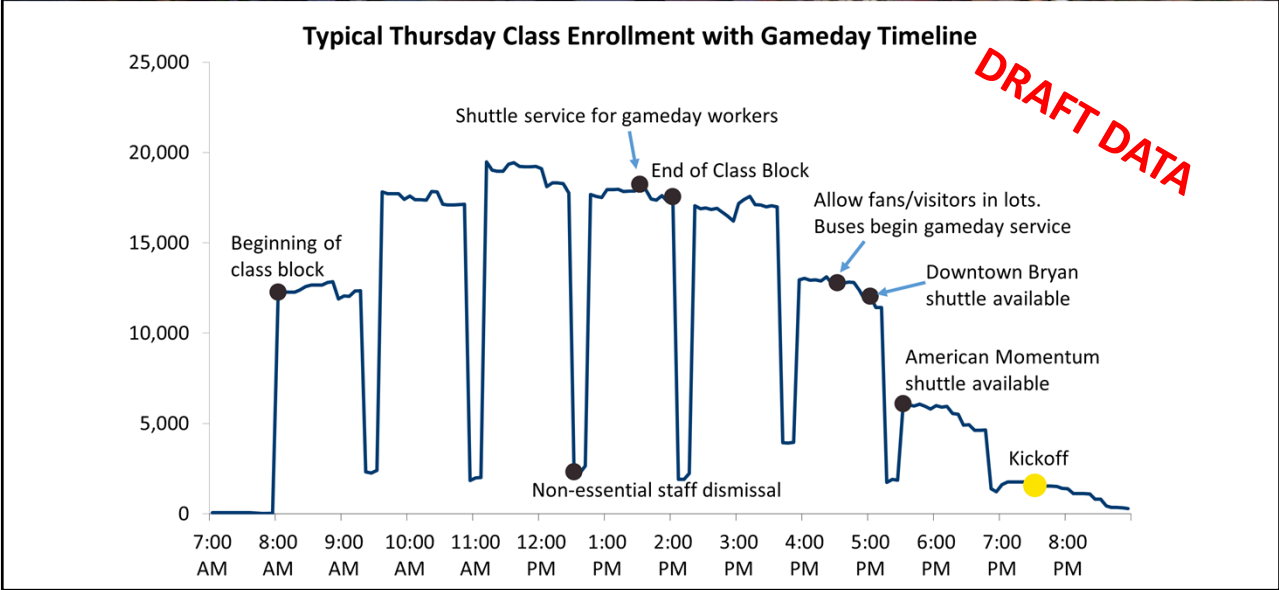
Texas A&M Transportation Institute



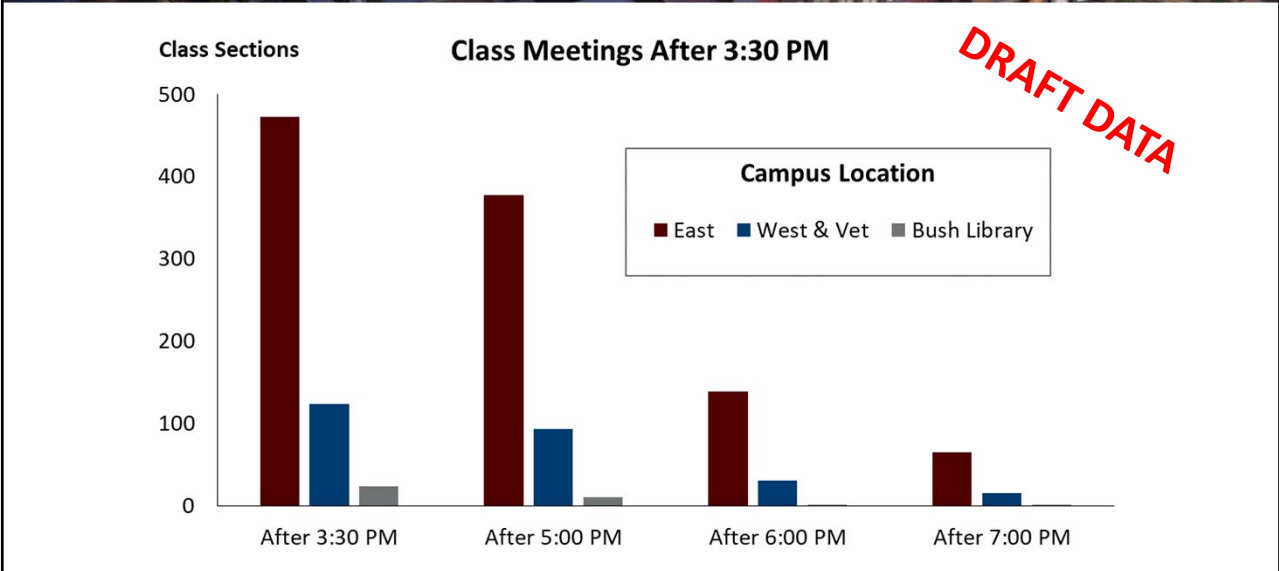
How Do WE Accomplish This?

