PLACEMAKING IN AUSTIN’S CAPITOL COMPLEX

A Walkability Analysis

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CRP 386: Intro to GIS [Dr. Bjørn Sletto]
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EXECUTIVE SUMMARY

The State of Texas is planning to redevelop some of its landholdings in Austin’s Capitol Complex. This area is centrally located between the University of Texas campus, the State Capitol building, and downtown Austin. The current dominant land uses in the area are state government office buildings and parking. The concept of walkability will play a key role in any redevelopment in the area, which the State has indicated will be mixed-use in nature and will comprise both new construction and ground-floor rehabilitation of current buildings.

This study is a walkability analysis of two corridors traversing the Capitol Complex. The analysis was conducted in the autumn of 2012, before any redevelopment projects have been finalized. The analysis combines geospatial data from local government agencies in Travis County with field observations including a street amenity inventory and a pedestrian count. Each block along San Jacinto Boulevard and North Congress Avenue in the Capitol Complex is assigned a walkability score. The walkability score reflects pedestrian amenities and the built environment of the area. Pedestrian counts and land use analyses complement the findings and give a picture of the Capitol Complex as a whole.

The findings of the walkability analysis indicate that the Capitol Complex is not an unwalkable place. However, conditions vary both block-by-block and among the two corridors. North Congress Avenue has a higher walkability score in general than San Jacinto Boulevard. Basic pedestrian infrastructure exists, however both corridors stand to gain from improvements. The study recommends improvements such as increased tree canopy for shade, seating installation, and attractions to pique the interest of passers-by.

In order for redevelopment in the Capitol Complex to reflect current trends in central Austin, walkability issues must be addressed. While some of the improvements may be made simultaneously with new construction, others can be implemented more or less immediately. This may require a tripartite working relationship between the State of Texas, the City of Austin, and Capital Metro. Walkability improvements can help to make the area more attractive to not only pedestrians, but property developers and investors.
INTRODUCTION

The role of placemaking in urban redevelopment
The renewed interest in America’s central cities over the last two decades has led to the reinvention and revitalization of previously declining urban districts. This revitalization necessarily involves “placemaking” in order to attract the attention of investors, property developers, business owners, and citizens. Definitions of “placemaking” vary, but are premised on developing a certain level of activities and amenities which in turn will lead to more positive perceptions of the built environment. Bain, Gray, and Rodgers simply define placemaking as “making spaces where people want to spend their time” (2012: 2). Al-Kodmany (2011), citing Nasar (1998) and Fleming (2007), states that placemaking refers to the creation of built environments that impart a distinct sense of place of an area while meeting basic physiological and psychological needs of people. Lynch (1960) refers to a “place” as an environment where meanings and associations are clustered and organized. Such a place enhances human activity and encourages memory development.

Because of the significant role of perception, memory and emotional attachment for encouraging human activity, placemaking is an important strategy used for revitalizing neglected or nondescript zones in the urban core, such as districts with heavy office use, into memorable places. Because of the concentration of a single dominant building use, the lack of 24-hour activity, and the lessened need for cultural diversions, office districts are often failures at placemaking. In cities where mass transit is not heavily utilized, pedestrian traffic through the zone may be rare as most employees will travel to and from work in private cars. What few property uses that exist apart from offices may only cater to employees during the workweek; e.g. delis open only at lunchtime or drycleaners. There is little to attract outsiders, nor to encourage workers to spend any time before or after work in the zone. However, by drawing on principles of placemaking, redevelopment of such office districts can stimulate investment and interest, which, in turn, may attract new businesses, residents, and activities.

Walkability as a component of placemaking
In placemaking projects, “walkability” is a key component. Walkability can enhance the experience of visitors to a place, making it more memorable and attractive. The definition of “walkability” varies but is premised upon an environment conducive to pedestrian activity. Litman defines walkability as “the quality of walking conditions, including factors such as the existence of walking facilities and the degree of walking safety, comfort, and convenience” (2003: 3). Forsyth & Southworth characterize a walkable place as one where destinations are close, physical barriers are non-existent, pedestrians feel safe from crime and motorized traffic, and the physical infrastructure supports walking (2008:2). A checklist produced by the Partnership for a Walkable America provides a framework for scoring a neighborhood’s walkability. The pedestrian answers questions addressing the provision and quality of sidewalks, street crossings, and perceptions of the built environment, among other topics (Partnership for a Walkable America n.d.).
Walkability in Austin, Texas

Walkability in Austin has been officially emphasized. The City’s Urban Design Guidelines provide recommendations for new development that enhance walkability, citing a link between a project’s economic viability and walkability (City of Austin Design Commission, 2009: 33). Streetscape amenities, such as “benches, trash receptacles, planters, […] bike racks, sculpture, and water features” support the pedestrian experience (City of Austin Design Commission, 2009: 38).

