

*Texas A&M University
Accessible Parking Study
College Station, Texas*



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Prepared for:

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EXECUTIVE SUMMARY

Introduction

Managed by the University's Transportation Services Department, the Texas A&M campus has over 33,000 parking spaces in surface lots and five (5) structured parking facilities. The University recognizes that parking is a foundational element of the campus' vitality. The total amount of parking available, its location, and how it is managed play important roles in promoting the University and attracting and accommodating students and faculty. Transportation Services is committed to providing programs and services that ensure compliance with the nondiscrimination requirements contained in¹ the Texas Accessibility Standards (TAS). With these important factors in mind, the University desires to gain a more detailed understanding of accessible parking on campus.

Accessible Parking Study Results

Total Number of Spaces Required

The total number of required accessible parking spaces based on a Zonal analysis is currently 607. The total number of accessible spaces in the study area is currently 725, therefore, from a global standpoint an adequate number of accessible parking spaces are currently provided on campus.

The majority of parking Zones on campus have adequate or excess amounts of accessible parking. In many Zones, some excess amounts of accessible parking can be reallocated to deficient Zones if demand is met by the minimum required spaces in the Zone. In other Zones, additional accessible parking needs to be added as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contract through the University Facilities Services Department. It is anticipated that Texas A&M University Transportation Services will address 25% of the identified accessible parking issues in each of the next four years, beginning in the spring of 2012.

Location of Required Accessible Parking Spaces

Based on a detailed review of the locations of current accessible parking within each Zone, it appears that the location of required accessible parking meets the requirements of the 2012 TAS. New accessible parking spaces that are required in each Zone should be placed nearest to the shortest accessible route to the building(s) they serve.

¹ From <http://transport.tamu.edu/parking/disability.aspx>

Compliance of Accessible Parking to Current Standards – Facility Surveys

Existing accessible parking spaces likely met the standards when they were installed. However, accessible parking spaces should be modified to meet current standards. Moving forward, improvements to existing accessible parking areas need to be made. Items out of compliance with current standards included the following: accessible aisles, curb ramps, signage, and excessive slope which need to be updated as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contracts through the University Facilities Services Department. It is anticipated that Texas A&M University Transportation Services will address 25% of the identified accessible parking issues in each of the next four years, beginning in the spring of 2012.

Accessible Parking Spaces Recommendations for Non-Typical Campus Events

Additional accessible parking provided during special events is allocated as an additional convenience to patrons. While these spaces are being provided as an additional convenience to patrons and even though typical campus accessible parking requirements are met, these spaces do need to comply with the 2012 TAS standards for items such as signage, accessible aisles, accessible paths, etc. An alternate approach would be to label these additional event spaces as “convenience” or “special needs” spaces and not as “accessible” spaces then they would not need to comply with TAS standards.

Ongoing Accessible Parking Improvements

Similar to the existing and ongoing parking improvement program being implemented as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contract through the University Facilities Services Department, a prioritized list of accessible parking improvements should be developed and the associated improvements placed into the ongoing capital improvement program for facility enhancements. Any proposed additions, deletions or improvements should not be made until the formal adoption of the 2012 TAS. It is anticipated that Texas A&M University Transportation Services will address 25% of the identified accessible parking issues in each of the next four years, beginning in the spring of 2012.

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INTRODUCTION

Campus Data

Opened in 1876 as Texas' first public institution of higher learning, Texas A&M University is a research-intensive flagship university with 38,000-plus undergraduates and more than 9,000 graduate students studying in over 250 degree programs in 10 colleges².

Managed by the University's Transportation Services Department, the campus has over 33,000 parking spaces in surface lots and five structured parking facilities. The University recognizes that parking is a foundational element of the campus' vitality. The total amount of parking available, its location, and how it is managed play important roles in promoting the University and attracting and accommodating students and faculty. Transportation Services is committed to providing programs and services that ensure compliance with the nondiscrimination requirements contained in³ the Texas Accessibility Standards (TAS). With these important factors in mind, the University desires to gain a more detailed understanding of accessible parking on campus.

The purpose of this Accessible Parking Study is to determine 1) if the campus has the correct total number of accessible parking spaces, 2) ensure that these accessible parking spaces are located appropriately, and 3) determine the compliance of existing accessible parking spaces to current standards. Additionally, accessible parking for non-standard campus events will be reviewed and a procedure for adding future accessible parking spaces will be developed.

The results of this study provide an assessment of accessible parking at a "snapshot in time" and as the campus continues to develop additional parking areas, buildings and public spaces, the framework of this analysis should be used and incorporated into future designs.

Study Area

The study area for the Accessible Parking Study is generally bounded by FM 2818 to the west, F&B Road/University Drive to the north, Texas Avenue to the east, and George Bush Drive to the south as illustrated in **Figure 1**. This study is limited parking areas only; no accessible paths were studied as part of this effort. Additionally, while Transportation Services buses are accessible, accessible bus stops and paths to bus stops were not studied as part of this effort.

² From <http://www.tamu.edu/about/facts/>

³ From <http://transport.tamu.edu/parking/disability.aspx>

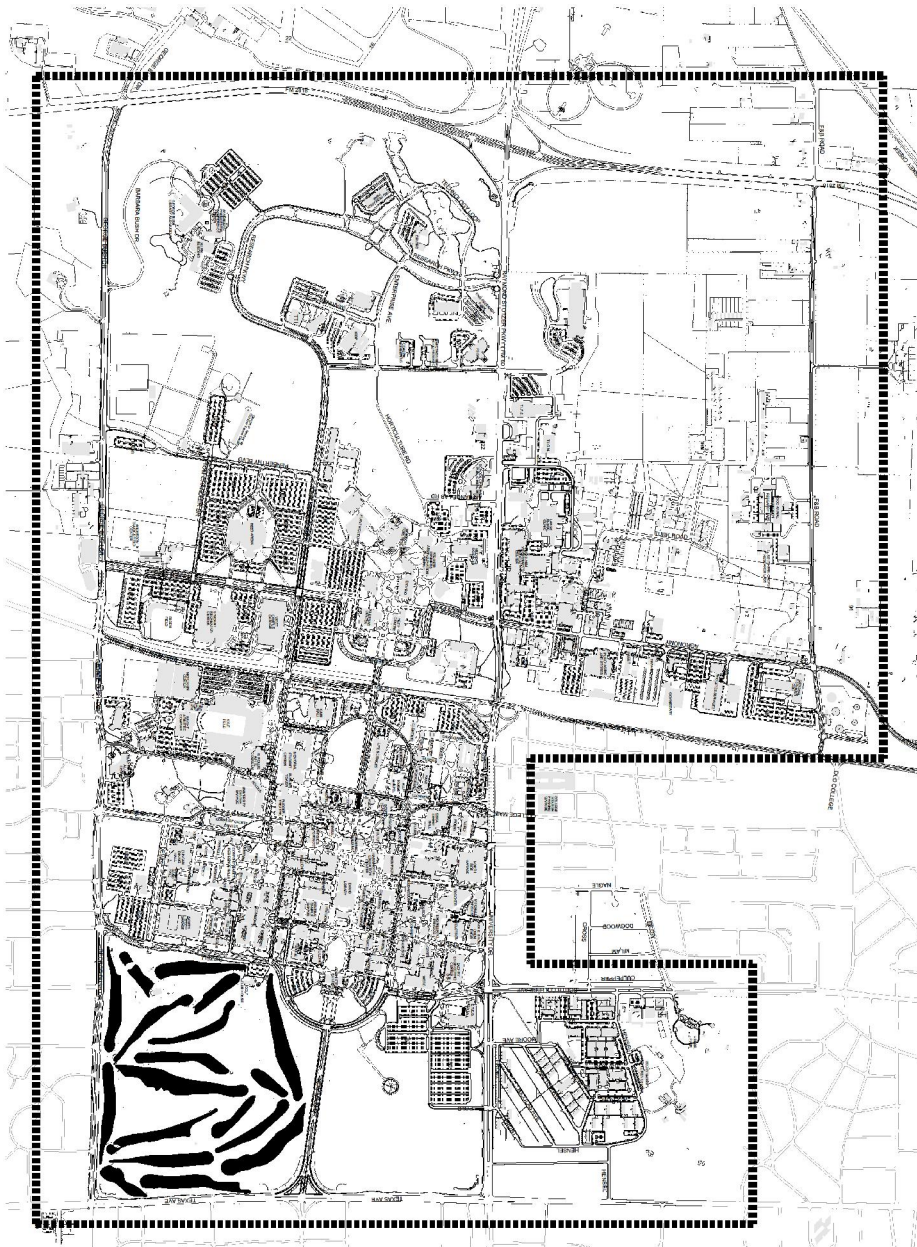


Figure 1 – Accessible Parking Study Area

State Accessibility Requirements

Accessibility standards in the State of Texas are governed by the Texas Department of Licensing and Regulation (TDLR) through the Texas Accessibility Standards (TAS). Current TAS requirements have been in effect since April 1, 1994, however a new set of TAS requirements is scheduled to be adopted on March 15, 2012. Since the public comment period for the new 2012 TAS requirements is complete, it is expected that the Draft standard published on May 26, 2011 will be adopted in its entirety. In order to provide a more complete study moving forward, the 2012 TAS requirements are used as the basis of our