- We WANT professors to teach class – its why we’re here.
- We WANT students to go to class – its why they’re here.
- We WANT fans to come to the game.
- Our approach: Help us, Help you
 - Plan ahead, Know your options
 - Don’t try to find a “hole” in the system – be part of the solution.
- We need to communicate early and often – one united message.
 - How do you want us to engage your community?
- Flexibility will be key – this will not be a normal day.

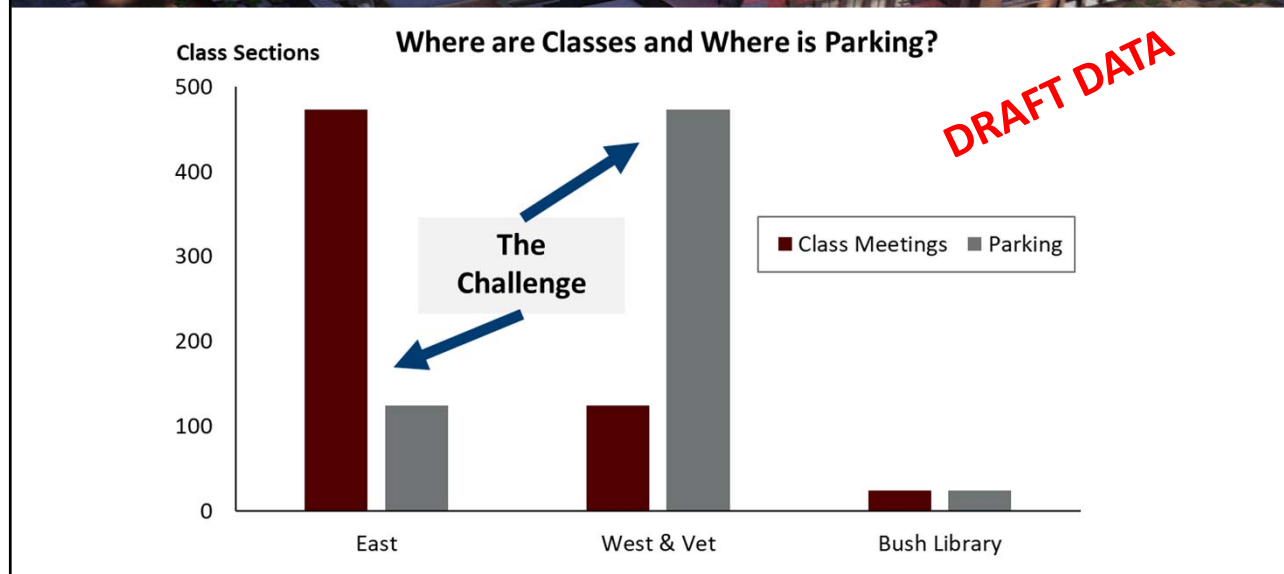
What Do "Two Typical Days in One" Look Like?



What Does a Typical Thursday Look Like After 3:35?



What Does a Typical Thursday Look Like After 3:35?



Know Your Options

- Transit
- ofo – Bike Share
- Walking
- Biking
- Uber/Lyft
- Carpool
- Gameday Locker *“Just an Idea”*



Park Once for the Whole Day

What Does Tailgating Look Like?

DRAFT IDEAS

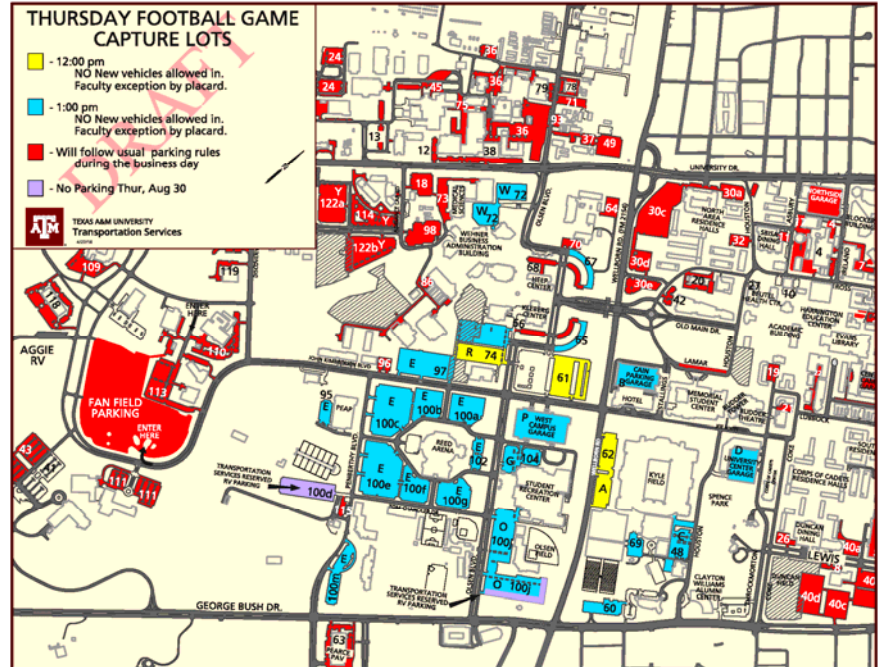
- Can load-in 7:00 pm Wednesday.
- Can tailgate at 6:00 am on gameday BUT
- Can't park near tailgates until 4:30 pm.