According to Walkscore.com, Austin ranks as the 31st most walkable large American city (n.d., a). The average neighborhood walkability score is 47 out of 100, which, despite the ranking, makes Austin “car dependent.” The downtown area has the highest score in the city, 89/100. Previous studies have documented the pedestrian environment in other areas of Austin, including the neighborhood surrounding the MLK Red Line commuter rail station and the IH-35 corridor downtown. Chung (2009) measured accessibility to the rail station from surrounding neighborhoods and found that many residential streets were missing sidewalks or were otherwise unsafe for pedestrians. Rodriguez (2010) recommended streetscape amenities to enhance the pedestrian experience in an area totally devoted to motor vehicles.
Case Study: The Capitol Complex in Austin, Texas

The Capitol Complex of Austin, Texas, is a representative example of an urban office zone that suffers from being a “non-place” in the midst of a city undergoing substantial urban redevelopment. Bounded by the State Capitol building, MLK, Jr. Blvd., Lavaca St., and Waller Creek, the Capitol Complex is dominated by state office buildings and parking lots. Just a few blocks to the south, downtown Austin has been the site of numerous redevelopment projects in the past decade, including residential and mixed-use buildings as well as streetscape improvements. However, this activity has not spilled over into the Capitol Complex. Instead, the zone sits underutilized, dormant at nights and on weekends, and represents a somnolent “non-place” in the middle of an otherwise dynamic city.

The Capitol Complex began in the 1950s as state government expanded and the Legislature provided funds to acquire properties near the State Capitol to house state offices and workers (Texas Facilities Commission 2012: 21). Many large office buildings have been constructed in the area amidst a smattering of historical landmarks that have managed to survive demolition. After the economic downturn beginning in 2007 and subsequent decrease in revenues, the State of Texas has expressed interest in selling or redeveloping portions in order to raise revenue (Copelin 2010; 2011). The Texas Facilities Commission has identified 21 acres of under-developed state-owned property, with a total of 5.8 million square feet potentially available for mixed-use private development (2012: 4).

The Capitol Complex’s Walk Score rating is a “very walkable” 77 out of 100 (n.d., b), but this number is deceptive. The score appears to be utilitarian in nature and based upon destination. The webpage states that “most errands [in the area] can be accomplished on foot” (n.d., b). However, sample destinations for pedestrians are erroneously or inappropriately categorized. For example, the office for the US Food and Drug Administration is categorized as a grocery store. The Capitol Grill is listed as a restaurant, despite its location in the basement of the State Capitol behind a security checkpoint. The Walk Score does not appear to consider factors such as safety or condition of pedestrian infrastructure. Therefore, it should not be considered to be indicative of the area’s walkability. Instead, a more holistic approach is appropriate when evaluating an area’s walkability.
WALKABILITY ANALYSIS
Capitol Complex: Austin, Texas

Map 1

Created by: Matt Clifton
Date: 30 November 2012
Sources: City of Austin, Capital Area Council of Governments, Bing Maps
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
PROBLEM STATEMENT & RESEARCH QUESTIONS

The State of Texas and the City of Austin stand to gain from redevelopment of the Capitol Complex. However, any project will likely be unsuccessful if it ignores the needs of pedestrians. The zone’s current pedestrian environment is insufficient according to various definitions of walkability and the Austin Urban Design Guidelines. This presents a challenge for attracting businesses and pedestrians and does not bode well for redevelopment.

This study will present the results of a walkability analysis of the Capitol Complex and, based on this analysis, provide recommendations for suitable improvements to the built environment that will aid in the creation of a walkable place out of the Capitol Complex. The current walkability conditions in the zone will be documented and analyzed. Specifically, I will evaluate individual blocks located along North Congress Avenue and San Jacinto Boulevard. These streets serve as the main corridors through the area connecting it with the University of Texas campus to the north and the central business district of Austin to the south.

