2. Parks/Greenbelts

Parks/greenbelts provide a good opportunity for pedestrian linkages also. The greenbelt areas shown on the following page are taken from the city zoning maps (designated as "drainage areas"). These zones contain both the north and south branches of the San Gabriel River, and include several of the city's key parks. Consequently, these areas provide vital pedestrian connections within the parks, and between different recreational areas in the city. The greenbelt areas might be underutilized zones for safe movements of pedestrians in the city.

The parks throughout Georgetown also attract a large number of pedestrians. City agencies need to work closely with the Parks and Recreation Department to ensure that all the benefits to pedestrian movements within the city can be realized by capitalizing these valuable resources. City agencies must also closely evaluate the opportunities for pedestrian movements contained in any future master plans developed by the Parks and Recreation Department.

Swimming pools, the tennis club and golf courses are additional uses with a high volumes of pedestrian traffic associated with them. In order to help Georgetown become a more "pedestrian-friendly" city, effective and safe routes to and from these areas must be provided. (Refer to the Parks/Greenbelts Exhibit on the following page.)
3. Zoning

Zoning districts within the city are critical in determining which areas have the greatest demand for pedestrian movement. The information shown on the following page was taken from the city’s current zoning maps. HDR chose to designate at least two general zoning districts as having a high impact on the demands for sidewalks. Multi-family residential and commercial zones are the two categories we noted as having the greatest impact on this study. Multi-family residential zones develop with a greater density of people in a small area, and also typically have a higher number of people walking to various destinations from their homes. These areas can also have a larger population of school-aged children needing safe access for walking to schools and/or bus-pickup areas. In general, commercial zones also attract a higher number of pedestrians. It is important that sidewalks be provided to these pedestrian intensive areas from residential areas.

It is also crucial that the sidewalk plans are updated as zoning districts change. The city’s response to a new development should be for the provision of adequate sidewalks as these new areas develop. (Refer to the Zoning Exhibit on the following page.)
4. Neighborhood Age

In the course of gathering data on sidewalks within the city, it was observed that most of the recently developed neighborhoods had been provided with sidewalks, while many of the older neighborhoods lacked pedestrian movement systems. Therefore, neighborhood age became another element to consider in the evaluation of the city's sidewalk infrastructure. HDR noted the general age of neighborhoods throughout the city in an unscientific way, looking for visual "patterns" that could tell us something about deficiencies in the existing sidewalk infrastructure.

The older neighborhoods in Georgetown typically have fewer sidewalks. The older neighborhoods also tend to have sidewalks that are unacceptable (with regards to accessibility and safety), compared with those found in newer neighborhoods. These older neighborhoods are predominantly concentrated in a region immediately surrounding the Historic District in downtown Georgetown. Newer residential neighborhoods tend to be located at the fringes of the city. In between these two extremes are residential neighborhoods with a wide range of scattered ages.

It was determined that a greater emphasis should be placed on upgrading the older neighborhoods in the city since these areas have a more immediate need for safe and effective pedestrian movements than the newer neighborhoods. (Refer to the Neighborhood Age Exhibit on the following page.)
NEIGHBORHOOD AGE

Georgetown
Sidewalks Study

Legend
- 20 years old or younger
- 70 years old or older

HDR

2.9
5. Drainage Ways

Existing drainage ways can also be excellent opportunities to provide pedestrian movements within Georgetown. The information depicted on the following page was taken from city zoning maps and aerial photographs HDR collected during the data gathering stage of this study.

The city has already taken advantage of existing drainage ways by providing recreational opportunities within these "natural" areas. Two great examples of this would be Blue Hole Park and VFW Park. These two parks provide pleasant pedestrian movements within natural areas, and serve as "links" for pedestrians to other areas of Georgetown. There may be other drainage ways in the city that can also be utilized in a similar manner.

Heavily traveled roadway river crossings (bridges) are another opportunity for drainage ways to be utilized effectively for pedestrian movement. These bridges can provide for potentially safe crossings under the busy and dangerous roadways above. Other opportunities may exist within the city to employ existing drainage ways as an integral part of creating a pedestrian-friendly environment. (Refer to the Drainage Ways Exhibit on the following page.)
6. Bus Pick-up Problem Areas

Providing school-aged children with pedestrian systems from their homes to their schools and back is a critical element to consider in making Georgetown a "pedestrian-friendly" city. The information depicted on the following page was obtained in conversations with Ms. Wanda Smith, the GISD busing coordinator. Based on Ms. Smith's observations, HDR has identified several areas in the city where problems occur due to lack of adequate sidewalks, and/or places for students to gather while waiting for a bus. We will use the current GISD three bus routes to discuss these areas.

The Frost/McCoy bus route has many problems with inadequate sidewalks for areas around the schools and in bus pick-up areas. Existing sidewalks to and from Rhea McCoy Elementary School and The Frost/Benold Schools area are either insufficient or do not provide safe routes for children to get to the schools. This area also has an inadequate sidewalk system for bus pick-up areas.