What Does GameTime Parking Look Like?

Yellow	= 12 th Man	10,000
Red	= Dorm & Small	Not Used
Green	= Pay	5,000
Maroon	= A&M Permit	5,000

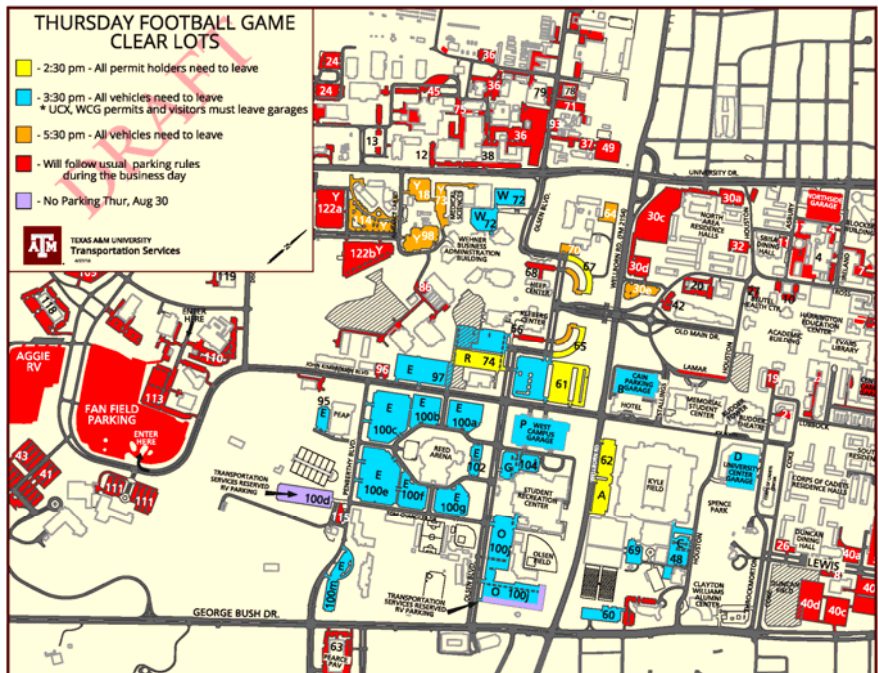
Game Thursday Parking - Capture

- Beginning in early morning - Staff will greet parkers to remind them about departure times.
- At 'capture time' staff will prohibit new vehicles except those with placards.
- Most of campus will follow usual rules during business day.



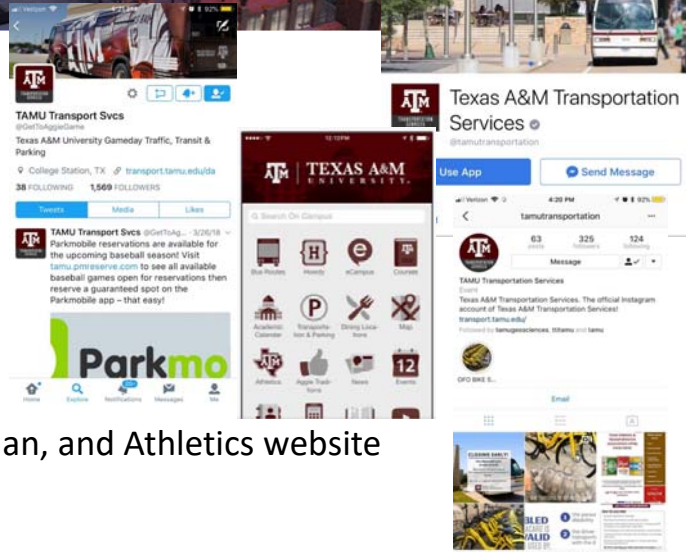
Game Thursday Parking - Clear

- Parking lots will 'breathe' – can park but may see additional vehicles.
- Vehicles in yellow lots (after 2:30) may be moved to accommodate reserved space needs.



How Do We Engage Your Community?

- Email
- Twitter
- Instagram
- Facebook
- Snapchat? “Just an Idea”
- TAMU Mobile app
- Destination Aggieland app
- Transportation Services, 12th Man, and Athletics website



Let's Talk!

- Parking
- Travel Options
- Trip Planning
- Engagement
- What did we miss?

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 Texas A&M Transportation Institute