I will assign a walkability score to each block along the selected streets. The score will be based upon a street amenity analysis composed of three categories: safety (emotional); comfort (physical); and activity (psychological). (See the Methodology section for more detail about each category.) I will use the scores as an indicator of a block’s walkability. I will use the inventory and analysis to make recommendations for what should be added to each block to make it more walkable.

In addition to the street amenity analysis, additional data such as a pedestrian count at four strategic locations and a land-use analysis will further inform the status of the pedestrian environment in the Capitol Complex.

RESEARCH QUESTION 1: What are the characteristics of the built environment of the Capitol Complex?

RESEARCH QUESTION 2: How walkable are the two selected corridors of the Capitol Complex?

RESEARCH QUESTION 3: What improvements could make the selected corridors of the Capitol Complex more walkable?
METHODOLOGY

This project was inspired by my own personal experiences passing through the Capitol Complex between the UT-Austin campus and downtown Austin. I read an article in the Austin American-Statesman (Copelin 2012a) in the summer of 2012 and immediately thought of how dull and unexciting the area seemed. I realized that any plans to redevelop the area needed to address the unpleasant pedestrian experience and the fact that it felt like a “non-place.” In order to more objectively present and argue my emotional response to the zone, I needed to understand what is encapsulated by “placemaking” and how “walkability” fits into the topic. I conducted a literature review to grasp the definition of each term, and how they are often related. Next, I searched for newspaper articles and official reports about the Capitol Complex. This enabled me to understand the context of the Capitol Complex redevelopment plans. Next, I examined official documents in order to see how the City of Austin has approached walkability.

Now that I had topical information, I needed spatial, quantitative, and qualitative data about the Capitol Complex in order to analyze the built and pedestrian environments. I obtained spatial data from both the City of Austin and the Capital Area Council of Governments (CAPCOG). Both entities have extensive GIS data available to download for free on their websites. I also downloaded property owner information from the Travis Central Appraisal District’s (TCAD) searchable online database. Finally, I collected some data on my own to complement what was officially available.

There is no official definition of walkability, only suggestive parameters. Therefore, I had to craft my own definition of walkability and invent a method of rating each block along the selected corridors according to this definition. Various sources, including the City of Austin’s Urban Design Guidelines and the literature informed my definition. For this study, I define a “walkable” place as one that provides a sense of safety, comfort, and activity to the pedestrian. The following table breaks each component down into empirical features:

*Table 1. Three parameters of walkability and examples of each*

<table>
<thead>
<tr>
<th>SAFETY (EMOTIONAL)</th>
<th>COMFORT (PHYSICAL)</th>
<th>ACTIVITY (PSYCHOLOGICAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>street lighting</td>
<td>sidewalk</td>
<td>other pedestrians</td>
</tr>
<tr>
<td>crosswalks</td>
<td>minimal curb cuts</td>
<td>attractions</td>
</tr>
<tr>
<td>traffic signalization</td>
<td>tree canopy</td>
<td></td>
</tr>
<tr>
<td>separation from traffic</td>
<td>surrounding buildings</td>
<td></td>
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<tr>
<td></td>
<td>benches</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bus shelters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>trash bins</td>
<td></td>
</tr>
</tbody>
</table>

8
In order to assess the pedestrian environment in the Capitol Complex, I walked the streets myself, documenting the location of pedestrian amenities and conducting four pedestrian counts with the help of a few friends. I then designed a spreadsheet to rate each block along the two selected corridors. The completed spreadsheet is on page 24. I had to normalize the score for each block in order to get a score of 1-10. I was limited for time doing the pedestrian counts, so I decided to do four at what I considered to be key locations in the zone due to their proximity to “attractions” (places that serve as destinations that are not work-related). One pedestrian count was conducted on a street not selected for the walkability analysis as a sort of control. Some of the pedestrian counts in the literature were conducted over a 24-hour period. I simply did not have that much time; instead, my counts were over a 20-minute period. I conducted the counts on a Sunday and Tuesday at the lunch hour and in the evening to see whether or not pedestrian activity was influenced by day or hour. Since the Capitol Complex is heavily dominated by office uses, I thought the most pedestrians would be counted during the Tuesday lunch hour. I have no reason to believe that these counts are not typical of any other day or time: the weather was fair and there were no special events, such as a UT football game, that might have affected the number of pedestrians.
LAND USE ANALYSIS