analysis. Some highlighted differences between the 1994 TAS and the 2012 TAS include:

- An accessible route behind other accessible spaces is now acceptable
- Truncated dome detectible warnings on curb ramps are now only required in public rights of way and are no longer required on private property
- Van accessible parking is now required to be provide at a 1:6 ratio to total accessible parking

Definitions

These definitions are taken from the 2012 TAS requirements⁴.

Accessible: A site, building, facility, or portion thereof that complies with the 2012 TAS requirements.

Alteration: A change to a building or facility that affects or could affect the usability of the building or facility or portion thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, changes or rearrangement of the structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility.

Building: Any structure used or intended for supporting or sheltering any use or occupancy.

Cross Slope: The slope that is perpendicular to the direction of travel (see running slope).

Curb Ramp: A short ramp cutting through a curb or built up to it.

Detectable Warning: A standardized surface feature built in or applied to walking surfaces or other elements to warn of hazards on a circulation path.

Entrance: Any access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibule if provided, the entry door or gate, and the hardware of the entry door or gate.

Facility: All or any portion of buildings, structures, site improvements, elements, and pedestrian routes or vehicular ways located on a site.

Marked Crossing: A crosswalk or other identified path intended for pedestrian use in crossing a vehicular way.

Public Building or Facility: A building or facility or portion of a building or facility designed, constructed, or altered by, on behalf of, or for the use of a public entity subject to *the Texas Architectural Barriers Act, Chapter 469, Texas Government Code*.

⁴ 2012 Texas Accessibility Standards – Texas Department of Licensing and Regulation – Draft 05/26/2011

Public Way: Any street, alley or other parcel of land open to the outside air leading to a public street, which has been deeded, dedicated or otherwise permanently appropriated to the public for public use and which has a clear width and height of not less than 10 feet (3050 mm).

Ramp: A walking surface that has a running slope steeper than 1:20.

Running Slope: The slope that is parallel to the direction of travel (see cross slope).

Vehicular Way: A route provided for vehicular traffic, such as in a street, driveway, or parking facility.

Walk: An exterior prepared surface for pedestrian use, including pedestrian areas such as plazas and courts.

Data Collection

Parking data for the campus was provided by the Transportation Services Department in the form of parking counts in Microsoft Excel spreadsheet format for individual lots, streets and other defined areas. The parking data for each area was broken out by reserved, regular, visitor, timed, service, university business, accessible, loading, motorcycle and other spaces. Additionally, campus mapping data was provided in electronic CADD format for use in this study.

Kimley-Horn relied upon the accuracy and completeness of all documents, surveys, reports, plans and specifications provided by Texas A&M or by others for whom Kimley-Horn is not legally responsible. Texas A&M acknowledges that verifying the accuracy and completeness of such items is not part of the Kimley-Horn scope of services.

Field data to verify the provided locations of existing accessible parking spaces and to assess current condition of the existing accessible parking was collected on September 21, 2011. Field collected data consisted of photos and pertinent notes for each accessible parking area on campus. Additionally, accessible van and non-van parking spaces were noted. No detailed surveying of existing accessible parking areas or determination of adequacy of accessible routes to final destinations was provided as part of this study.

Ongoing Project Incorporation

In an effort to provide the most up to date information for this “snapshot in time” study, the designs of the following projects were incorporated into our analysis:

1. Engineering Technologies and Economic Development (ETED) building (Lot 51)
2. Wellborn Road grade separations (Lots 30e, 42, 49, 65 and 67)
3. Memorial Student Center (MSC) renovations (W. Lamar and Stallings Blvd.)
4. Phase II of the University Apartments
5. Northside student housing project (Lot 30b)
6. Central Campus Garage restriping

ANALYSIS

Approach

In general, accessible parking spaces for new development/redevelopment should be provided based on an individual facility basis. According to the 2012 TAS:

208.2 Minimum Number. Parking spaces complying with 502 shall be provided in accordance with Table 208.2 except as required by 208.2.1, 208.2.2, and 208.2.3. Where more than one parking facility is provided on a site, the number of accessible spaces provided on the site shall be calculated according to the number of spaces required for each parking facility.

Advisory 208.2 Minimum Number. The term “parking facility” is used Section 208.2 instead of the term “parking lot” so that it is clear that both parking lots and parking structures are required to comply with this section. The number of parking spaces required to be accessible is to be calculated *separately* for each parking facility; the required number is not to be based on the total number of parking spaces provided in all of the parking facilities provided on the site.

For the Texas A&M University campus, the “site” as defined above could be considered the entire study area defined by **Figure 1**. Since there are over 170 parking facilities defined for the campus within the study area, calculating the number of accessible spaces separately for each facility would provide a significant overabundance of accessible parking on campus. Additionally, provided parking is not normally adjacent to the buildings it is intended to serve like more traditional single user sites. A more reasonable and acceptable approach is to divide individual areas of campus into parking “Zones” and then define each “Zone” as its own “site”. These Zones are logically grouped individually defined parking areas on campus. Then, total accessible parking is calculated and provided for each Zone based on the guidelines of the 2012 TAS requirements using each Zone’s own individually defined parking areas. Using this methodology, a well-balanced and widespread supply of accessible parking is provided for the entire campus. If each lot was considered individually, in theory the required accessible parking spaces could be placed anywhere on campus (within reason). Using the Zonal approach, the required accessible parking in each Zone would be placed in that Zone. Therefore, by analyzing each Zone individually and by provided the resulting required accessible parking within that Zone, a widespread amount of accessible parking spaces is ensured. This in turn provides greater access to buildings and facilities for parkers utilizing accessible spaces. Also, this approach gives a logical framework to adding accessible parking required by future projects. Additional credibility for this analysis is warranted since the observed occupancy of campus-wide accessible parking spaces during the field data collection time (a peak weekday with classes in session) was observed to be less than 50%.

Assumptions

The approach defined above utilizes the following assumptions:

1. Service spaces do not need to be used to calculate total number of spaces within a Zone – 2012 TAS 208.1 Exception
2. Loading Zone spaces do not need to be used to calculate total number of spaces within a Zone – 2012 TAS 208.1 Exception
3. Motorcycle spaces do not need to be used to calculate total number of spaces within a Zone
4. Parking structures will be defined as their own Zone to provide equivalent covered accessible parking spaces
5. Accessible parking spaces calculated for each Zone will be provided within that Zone
6. Within a Zone containing Visitor parking, the number of accessible parking spaces required will be calculated individually for the designated visitor parking area to ensure an appropriate number of visitor accessible parking spaces are provided
7. Within a Zone containing campus housing, one (1) accessible parking space shall be provided for each accessible housing unit (whether the unit has multiple beds or not)
8. An accessible parking user can park in any non-visitor accessible parking space provided they have a state issued accessible parking placard and a valid campus parking permit displayed
9. An accessible parking user can park in any visitor accessible parking space provided they have a state issued accessible parking placard displayed. Visitors utilizing accessible parking spaces must still pay for parking using designated pay stations

Zonal Definitions

Using the approach and assumptions above, the campus was divided into 52 individual Zones as defined by **Figure 2**.