• Downloaded data from CAPCOG, the City of Austin, and TCAD showing the location of streets, parcels, buildings.
• Obtained administrative records about each parcel, including zoning, land use as of 2010, and property ownership.
• Manually corrected data when I knew the current land use did not match the 2010 record, or if a building had been demolished.
• Merged parcels with the same owner and land use to create a cleaner look and simplify analysis

STREET AMENITY ANALYSIS

• Designed and printed map documents to manually record location of street amenities and walking conditions (see Appendix)
• Analyzed literature to determine what I should note on my walks
• Walked streets taking pictures and marking on maps
• Downloaded street and parcel data, inserted basemap, and manually placed icons representing various amenities into the maps; also manually edited sidewalk and street line files when incorrect

PEDESTRIAN COUNT

• Examined examples of other pedestrian counts to determine how to appropriately count
• Chose four intersections near “attractions” (one not along selected corridors to serve as a quasi-control)
• Chose day/time for counts
• Designed tally sheet
• Enlisted in the help of friends to conduct counts simultaneously
• Used Microsoft Excel to represent quantitative data using stacked bar graphs
• Placed graphs into map document with markers highlighting intersections and nearby “attractions”

BLOCK WALKABILITY RANKINGS

• Developed scheme to convert observed data into numerical values
• Used Microsoft Excel to design a spreadsheet to rate each block based on scoring criteria I came up with (score 1-10 with 10 being the most walkable)
• Used ArcGIS to convert numerical scores to color symbology for ease of comprehension
• Placed color bars onto map document
FINDINGS: OVERVIEW MAPS

Map 2

WALKABILITY ANALYSIS
Zoning in the Capitol Complex

Commercial
- General Office
- Community Commercial
- Commercial Services
- Downtown Mixed Use
- Central Business District

Residential
- Multifamily

Overlays
- Capitol View Corridor
- Capitol Dominance

State Capitol
State-owned Parcels

Created by: Matt Clifton
Date: 07 December 2012
Sources: City of Austin; Capital Area Council of Governments; Travis Central Appraisal District; Bing Maps
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
Map 3

WALKABILITY ANALYSIS
Land Uses in the Capitol Complex

State Capitol
Apartment/Condo
Meeting and Assembly
Commercial
Office
Government Services
Parking

Created by: Matt Clifton | Date: 07 December 2012
Sources: City of Austin; Capital Area Council of Governments; Travis Central Appraisal District; Bing Maps
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
FINDINGS: STREET AMENITY INVENTORIES [NORTH CONGRESS]

Map 4

WALKABILITY ANALYSIS
1500 block N Congress

sidewalk

Created by: Matt Clifton | Date: 30 November 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
Map 5

WALKABILITY ANALYSIS
1600 block N Congress

Created by: Matt Clifton
Date: 30 November 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
Map 6

WALKABILITY ANALYSIS
1700 block N Congress

Created by: Matt Clifton
Date: 13 November 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
Map 7

WALKABILITY ANALYSIS
1800 block N Congress

Created by: Matt Clifton
Date: 30 November 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
FINDINGS: STREET AMENITY INVENTORIES [SAN JACINTO]

Map 8

WALKABILITY ANALYSIS
1300 block San Jacinto

sidewalk

tree canopy

building footprints

curb cut

stop sign

bus stop

marked crosswalk

Created by: Matt Clifton
Date: 30 November 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983,
Central Texas State Plane FIPS 4203 (feet)
Map 9

WALKABILITY ANALYSIS
1400 block San Jacinto

Created by: Matt Clifton
Date: 30 November 2012
Sources: City of Austin;
Capital Area Council of Governments;
Bing Maps; author-gathered data
Projection: NAD 1983,
Central Texas State Plane FIPS 4203 (feet)
Map 10

WALKABILITY ANALYSIS
1500 block San Jacinto

created by: Matt Clifton
Date: 30 November 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)

sidewalk  bench  traffic signal
tree canopy  bus stop
building footprints  marked crosswalk
curb cut  

0  12.5  25  50 Feet
WALKABILITY ANALYSIS
1600 block San Jacinto

Created by: Matt Clifton
Date: 30 November 2012
Sources: City of Austin; Capital Area Council of Governments;
Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
Map 12