Figure 2 – Accessible Parking Study Zones

Zonal Analysis

The number of accessible parking spaces required by Zone can be determined from the 2012 TAS Table 208.2 as follows:

Total Number of Parking Spaces Provided in Parking Facility	Minimum Number of Required Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1,000

Table 1 – Accessible Parking Requirements per the 2012 TAS

Additionally, according to the 2012 TAS:

208.2.4 Van Parking Spaces. For every six or fraction of six parking spaces required by 208.2 to comply with 502, at least one shall be a van parking space complying with 502.

Using these requirements, each Zone was analyzed individually and the total number of accessible spaces (van and non-van) was determined, the results of which are outlined in **Appendix A**.

Using this Zonal approach, the total number of required accessible parking spaces is 607. The total number of accessible spaces in the study area is currently 725; therefore, from a global standpoint an adequate number of accessible parking spaces are currently provided on campus. If each lot was analyzed individually, 823 accessible parking spaces would be required.

The majority of parking Zones on campus have adequate or excess amounts of accessible parking. In many Zones, some amount of accessible parking can be reallocated to deficient Zones if demand is met by the minimum required spaces in the Zone. In other Zones, additional accessible parking needs to be added as indicated in **Table 2**.

Zone	Additional Number of Required Accessible Parking Spaces
Engineering Zone	4 (Under Zachry)
Engineering Zone Lot 51	4 (Visitor Only)
Library Zone	7
Northside Zone	6
Life Sciences Zone	5
Agriculture Building Zone	8 (2 for Visitors)
Purchasing Zone	6
Bio Control Zone	1 (Van)
Fleet/Transit Zone	1 (Van)
Commissary Zone	2
Facilities Services Zone	3
UPD Zone	1
Technology Loop	4
Grounds Lot 89	3
Academic Zone - Lot 28	1
Heep Zone – Lot 64	1
Golf Lot	1
Central Campus Parking Garage	3
Southside Parking Garage	28
University Center Parking Garage	12 (9 for Visitors)
Northside Parking Garage	20 (6 for Visitors)
West Campus Parking Garage	3
Total Additional Spaces Required	124

Table 2 – Required Additional Accessible Parking by Zone

Location of Required Accessible Parking Spaces

According to the 2012 TAS:

208.3.1 General. Parking spaces complying with 502 that serve a particular building or facility shall be located on the shortest accessible route from parking to an entrance complying with 206.4. Where parking serves more than one accessible entrance, parking spaces complying with 502 shall be dispersed and located on the shortest accessible route to the accessible entrances. In parking facilities that do not serve a particular building or facility, parking spaces complying with 502 shall be located on the shortest accessible route to an accessible pedestrian entrance of the parking facility.

EXCEPTIONS:

1. All van parking spaces shall be permitted to be grouped on one level within a multi-story parking facility.
2. Parking spaces shall be permitted to be located in different parking facilities if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances, parking fee, and user convenience.

Parking facilities within a Zone typically serve multiple buildings within that Zone. Based on a review of the locations of current accessible parking within each Zone, it appears that the required accessible parking generally meets the requirements of the 2012 TAS. New accessible parking spaces that are required in each Zone should be placed nearest to the shortest accessible route to the building(s) they serve. Three (3) lots were identified where it may be warranted to add a single accessible parking space based on the requirements of 208.3.1. Lot 64 in the Heep Zone, Lot 28 in the Academic Zone and Lot 23 in the Library Zone are single individualized or controlled lots where an accessible space may be warranted. These three (3) spaces have been shown as being required in **Table 2**.

Van Accessible Parking Spaces

According to the 2012 TAS:

208.2.4 Van Parking Spaces. For every six or fraction of six parking spaces required by 208.2 to comply with 502, at least one shall be a van parking space complying with 502.

Field collected data indicates that for a majority of the parking Zones, the 1:6 van ratio currently exists. Two Zones were noted to have deficient van accessible parking based on the requirements of the 2012 TAS. The Bio Control Zone and the Fleet/Transit Zone each need one additional van accessible parking space to meet the new requirements. These two (2) spaces have been shown as being required in **Table 2**. Additionally, the challenge of including additional van accessible spaces in the parking structures is described next.

Parking Structures

Because of the large amount of concentrated parking within the five campus parking structures (and the structured parking under the Zachry Building), each structure is considered its own individual parking Zone. Using this assumption, the equivalency of premium accessible covered parking (protection from weather) will also be met. Using the Zonal analysis results in **Appendix A**, the five parking structures (and the structured parking under the Zachry Building) need additional accessible parking spaces as indicated in **Table 2**.

Van accessible parking spaces required should also meet the 1:6 van ratio, however 4 of the 5 parking structures do not currently have enough clear height to meet the 8'-2" van clearance requirements. Van accessible parking spaces meeting the other requirements (wider accessible aisles, etc.) should be added in the parking structures with the understanding that the vertical clearance height requirement of 8'-2" cannot be met.

Student Housing Areas

According to the 2012 TAS one (1) accessible parking space must be provided for each residential accessible dwelling unit:

208.2.3.1 Parking for Residents. Where at least one parking space is provided for each residential dwelling unit, at least one parking space complying with 502 shall be provided for each residential dwelling unit required to provide mobility features complying with 809.2 through 809.4.

As seen in **Table 3**, the Texas A&M University Campus has accessible dwelling student housing units in the Northside, Southside and Sbisa Zones of campus.

Zone	Number of Accessible Campus Residential Units
Northside Zone – Northside Dorm	26
Northside Zone - Clements	2
Northside Zone - Haas	3
Northside Zone - Hughes	1
Northside Zone - Keathley	2
Northside Zone - Lechner	3
Northside Zone - McFadden	2
Northside Zone - Moses	1
Northside Zone - Schumacher	2
Total for Zone	42
Sbisa Zone - Hobby	2
Sbisa Zone - Neeley	2
Total for Zone	4
Southside Zone - Appelt	3
Southside Zone - Aston	4
Southside Zone – Dunn	4
Southside Zone - Eppright	3
Southside Zone - Krueger	2
Southside Zone - Rudder	3
Southside Zone - Underwood	2
Southside Zone - Wells	3
Total for Zone	24

Table 3 – Accessible Dwelling Units by Zone

In reviewing the information in **Appendix A**, the Southside and Sbisa parking Zones contain adequate accessible parking spaces to serve the number of accessible dwelling student housing units. The Northside parking Zone contains 36 accessible parking spaces and 42 accessible dwelling units, so an additional six (6) accessible parking spaces should be added in this Zone. These additional six (6) spaces are indicated in **Table 2**.

Visitor Parking

Currently on campus, visitor parking is provided in the Northside Parking Garage, the Central Campus Parking Garage, the University Center Parking Garage, Lot 47, Lot 61, Lot 100h, Lot 100j, Lot 100g, Lot 100d, Lot 97, Lot 72a, Lot 72b, Lot 74 and Lot 88. Where visitor parking is provided, an amount of accessible parking calculated based on the amount of visitor parking in the area must also be provided as outlined in **Table 4**. Visitors utilizing accessible parking spaces must still pay for parking using designated pay stations. Visitor accessible parking signage should not indicate that a valid TAMU permit is required to parking in the space. In the case of most visitor areas, the amount of appropriate visitor parking is provided, however, additional accessible visitor parking spaces need to be provided per **Table 2**.

Visitor Parking Area	Total Number of Visitor Parking Spaces Provided	Minimum Number of Required Visitor Accessible Parking Spaces	Number of Additional Visitor Accessible Parking Spaces Needed
Northside Garage	159	6	6 of 20 Total per Table 2
Central Campus Garage	584	12	3 per Table 2
University Center Garage	428	9	9 of 12 per Table 2
Lot 51	69	3	4 per Table 2
Lot 61	24	1	0
Lot 72 a & b	344	8	0
Lot 74	37	2	0
Lot 88	785	16	0
Lot 97	22	1	1 of 8 Total per Table 2
Lot 100d	336	8	0
Lot 100g	315	8	0
Lot 100h	61	3	0
Lot 100j	921	19	0

Table 4 – Visitor Parking Accessible Parking Requirements

Special Events

Campus standard procedures provide additional accessible parking spaces for events including football, basketball, soccer, softball and baseball game days, graduation, 4th of July, etc. During these events, portions of existing parking areas are converted to accessible parking only with credentials being checked and access being granted by game day parking operations personnel. During these events, access is only granted to these areas to persons with proper accessible credentials. While these spaces are being provided as an additional convenience to patrons and even though typical campus accessible parking requirements are met, these spaces do need to comply with the 2012 TAS standards for items such as signage, accessible aisles, accessible paths, etc. An alternate approach would be to label these additional event spaces as “convenience” or “special needs” spaces and not as “accessible” spaces then they would not need to comply with TAS standards.

Compliance of Existing Accessible Parking to Current Standards

On September 21, 2011 field data was collected for each area of accessible parking within the Study Area. Accessible parking areas found to be out of compliance with current standards were photo documented and can be found in **Appendix B**.

Generally speaking, improvements need to be made to existing accessible parking areas. Items out of compliance with current standards include: accessible aisles, curb ramps, signage, and excessive slope. A graphical representation of areas in compliance and out of compliance can be seen in **Figure 3**.

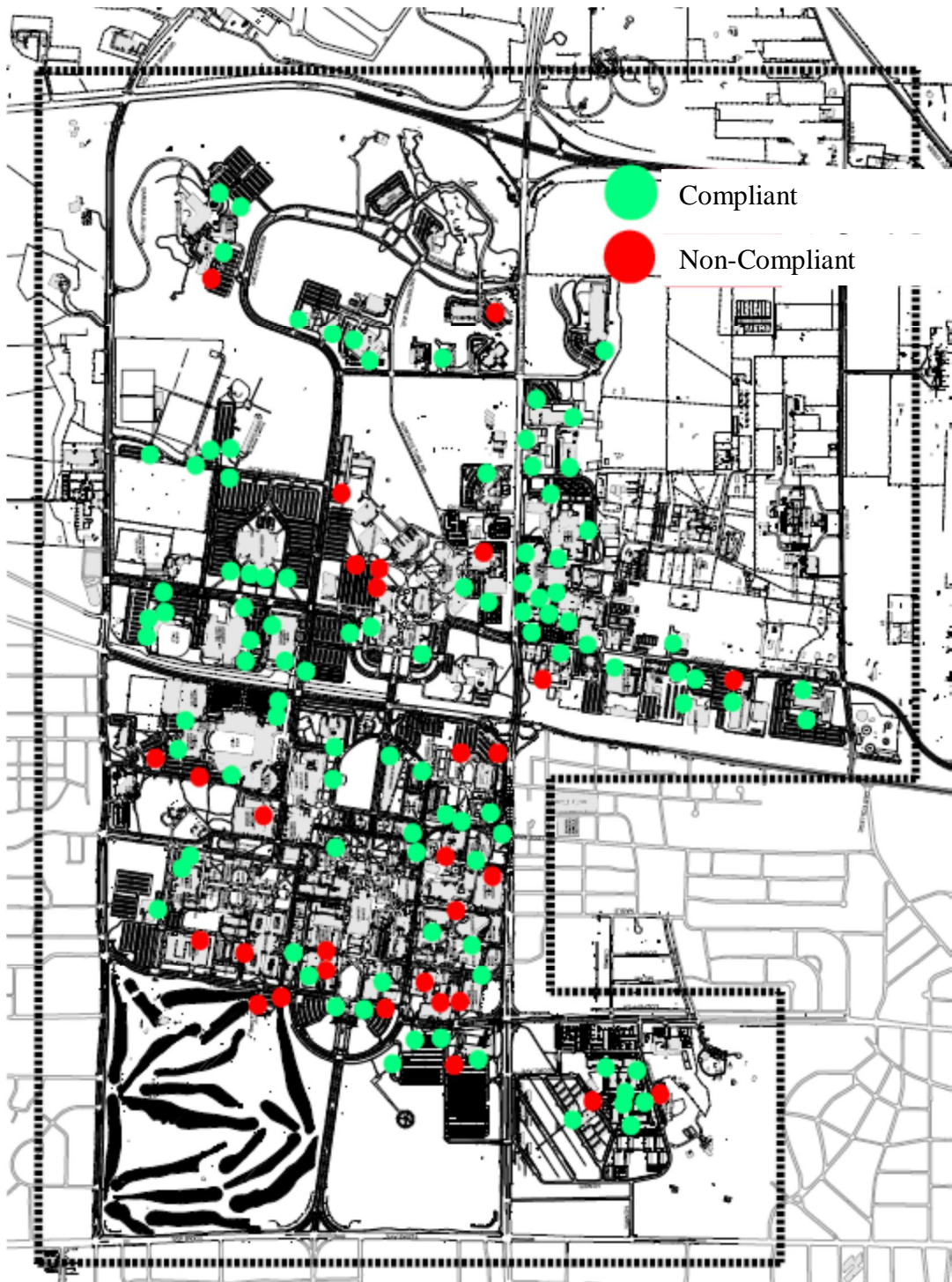


Figure 3 – Graphical Accessible Parking Compliance

PROPOSED MODIFICATIONS

Approach

Existing accessible parking spaces likely met the standards when they were installed, and practically speaking accessible parking spaces can be shared across Zonal boundaries, therefore there is no immediate need to add or modify the current supply of accessible parking spaces. Rather, a detailed and methodical approach to updating the campus wide accessible parking should be implemented. This implementation should be an extension of the ongoing parking improvement program being implemented as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contract through the University Facilities Services Department. Any proposed additions, deletions or improvements should not be made until the formal adoption of the 2012 TAS. It is anticipated that Texas A&M University Transportation Services will address 25% of the identified accessible parking issues in each of the next four years, beginning in the spring of 2012.

Proposed Additions

The addition of proposed accessible parking spaces (see **Table 2**) should be completed as capital improvements as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contract through the University Facilities Services Department. As surface lots and parking structures undergo rehabilitation, modifications, expansions, or replacements the additional accessible spaces will be incorporated. It is expected that all proposed additions outlined in **Table 2** will be implemented in the next four years, beginning in the spring of 2012.

Proposed Reallocations

In many Zones where a surplus of accessible parking spaces is provided, some amount of accessible parking can be reallocated to deficient Zones if demand is met by the minimum required spaces in the Zone. These modifications can be implemented as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contract through the University Facilities Services Department.

Proposed Improvements

According to the 2012 TAS:

106.5.25 Disproportionality. Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20% of the cost of the alteration to the primary function area. Costs that may be counted as expenditures required to provide an accessible path of travel may include:

- (i) Costs associated with providing an accessible entrance and an accessible route to the altered area, for example, the cost of widening doorways or installing ramps;
- (ii) Costs associated with making restrooms accessible, such as installing grab bars, enlarging toilet stalls, insulating pipes, or installing accessible faucet controls;
- (iii) Costs associated with providing accessible telephones, such as relocating the telephone to an accessible height, installing amplification devices, or installing a text telephone (TTY); and
- (iv) Costs associated with relocating an inaccessible drinking fountain.

All determinations of disproportionality are made by the Department in accordance with the variance procedures contained in Chapter 68, Texas Administrative Code.

106.5.30 Facility. All or any portion of buildings, structures, site improvements, elements, and pedestrian routes or vehicular ways located on a site.

202.4 Alterations Affecting Primary Function Areas. In addition to the requirements of 202.3, an alteration that affects or could affect the usability of or access to an area containing a primary function shall be made so as to ensure that, to the maximum extent feasible, the path of travel to the altered area, including the *parking areas*, rest rooms, telephones, and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities, unless such alterations are disproportionate to the overall alterations in terms of cost and scope. For purposes of ensuring compliance with requirements of the Texas Architectural Barriers Act, all determinations of maximum extent feasible and disproportionality are made by the Department in accordance with the variance procedures contained in Chapter 68, Texas Administrative Code.

For accessible parking spaces that do not meet the current 2012 TAS standards, a determination must first be made whether or not the required improvements are disproportionate to the overall proposed improvements to the area. For items which are not deemed disproportionate, improvements will be implemented as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contract through the University Facilities Services Department. It is expected that all proposed improvements outlined in **Appendix B** will be implemented in the next four years, beginning in the spring of 2012.