WALKABILITY ANALYSIS
1700 block San Jacinto

Created by: Matt Clifton
Date: 30 November 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
WALKABILITY ANALYSIS
1800 block San Jacinto

Created by: Matt Clifton
Date: 13 November 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
FINDINGS: PEDESTRIAN COUNT

Map 14

WALKABILITY ANALYSIS
Capitol Complex Pedestrian Counts

Created by: Matt Clifton
Date: 07 December 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
Notes: Counts conducted during a 20-minute period on Sunday and Tuesday during fair weather. Pedestrians counted as they entered the intersection or turned the corner at the edge. Zero pedestrians observed at point 4 on weekend evening.

<table>
<thead>
<tr>
<th>Count Location</th>
<th>Weekend Noon</th>
<th>Weekend Evening</th>
<th>Weekday Noon</th>
<th>Weekday Evening</th>
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<tr>
<td>1 14th/Colorado</td>
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<td>42</td>
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<td>2 15th/Congress</td>
<td>21</td>
<td>7</td>
<td>83</td>
<td>19</td>
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<td>3 18th/Congress</td>
<td>34</td>
<td>12</td>
<td>125</td>
<td>35</td>
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<tr>
<td>4 17th/San Jacinto</td>
<td>7</td>
<td>53</td>
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**FINDINGS: SCORING INDIVIDUAL BLOCKS**

*Table 3*

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<th>NORTH CONGRESS</th>
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<th>1900</th>
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<th>2100</th>
<th>AUSTIN ST</th>
<th>MADDISON</th>
<th>5TH ST</th>
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</tbody>
</table>
FINDINGS: BLOCK WALKABILITY RATINGS

Map 15

WALKABILITY ANALYSIS
Street Rating Along Selected Corridors

Created by: Matt Clifton | Date: 06 December 2012
Sources: City of Austin; Capital Area Council of Governments; Bing Maps; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
ANALYSIS

The Capitol Complex is dominated by parking infrastructure and offices. The State of Texas is the dominant landowner. The State owns almost 60.5% of the roughly 67 acres making up the area. Almost 29 acres in the area are dedicated to parking (43% of the land area). In such an accommodating environment for automobiles, pedestrians may not be a priority.

Zoning in the Capitol Complex is largely superfluous and does not serve as a reliable indicator of contemporary land uses. State-owned parcels may be protected under principles of sovereign immunity and may not have to abide by municipal zoning. In fact, many medium-rise office buildings in the area are situated on parcels zoned for multi-family residential. This zoning is almost certainly a vestige of the neighborhood as it was in the first half of the 20th century, before the state government began constructing office buildings.

Pedestrian activity in the area seems to be linked to the work schedules of the daytime habitants of the area, suggesting that leisure visits to area “attractions” are made by driving. Joggers constituted a number of weekend pedestrians. Lunchtime during the week is certainly the most active period for pedestrians, who may be office workers either going to lunch or out for some fresh air or light exercise.

Destination is a key factor in walkability. The plethora of parking in the Capitol Complex suggests that most office workers drive to their jobs. The Texas State History Museum and Scholtz Garten, practically the only leisure destinations in the area of study, both have on-site parking. There is little to attract a visitor out onto the streets. Destinations are blocks apart, and the streetscape (especially along San Jacinto) is uninspiring.

The North Congress corridor is overall more walkable than the San Jacinto corridor. There is more tree canopy to provide shade, and the buildings are more varied and set back at varying distances from the street. The result is a slightly more human-scaled street. In comparison, the San Jacinto corridor is largely treeless and hemmed in by concrete parking garages. Given Austin’s hot climate, these are very unpleasant surroundings for walking. Both corridors have a shortage of attractions. Most bus stops on both streets are simply marked by signs with no places to sit. Although there is a sidewalk on every block, the 1600 and 1800 blocks of North Congress have sidewalks that are so far from the street that impromptu paths have been created through the grass. These sidewalks are on the edges of parking lots, which may dissuade pedestrians from taking the slightly longer, albeit paved, pathway. Curb cuts hinder comfortable walking along both streets. Most intersections have marked crosswalks, although the north crosswalk at the intersection of 13th and San Jacinto inexplicably ends at a nitrogen tank chained to the ground. This was probably the most egregious violation of the concept of walkability that I noted, especially considering it is next to a sign warning drivers of blind pedestrians!
Table 4. Selected corridor blocks grouped by walkability

<table>
<thead>
<tr>
<th>UNWALKABLE</th>
<th>SOMewhat Walkable</th>
<th>WALKABLE</th>
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</thead>
<tbody>
<tr>
<td>• N Congress</td>
<td>• San Jacinto</td>
<td>• N Congress</td>
</tr>
<tr>
<td>• 1600 block</td>
<td>• 1300 block</td>
<td>• 1500 block</td>
</tr>
<tr>
<td>• San Jacinto</td>
<td>• 1400 block</td>
<td>• 1700 block</td>
</tr>
<tr>
<td>• 1500 block</td>
<td>• 1600 block</td>
<td>• 1800 block</td>
</tr>
<tr>
<td>• 1700 block</td>
<td></td>
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</table>

Appalling disregard for pedestrian safety at 13th & San Jacinto

Looking northeast along San Jacinto from 13th Street
CONCLUSION & RECOMMENDATIONS

The Capitol Complex’s central location between the University of Texas campus and downtown Austin will no doubt make it an attractive place for property developers and investors. Recent urban redevelopment in Austin has focused on walkability as one component of project implementation. People naturally feel compelled to spend time in a walkable area, enjoying their time outdoors and exploring what the neighborhood has to offer. In order to make the mixed-use development that the state government has in mind for the Capitol Complex a success, the pedestrian environment must be addressed and deficiencies rectified. These improvements can be carried out simultaneously with new construction projects, or done in anticipation of what will come.

Redevelopment of the Capitol Complex will no doubt focus on surface parking lots or ground-floor rehabilitations. The state government is unlikely to demolish parking garages or office buildings. Therefore, much of the built environment is unalterable in the near future. The solid façade of parking garages along San Jacinto is unlikely to be altered any time soon. Because of this, the pedestrian improvements I suggest relatively undisruptive work to the current built environment.

Maps 16 and 17 illustrate suggested improvements. Both corridors need extensive tree plantings to provide shade. Bus stop improvements should include at least benches if not built shelters. Curb cuts should be minimized where possible. Some curb cuts are blockaded and no longer in use but still disrupt the sidewalk, creating the illusion of insecurity for a pedestrian. Some sidewalk improvements are warranted, especially along North Congress. The “attractions” that are so sorely missing from the area will come later as parcels are sold and building space is leased out. However, alterations to building facades like installation of murals or public art can create attractions of their own right more or less immediately. The state government might consider allowing food trailers to operate in surface parking lots to draw hungry office workers, students, and tourists into the streets at lunchtime.

The Capitol Complex is not an inherently unwalkable area. Nevertheless, conditions for pedestrians can certainly be improved, and the anticipated redevelopment of the area in the near future is a good impetus. The state government, municipal government, and Capital Metro should develop a task force to explore options. All three parties stand to gain from the planned redevelopment of the area.
**WALKABILITY ANALYSIS**

*Suggested Improvements: N Congress Corridor*

- **Plant:** trees for canopy, especially on east side
  - **Relocate:** sidewalk on east side away from parking lot

- **Build:** bus shelter
  - **Plant:** more trees for canopy

- **Install:** bench at bus stop; trash bin;
  - marked crosswalk on south side of 16th street intersection
  - **Relocate:** sidewalk on east side away from parking lot
  - **Plant:** trees for canopy

- **Install:** bench

---

Created by: Matt Clifton | Date: 09 December 2012
Sources: City of Austin; Capital Area Council of Governments; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
Suggested Improvements: San Jacinto Corridor

- **Plant:** trees for canopy
  - **Remove:** curb cuts no longer in use

- **Install:** bench at bus stop; trash bin
  - **Build:** bus shelter
  - **Plant:** trees for canopy, especially along west side
  - **Redesign:** parking garage facade

- **Install:** bench; trash bin
  - **Plant:** trees for canopy
  - **Redesign:** parking garage facade

- **Install:** bench at bus stop; trash bin
  - **Build:** bus shelter
  - **Plant:** trees for canopy, especially along east side
  - **Remove:** curb cuts; barbwire fence along east side

- **Install:** public art along building wall on west side
  - **Build:** bus shelter
  - **Plant:** trees for canopy, especially along east side
  - **Remove:** curb cuts