Procedures for Adding Future Accessible Parking

When new parking areas are constructed, rehabilitated, modified, removed or replaced, the amount of accessible parking within the affected Zone must be recalculated to determine if the area is still in compliance with the required number of spaces. A general procedure for this analysis is as follows:

1. Determine the new total number of spaces in the affected Zone
 - a. NOTE: The supply of parking in each Zone will be based on the Campus Parking Demand Model (studied in a separate report) and will be updated as new capital projects are implemented.
2. Determine the number of required spaces (van and non-van) using **Table 1** based on the total number of spaces in the Zone
3. Verify the number of spaces determined from 2. above is adequate for Zones containing Student Housing (1 accessible space required for each accessible residential unit)
4. Verify the number of spaces determined from 2. above is adequate for Zones containing Visitor Parking (number of visitor accessible spaces must be determined from total number of visitor spaces in a Zone using **Table 1**)
5. Determine the net surplus (or deficit) of accessible parking within the Zone (total number of accessible spaces – total number of required accessible spaces)
6. Place new or relocate existing accessible parking spaces per determination above at the shortest accessible route to the facilities they serve

Conclusions

Since an overabundance of accessible parking spaces currently exist on campus, these spaces likely met the standards when they were installed, and practically speaking, accessible parking spaces can be shared across Zonal boundaries, there is no immediate need to add or modify the current supply of accessible parking spaces. The total number of required accessible parking spaces based on a Zonal analysis currently equals 607. The total number of accessible spaces in the study area is currently 725.

The majority of parking Zones on campus have adequate or excess amounts of accessible parking. In many Zones, some amount of accessible parking can be reallocated to deficient Zones if demand is met by the minimum required spaces in the Zone. In other Zones, additional accessible parking needs to be added. This additional accessible parking should be added as capital improvements when new building or built or when renovations occur or as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contract through the University Facilities Services Department. It is anticipated that Texas A&M University Transportation Services will address 25% of the identified accessible parking issues in each of the next four years, beginning in the spring of 2012.

Next Steps

Similar to the existing and ongoing parking improvement program being implemented as part of an ongoing Multi-Task Professional Architectural/Engineering Services On-Call contract through the University Facilities Services Department, a prioritized list of accessible parking improvements should be developed and the associated improvement placed into the ongoing capital improvement program for facility enhancements.

Appendix A:

Accessible Parking Zonal Summary

Zone Name	Reserved	Regular	Visitor	Timed	U.B.	HC	Other	Total	Van HC Req'd	HC Req'd	Total HC	HC Zone+/-
University Apartments Zone	0	1241	0	1	0	23	25	1290	4	19	23	0
Engineering Zone	273	2083	69	5	13	31	0	2474	6	29	35	-4
Lot 057	38	0	0	0	0	4	0	42				
Lot 058	80	0	0	0	0	0	0	80				
Lot 014	24	0	0	0	0	3	0	27				
Lot 029	39	0	0	0	0	2	0	41				
Lot 050	0	1371	0	0	0	6	0	1377				
Lots 47/51	92	712	69	0	0	4	0	877				
N Spence Timed	0	0	0	5	0	12	0	17				
N Spence UB	0	0	0	0	13	0	0	13				
Blocker Zone	76	0	0	4	7	41	0	128	1	4	5	36
Lot 005	20	0	0	0	0	19	0	39				
Lot 007	52	0	0	0	0	6	0	58				
Ireland St Timed Spc	0	0	0	4	0	0	0	4				
Ireland St UB Spc	0	0	0	0	7	0	0	7				
Ireland Street	0	0	0	0	0	16	0	16				
Halbouty LZ	4	0	0	0	0	0	0	4				
Administrative Zone	189	450	0	1	0	26	0	666	3	11	14	12
Lot 016	18	0	0	0	0	1	0	19				
Lot 054	32	208	0	0	0	8	0	248				
Lot 015	135	0	0	0	0	11	0	146				
Lot 055	0	242	0	0	0	0	0	242				
Archit Mall Loading Zone	0	0	0	0	0	2	0	2				
Central Spence - Teague	4	0	0	0	0	4	0	8				
New Main Dr	0	0	0	1	0	0	0	1				
Library Zone	209	11	0	0	0	0	0	220	2	5	7	-7
Lot 022	41	0	0	0	0	0	0	41				
Lot 006	94	0	0	0	0	0	0	94				
Lot 023	74	0	0	0	0	0	0	74				
Lot 053	0	11	0	0	0	0	0	11				
CCG Level 1	0	57	0	0	0	0	0	57				
CCG Level 2	0	63	0	0	0	0	0	63				
CCG Level 3	0	83	0	0	0	2	0	85				
CCG Level 4	0	85	0	0	0	2	0	87				
CCG Level 5	0	80	0	0	0	2	0	82				
CCG Level 6	1	82	0	0	0	2	0	85				
CCG Level 7	0	82	0	0	0	1	0	83				
CCG Level 8	0	42	0	0	0	0	0	42				
CCPG Zone	1	574	0	0	0	9	0	584	2	10	12	-3
Southside Zone	52	1239	0	36	0	29	0	1356	4	20	24	5
Lot 031	8	0	0	0	0	0	0	8				
Lot 008	36	0	0	0	0	2	0	38				
Lot 040a	6	68	0	7	0	0	0	81				
Lot 040b	0	535	0	0	0	0	0	535				
Lot 040c	0	238	0	0	0	0	0	238				
Lot 040d	0	351	0	0	0	0	0	351				
Lot 026	0	37	0	13	0	2	0	52				
Lot 034	0	10	0	0	0	1	0	11				
Lewis Street	0	0	0	3	0	0	0	3				
Lot 035	0	0	0	0	0	20	0	20				
Mosher Lane	2	0	0	13	0	4	0	19				
SSG Level 1	0	414	0	0	0	0	0	414				
SSG Level 2	0	502	0	0	0	2	0	504				
SSG Level 3	0	519	0	0	0	0	0	519				

Zone Name	Reserved	Regular	Visitor	Timed	U.B.	HC	Other	Total	Van HC Req'd	HC Req'd	Total HC	HC Zone+/-
SSG Level 4	0	539	0	0	0	0	0	539				
SSPG Zone	0	1974	0	0	0	2	0	1976	5	25	30	-28
Bright Athletic Zone	40	591	0	13	0	23	0	667	3	11	14	9
Lot 048	4	432	0	3	0	15	0	454				
Lot 046	0	55	0	4	0	3	0	62				
Lot 059	0	16	0	0	0	1	0	17				
Lot 060	32	5	0	0	0	0	0	37				
Read Circle	0	0	0	6	0	0	0	6				
Lot 069	4	83	0	0	0	4	0	91				
UCG Level 1 Priority	45	0	44	0	0	0	0	89				
UCG Level 1 Visitor	9	0	278	0	0	9	0	296				
UCG Level 2	134	18	150	0	0	0	0	302				
UCG Level 3	111	207	0	0	0	0	0	318				
UCG Level 4	0	314	0	0	0	4	0	318				
UCG Level 5	0	173	0	0	0	0	0	173				
UCPG Zone	299	712	472	0	0	13	0	1496	5	20	25	-12
Academic Zone	146	44	0	0	0	18	14	222	2	5	7	11
Lot 019	23	44	0	0	0	2	0	69				
Lot 021	33	0	0	0	0	0	0	33				
Lot 027	3	0	0	0	0	2	14	19				
Lot 028	49	0	0	0	0	0	0	49				
Lot 010	38	0	0	0	0	14	0	52				
NSG Level 1 Priority	41	0	0	0	0	0	0	41				
NSG Level 1 Visitor	0	0	159	0	0	5	0	164				
NSG Level 2	310	0	0	0	0	0	0	310				
NSG Level 3	228	98	0	0	0	0	0	326				
NSG Level 4	0	324	0	0	0	2	0	326				
NSG Level 5	0	324	0	0	0	2	0	326				
NSG Level 6	0	350	0	0	0	0	0	350				
NSPG Zone	579	1096	159	0	0	9	0	1843	5	24	29	-20
Sbisa Zone	20	88	0	18	3	11	0	140	1	4	5	6
Asbury - 30 min sp Hotard	1	0	0	18	0	2	0	21				
Asbury - Sbisa	0	0	0	0	0	8	0	8				
Lot 011	12	0	0	0	3	0	0	15				
Lot 004a	0	32	0	0	0	0	0	32				
Lot 004b	0	4	0	0	0	0	0	4				
Lot 004c	0	21	0	0	0	0	0	21				
Lot 017	7	31	0	0	0	1	0	39				
Northside Zone	12	733	0	58	0	35	0	838	3	14	17	18
Lot 032	3	63	0	0	0	4	0	70				
Lot 030a	0	100	0	5	0	4	0	109				
Lot 030b	0	0	0	0	0	16	0	16				
Lot 030c	1	321	0	24	0	6	0	352				
Lot 030d	1	150	0	0	0	0	0	151				
Lot 077	7	99	0	5	0	3	0	114				
Post Office Lot	0	0	0	24	0	2	0	26				
Life Sciences Zone	57	190	0	0	3	2	0	252	2	5	7	-5
Lot 020	45	38	0	0	3	2	0	88				
Lot 030e	0	130	0	0	0	0	0	130				
Lot 042	12	22	0	0	0	0	0	34				
S Houston - Assoc Bldg	0	0	0	0	0	0	0	0				
Cain Hall/MSZ Zone	55	244	0	5	0	24	0	328	2	6	8	16
Stallings Blvd	20	0	0	0	0	7	0	27				
Lot 049	0	0	0	0	0	0	0	0				

Zone Name	Reserved	Regular	Visitor	Timed	U.B.	HC	Other	Total	Van HC Req'd	HC Req'd	Total HC	HC Zone+/-
Lot 039	20	244	0	3	0	5	0	272				
Lamar St West	15	0	0	2	0	12	0	29				
Kyle Field Zone	5	560	0	10	0	39	17	631	3	10	13	26
Lot 062	5	560	0	10	0	39	17	631				
WCG Level PL	0	430	0	0	0	5	0	435				
WCG Level 1	0	478	0	0	0	8	0	486				
WCG Level 2	0	528	0	0	0	7	0	535				
WCG Level 3	0	529	0	0	0	7	0	536				
WCG Level 4	0	530	0	0	0	7	0	537				
WCG Level 5	0	530	0	0	0	7	0	537				
WCG Level 6	0	527	0	0	0	3	0	530				
WCG Level 7	0	96	0	0	0	0	0	96				
WCPG Zone	0	3648	0	0	0	44	0	3692	8	39	47	-3
Kleberg Zone	73	1686	61	5	0	29	2	1856	5	24	29	0
Lot 061	0	838	24	0	0	3	0	865				
Lot 065	0	159	0	0	0	6	0	165				
Lot 066	54	0	0	0	0	3	0	57				
Kleberg Circle	0	0	0	0	0	0	0	0				
Lot 074	19	689	37	5	0	17	2	769				
Reed Arena Zone	19	2544	0	18	0	46	0	2627	7	30	37	9
Lot 100a	0	308	0	0	0	8	0	316				
Lot 100b	0	304	0	0	0	0	0	304				
Lot 100c	0	631	0	0	0	0	0	631				
Lot 100e	0	639	0	0	0	14	0	653				
Lot 100f	9	281	0	0	0	0	0	290				
Lot 100g	8	299	0	0	0	8	0	315				
Lot 102	2	82	0	18	0	16	0	118				
Tennis Zone	2	350	0	0	0	13	5	370	2	6	8	5
Lot 100d	2	318	0	0	0	11	5	336				
Lot 115	0	32	0	0	0	2	0	34				
Ag Building Zone	113	424	22	0	0	4	0	563	2	10	12	-8
Lot 086	32	5	0	0	0	0	0	37				
Lot 097	81	373	22	0	0	0	0	476				
Lot 096	0	46	0	0	0	4	0	50				
Heep Zone	63	276	0	0	3	8	0	350	2	6	8	0
Lot 067	0	140	0	0	0	6	0	146				
Lot 068	63	0	0	0	0	0	0	63				
Lot 070	0	46	0	0	3	2	0	51				
Heep Circle	0	0	0	0	0	0	0	0				
Lot 064	0	90	0	0	0	0	0	90				
Wehner Zone	8	586	344	1	0	21	0	960	4	16	20	1
Lot 072a	6	0	154	0	0	9	0	169				
Lot 072b	0	0	190	0	0	7	0	197				
Lot 073	2	136	0	0	0	4	0	142				
Lot 116	0	10	0	1	0	1	0	12				
Lot 018	0	176	0	0	0	0	0	176				
Lot 098	0	264	0	0	0	0	0	264				
Public Health Zone	9	249	0	0	0	8	0	266	2	5	7	1
Lot 114	9	238	0	0	0	8	0	255				
Lot 122	0	11	0	0	0	0	0	11				
TIPS Zone	0	152	0	0	0	6	0	158	1	5	6	0
Lot 101	0	152	0	0	0	6	0	158				

Zone Name	Reserved	Regular	Visitor	Timed	U.B.	HC	Other	Total	Van HC Req'd	HC Req'd	Total HC	HC Zone+/-
TIGM Zone	0	112	0	0	0	6	0	118	1	4	5	1
Lot 025	0	78	0	0	0	4	0	82				
Lot 009	0	27	0	0	0	1	0	28				
Companion Animal Care	0	7	0	0	0	1	0	8				
Vet Zone	15	1305	0	0	6	33	42	1401	5	20	25	8
Lot 012	0	48	0	0	0	0	0	48				
Lot 013	0	50	0	0	0	3	0	53				
Lot 024	0	245	0	0	0	3	0	248				
Lot 045	0	66	0	0	0	2	10	78				
Lot 036a	0	396	0	0	0	10	0	406				
Lot 036b	15	80	0	0	0	6	4	105				
Lot 036c	0	73	0	0	0	0	0	73				
Lot 036d	0	25	0	0	0	0	0	25				
Lot 036e	0	57	0	0	0	0	0	57				
Lot 038	0	129	0	0	0	6	28	163				
Lot 075	0	57	0	0	0	2	0	59				
Lot 080	0	49	0	0	0	0	0	49				
Lot 094	0	12	0	0	0	0	0	12				
Lot 079	0	18	0	0	6	1	0	25				
Bio Control Zone	0	94	1	0	0	4	0	99	1	3	4	0
Lot 037	0	73	1	0	0	3	0	77				
Lot 093	0	21	0	0	0	1	0	22				
Purchasing Zone	0	476	0	6	0	3	0	485	2	7	9	-6
Lot 071a	0	289	0	0	0	0	0	289				
Lot 071b	0	85	0	0	0	0	0	85				
Lot 076		67	0	6	0	3	0	76				
Lot 078	0	35	0	0	0	0	0	35				
Fleet/Transit Zone	0	67	0	2	0	2	0	71	1	2	3	-1
Lot 082	0	44	0	2	0	2	0	48				
Lot 081	0	23	0	0	0	0	0	23				
OTSC Zone	4	53	0	0	0	3	0	60	1	2	3	0
Lot 087	4	53	0	0	0	3	0	60				
Commissary Zone	0	115	0	7	0	3	19	144	1	4	5	-2
Lot 083	0	52	0	1	0	2	0	55				
AM5 Lot	0	0	0	0	0	0	19	19				
Lot 084	0	63	0	6	0	1	0	70				
Facility Services Zone	5	230	0	7	0	4	2	248	2	5	7	-3
Lot 085	5	230	0	7	0	4	2	248				
GSC Zone	0	750	0	17	0	17	1	785	3	13	16	1
Lot 088	0	750	0	17	0	17	1	785				
NCTM Zone	0	146	0	0	0	6	0	152	1	5	6	0
Lot 123	0	146	0	0	0	6	0	152				
UPD Zone	1	109	0	10	0	4	20	144	1	4	5	-1
Lot 108	1	109	0	10	0	4	20	144				
ODP Zone	2	171	0	0	0	6	0	179	1	5	6	0
Lot 110	2	171	0	0	0	6	0	179				
TTI Zone	0	435	0	8	0	9	0	452	2	7	9	0
Lot 113	0	435	0	8	0	9	0	452				