- **Install:** bench at bus stop; trash bin
  - **Build:** bus shelter
  - **Plant:** trees for canopy
  - **Remove:** chemical tank blocking sidewalk at northeast curb

---

*Map 17*

WALKABILITY ANALYSIS

Created by: Matt Clifton | Date: 09 December 2012
Sources: City of Austin; Capital Area Council of Governments; author-gathered data
Projection: NAD 1983, Central Texas State Plane FIPS 4203 (feet)
REFERENCES


Chung, Myungkyung. (2009). Walkability assessment of new transit areas, Austin, TX. (Master’s professional report). University of Texas at Austin, Austin TX.

City of Austin. Land Development Code, subchapter E.


Rodriguez, Stacy. (2010). Restoring Connectivity in Downtown Austin, TX. (Master’s professional report). University of Texas at Austin: Austin TX.


Looking south-southwest from Sholtz Garten down San Jacinto Boulevard. These blocks were amongst the least walkable in the study.
APPENDIX
DATA SOURCES

City of Austin


<table>
<thead>
<tr>
<th>FILE NAME</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>planimetrics_1987.zip</td>
<td>sidewalk, street, curb, building linefiles</td>
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<tr>
<td>build_p.zip</td>
<td>building footprints shapefile</td>
</tr>
<tr>
<td>land_use_2010.zip</td>
<td>parcels with land use info shapefile</td>
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<tr>
<td>STREETS.zip</td>
<td>street centerlines</td>
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<td>tree_canopy_2006.zip</td>
<td>tree canopy as of 2006 in Austin shapefile</td>
</tr>
<tr>
<td>hydro_1.zip</td>
<td>creeks in Austin line shapefile</td>
</tr>
<tr>
<td>zoning.zip</td>
<td>parcels with zoning information shapefile</td>
</tr>
<tr>
<td>overlays.zip</td>
<td>overlay zones shapefile</td>
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NOTE: all files were already projected in NAD 1983 Central Texas State Plane FIPS 4203 (feet)

Capital Area Council of Governments (CAPCOG)


<table>
<thead>
<tr>
<th>FILE NAME</th>
<th>DESCRIPTION</th>
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<tr>
<td>city_limits.shp</td>
<td>city limit shapefiles for CAPCOG region</td>
</tr>
<tr>
<td>Travis2010.shp</td>
<td>Travis County parcels shapefile</td>
</tr>
</tbody>
</table>

NOTE: all files were already projected in NAD 1983 Central Texas State Plane FIPS 4203 (feet)

Bing Maps

base map, accessed through ESRI ArcGIS 10 software
1. add data ; basemap menu option
2. select Bing Maps aerial
Travis Central Appraisal District (TCAD)


1. use website to search for properties with owner name “State of Texas”
2. copy and paste table into Microsoft Excel (no option to download directly from website)
3. scan property addresses; delete those outside of Capitol Complex
4. save as TCAD_parcel.xls

Author-gathered data


Street amenity inventory conducted by Matt Clifton using forms created by same on 03 November 2012.
STEPS FOR MAP CREATION

Reference Map (featured on Maps 1-15)
1. open city_limits.shp; select ‘Austin’ from CITY field in attribute table
2. create new layer from selection; export as city_of_austin.shp
3. open draw toolbar, select marker; place star over approximate location of Complex

Common elements to main data frames (Maps 1-15)
1. manually select State Capitol from build_p.zip; export as new shapefile state_capitol.shp
2. buffer 0.5 mile around state_capitol.shp to make state_capitol_buffer.shp
3. clip all City of Austin files to state_capitol_buffer; clip Travis2010.shp to buffer; save as [original_file_name]_clip.shp
4. add basemap after adding shapefile data; make 75% transparent

Map 1 (Overview Map)
1. add data: streets_clip; Travis2010_clip; state_capitol; hydro_1_clip.shp; tree_canopy_2006.shp; build_p_clip.shp
2. open attribute table of hydro_1_clip.shp; select Waller Creek; merge segments to one polygon
3. open attribute table for streets_clip; label through SQL query; change text appearance for MLK, 13th, Trinity, and Lavaca
4. select by line MLK, 13th, Trinity, Lavaca segments to define Capitol Complex border; make layer from selection
5. display ‘no color’ for remaining streets; label features