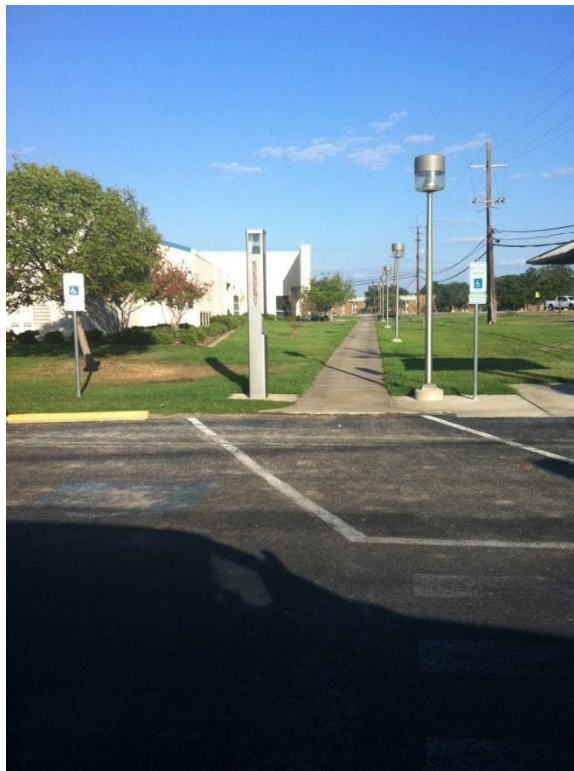
Zone Name	Reserved	Regular	Visitor	Timed	U.B.	HC	Other	Total	Van HC Req'd	HC Req'd	Total HC	HC Zone+/-
Bush Library Zone	0	340	233	0	0	15	12	600	2	10	12	3
Lot 041	0	0	233	0	0	15	12	260				
Lot 043	0	340	0	0	0	0	0	340				
Allen Building Zone	2	264	0	6	0	11	0	283	2	5	7	4
Lot 111	2	264	0	6	0	11	0	283				
Olsen Field Zone	14	811	0	2	0	47	47	921	4	15	19	28
Lot 100j	14	811	0	2	0	47	47	921				
Student Rec Zone	0	228	61	0	0	11	0	300	2	5	7	4
Lot 100h	0	182	61	0	0	9	0	252				
Lot 105	0	46	0	0	0	2	0	48				
Misc Zones												
Bonfire Memorial Cir	0	0	12	0	0	2	0	14	1	0	1	1
Golf Lot	0	99	0	8	0	4	0	111	1	4	5	-1
Technology Loop	0	0	0	76	0	0	0	76	1	3	4	-4
Grounds Lot 089	0	55	0	0	0	0	0	55	1	2	3	-3
Gates Lot 090	0	55	20	0	0	4	0	79	1	3	4	0
Connally Lot 001	6	385	0	5	0	9	0	405	2	7	9	0
Lot 120	0	69	2	0	0	4	0	75	1	2	3	1
Lot 121	0	32	0	0	0	2	0	34	1	1	2	0
Lot 112	0	30	0	5	0	2	0	37	1	1	2	0
TOTALS	2349	28176	1456	334	35	725	206	33281	121	486	607	97

Appendix B:

Existing Accessible Parking Survey



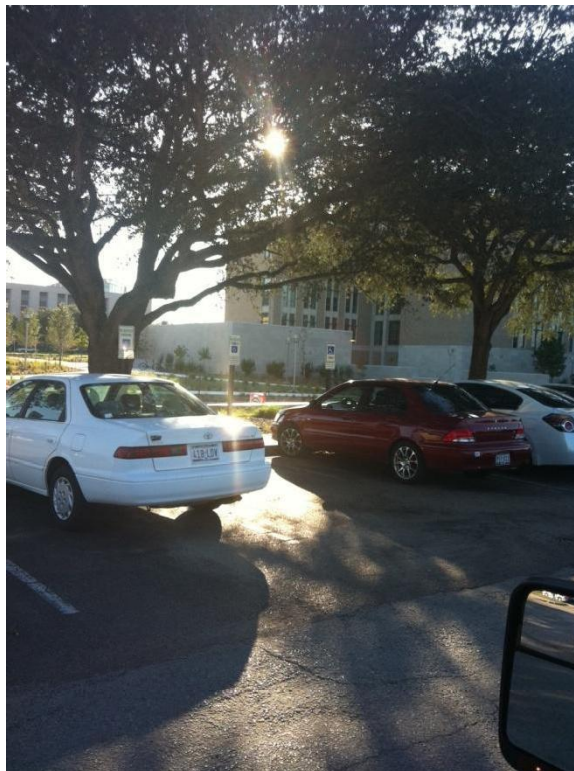
Parking Area 90 – Non Compliant Curb Ramp Terminations



Parking Area on Moore Avenue – Non Compliant Curb Ramp



Parking Area 50 - No Compliant Curb Ramp and No Accessible Aisles



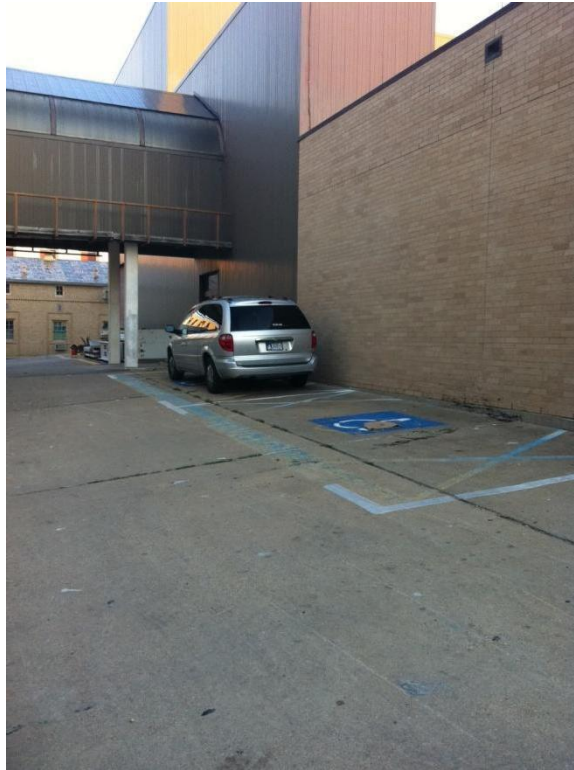
Parking Area 50 - No Compliant Curb Ramp and No Accessible Aisles



Parking Area 57 - No Compliant Curb Ramp



Parking Area 57 - No Compliant Curb Ramp



Parking Area 29 – Cross Slope Exceeds 1:48



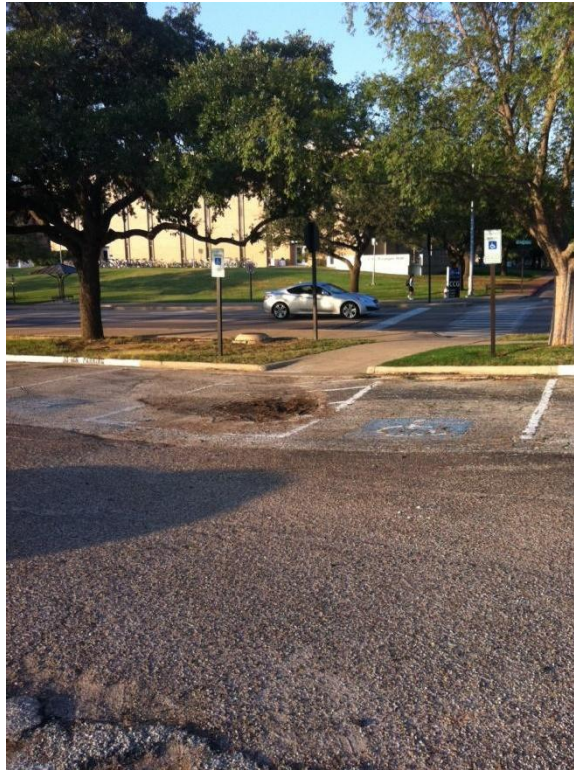
Parking Area 14 – No Compliant Curb Ramp, No Accessible Aisle and Running Slope Exceeds 1:48