Map 2 (Zoning)
1. add data: streets_clip; Travis2010_clip; state_capitol; zoning_clip.shp; overlays_clip.shp
2. select by polygon from zoning_clip.shp only those parcels within Capitol Complex; make new layer from selection
3. edit attribute table for new layer; add field ZONING_SIM; insert data from ZONING_ZTY without suffix to simplify display
4. add data: TCAD_parcel.xls; add land_use_2010_clip.shp; clip to capitol_complex_zoning.shp; name land_use_2010_capitolcomplex.shp
5. join TCAD_parcel.xls to land_use_2010_capitolcomplex.shp by field PROPERTY_ID
6. select by attribute OWNER_NAME = STATE OF TEXAS OR OWNER_NAME = STATE OF TEXAS BUILDING COMMISSION OR OWNER_NAME = STATE OF TEXAS EMPLOYEES RETIR OR OWNER_NAME = TEXAS PUBLIC FINANCE AUTHORITY; make layer from selected features and change symbology
to line file
7. display zoning_clip.shp by ZONING_SIM field; cross reference with City of Austin Land Development Code for legend clarification (e.g. Community Commercial instead of GC)

**Map 3 (Land Uses)**
1. add data: streets_clip; Travis2010_clip; state_capitol; land_use_2010_clip.shp
2. use Editor toolbar to split polygons when satellite image indicated parking lot
3. merge parcels with same owner and same land uses for cleaner display
4. manually edit land use on one parcel where hotel recently opened after failed condo project (1701 Lavaca)

**Maps 4-13 (Street Amenity Analyses)**
1. add data: planimetrics_1987.zip; tree_canopy_2006_clip.shp; streets_clip.shp; basemap
2. use Draw toolbar to manually insert amenities (use map documents from fieldwork as references)
3. use Editor toolbar to add currently-existing sidewalks/street lines not reflected in planimetrics_1987.zip shapefiles
4. add streets_clip.shp to new data frame; select by line those within area of study; export as new layer capitol_complex_streets.shp
5. select by line the block map focuses on; display 2.00 line width
6. label via SQL query by STREET_NAME those which are featured in map

**Map 14 (Pedestrian Count)**
1. manually enter totals from pedestrian count tally sheet in Microsoft Excel
2. create 100% stacked bar chart with data labels for each street; save as .jpg
3. create data frame using capitol_complex_streets.shp; Travis2010_clip.shp; state_capitol.shp
4. use Draw toolbar to create markers for count locations and “attraction” locations
5. use Draw toolbar to create symbology for Excel stacked bar charts
6. insert .jpg files

**Map 15 (Street Rating)**
1. use Microsoft Excel to score each block 1-10
2. pull individual block SEGMENT_ID from capitol_complex_streets.shp
3. select by line analyzed blocks; copy SEGMENT_ID into new Excel sheet
4. add field SCORE to corresponding SEGMENT_ID; save as street_rating.xls
5. join street_rating.xls to capitol_complex_streets.shp via SEGMENT_ID field
6. display by quantity; manual intervals: 0-5; 6; 7; 8; 9-10
7. assign red-to-green color ramp

37
8. insert legend and convert to graphics; delete numbers and insert text describing color ramp indicating least to most walkable blocks
9. SQL query by street name to display selected corridor street names differently; convert labels to annotation to move away from colored lines

Maps 16-17 (Suggested Improvements)
1. add data: capitol_complex_streets.shp; parcels_clip.shp; basemap
2. join street_rating.xls to capitol_complex_streets.shp via SEGMENT_ID field
3. display by quantity; manual intervals: 0-5; 6; 7; 8; 9-10
4. assign red-to-green color ramp
5. copy graphic legend from Map 15 describing walkability
6. label capitol_complex_streets.shp according to LEFT_FROM_ attribute field to get block number
7. draw text boxes to insert suggested improvements
SAMPLE STREET AMENITY ANALYSIS MAP

Street Amenity Analysis
North Congress Ave. [15th-16th]

Date / Time:
Notes:
SAMPLE PEDESTRIAN COUNT TALLY SHEET

WALKABILITY ANALYSIS
Pedestrian Count Tally Sheet

Date:

Time:

Observed weather:

Tally in the box below each pedestrian who enters the intersection.
They do not have to cross the street; they must enter the right-of-way.

Count technician(s):