Parking Area 14 – No Accessible Aisles and Running Slope Exceeds 1:48



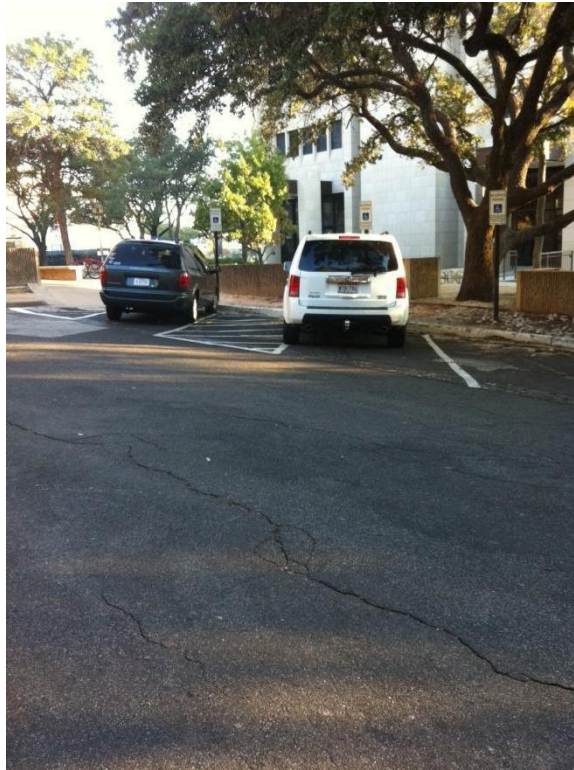
Parking Area 54 – No Accessible Curb Ramps



Parking Area at Golf Lot – Non Compliant Curb Ramp and Cross Slope Exceeds 1:48



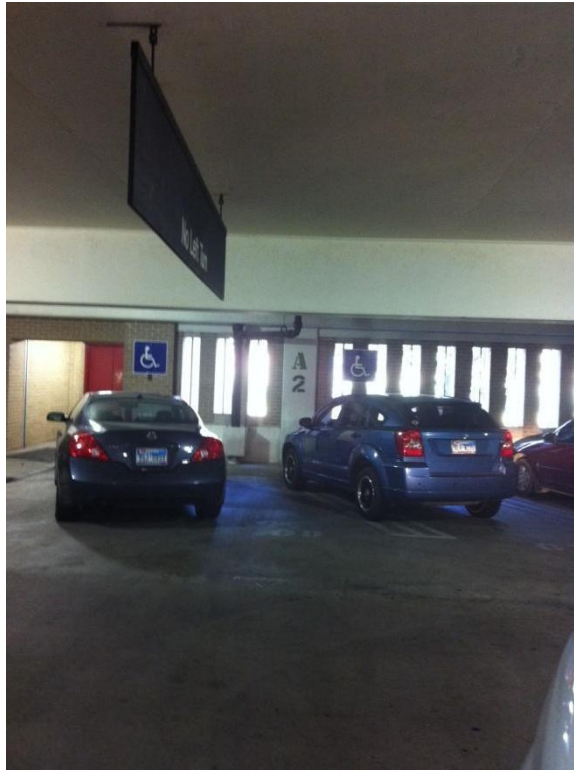
Parking Area at Golf Lot – No Compliant Curb Ramp



Parking Area 15 – No Compliant Curb Ramp and Cross Slope Exceeds 1:48



Parking Area Mosher Street – No Compliant Curb Ramps



Parking Area Southside Parking Garage - No Compliant Curb Ramp and No Accessible Aisles



Parking Area Spence Street - No Compliant Curb Ramp and No Accessible Aisle



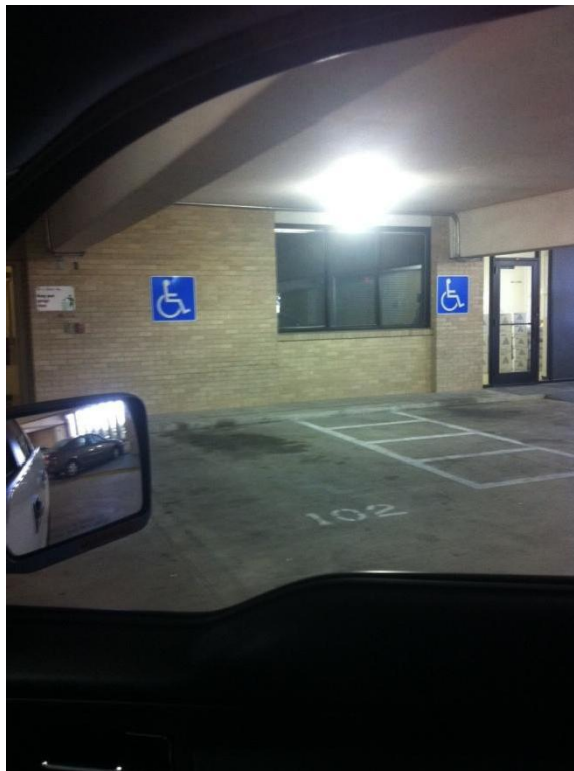
Parking Area 7 - No Compliant Signage



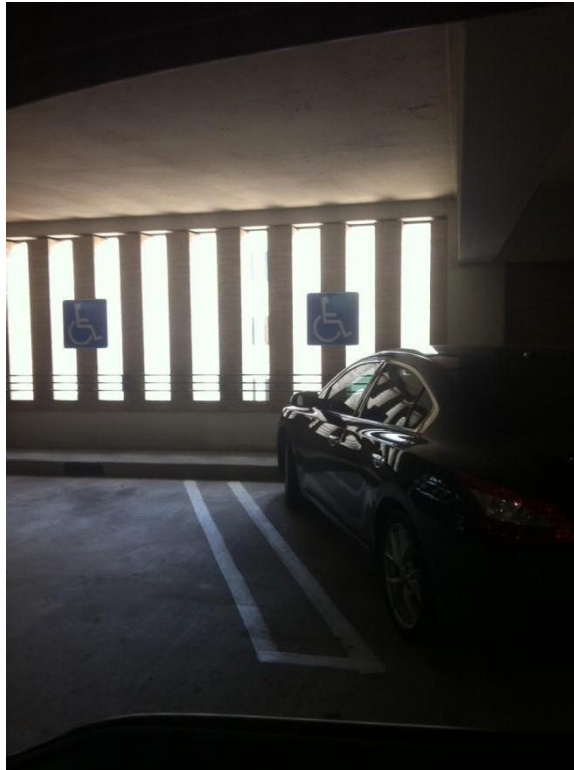
Parking Area Ireland Street - Non Compliant Curb Ramp



Parking Area Ireland Street - No Compliant Curb Ramp and No Accessible Aisles



Parking Area Northside Parking Garage - No Compliant Curb Ramp



Parking Area Northside Parking Garage - No Compliant Curb Ramp and No Accessible Aisle



Parking Area 77 - No Compliant Curb Ramp



Parking Area 30c - Non Compliant Curb Ramp



Parking Area Asbury Street – No Compliant Curb Ramp and Running Slope Exceeds 1:48



Parking Area University Center Parking Garage - No Compliant Curb Ramp and No Accessible Aisles



Parking Area 48 - No Compliant Curb Ramp



Parking Area 59 - No Compliant Curb Ramp and No Accessible Aisle



Parking Area 96 - No Compliant Curb Ramp and No Accessible Aisle



Parking Area 74 - Non Compliant Curb Ramp



Parking Area 74 - No Compliant Curb Ramp



Parking Area 37 - Non Compliant Curb Ramps



Parking Area 85 - Non Compliant Curb Ramp



Parking Area 73 - No Compliant Curb Ramp



Parking Area 111 - No Compliant Curb Ramp and No Accessible Aisles



Parking Area 108 – No Compliant Curb Ramp and Non Compliant Signage



Parking Area 108 – No Compliant Curb Ramp and Non Compliant Signage



Parking Area 74 – No Compliant Curb Ramps