The Purl/Cooper/Williams bus route also has several problem areas. Providing pedestrian movements to Williams Middle School is one of the biggest problems. Students need safe routes connecting the residential areas to the school and crossings for University Avenue. In addition, bus pick-up areas and sidewalk routes to Annie Purl Elementary are important. A large number of people living in multi-family residential units live in this area and need safe sidewalks for bus pick-up and pedestrian movements to the school.

The Carver/Pickett bus route has only a few inadequacies, and they are limited to the areas directly east of the Dell-Pickett Elementary School. (Refer to the Bus Pick-up Problem Areas Exhibit on the following page.)
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BUS PICK-UP PROBLEM AREAS

Legend
- Problem Areas
- Frost/McCoy
- Pur/Cooper/Williams
- Carver/Picket
- Schools

Georgetown Sidewalks Study
7. Railroad

Railroads that have been abandoned or are seldom used can oftentimes provide for safe and efficient pedestrian linkages throughout a city. The information depicted on the following page was taken from city zoning maps and aerial photographs.

An existing railroad right-of-way traverses north/south through the eastern portion of Georgetown. This railroad appears to be abandoned at the present time (or at a minimum seldom used). This railroad could provide an excellent opportunity to provide a pedestrian link through town, specifically from the Southwestern University area on the north to the Inner Space Cavern area on the south side of the city. Future growth in the southern part of Georgetown may warrant a more detailed look at this possibility. (Refer to the Railroad Exhibit on the following page.)
B. Conclusions and Focus Area

Upon completing the analysis of all the elements, HDR presented this information to various city staff personnel at a meeting on July 17, 2001. By making a composite drawing of the conclusions reached as we analyzed each element separately, we were able to ascertain exactly where our "focus area" should be. It was decided at this meeting that we should limit this study to those areas within the current limits of the city. It was also decided at the same meeting that based on the criteria presented, the "focus area" should be where we concentrate our remaining efforts. The majority of the elements that would have the greatest impact on pedestrian movements within the city are contained within this area. Therefore, this "focus area" comprises the zone of greatest need and opportunity for sidewalk implementation in Georgetown. (Refer to Composite Exhibit on the following page.)
CITY OF
Georgetown
FOUNDED IN 1848

PART 3:
EXISTING SIDEWALK REVIEW
PART 3: Existing Sidewalk Review

A. Current Sidewalk Locations

Once the "focus area" was established, the rest of the fieldwork was completed. Every attempt was made to get an accurate account of the location of existing walks and other sidewalk features. However, some locations may have been overlooked or missed, and some additional walks may have been constructed since the fieldwork was done. It was determined that we would document what we could, but recognize that sidewalk locations and conditions may be changing on a monthly basis. We did the survey with the intent of identifying broad "patterns" for specific conditions and issues.

Existing sidewalks in some form or another are basically located in all parts of the city. When looked at in total, these sidewalks make up a somewhat "scattered" diagram of bits and pieces of a pedestrian system. There are many existing sidewalks, but few strong coherent linkages between one place and another in the city.

One area that does contain a high concentration of existing sidewalks, and thus a coherent linkage for pedestrian movements is the downtown area and the Historic District. Most of the blocks in the downtown area contain at least one sidewalk on one side of the street. These sidewalks serve the existing Williamson County Courthouse building and the adjacent shops/surroundings adequately. However, several areas could use additional upgrades in the future due to accessibility issues such as steps, railings and other conditions.

Photograph 3-1
Many areas in the historic area of downtown have well-established pedestrian areas, including clearly marked crosswalks (as seen in this example with brick pavers).
Photograph 3-2
Other areas have an ample supply of existing sidewalks, but frequently they are not "accessible" (as seen in this example with the sidewalk terminating at the curb with steps instead of a curb ramp).

Another area where existing sidewalks are prevalent is along most of University Drive. Sidewalks are currently in place on one or both sides all the way from U.S. Interstate 35 to the Kurt Landrum Golf Course near Southwestern University.

Austin Avenue also has a good supply of existing sidewalks in the downtown area (as stated before), but lacks several key segments at both the northern and southern extremes. Filling in these gaps to complete Austin Avenue as a strong north/south pedestrian link through the city would be important to the future development of the city's sidewalk master plan. A new segment of sidewalk between 6th street and the San Gabriel Bridge (scheduled for construction by TXDOT in the near future) will help pedestrian movements up and down Austin Avenue a great deal.

Leander Road is another area where several existing sidewalks are already in place. But, as with many other areas in the city, critical segments are missing. These gaps could be filled in and thereby create an important pedestrian travel zone in the southwest portion of Georgetown.

Williams Drive also has a scattering of existing sidewalks in place. Once again, however, critical segments are missing. Providing a continuous sidewalk along at least one side of Williams Drive is crucial to the development of the city's sidewalk master plan.

Existing sidewalks in the residential neighborhoods are either in short supply or abundant depending on the overall age of the neighborhood. The newer residential areas like Reata Trails, Parkview Estates, and neighborhoods near the Dell Pickett Elementary School, contain quite a few sidewalks. Other neighborhoods, such as San Gabriel Heights, Country Club Estates, and the San Jose area, do not have an abundance of existing sidewalks. (Refer to the Existing Walks Exhibit on the following page.)
EXISTING WALKS

Legend
---
Existing Walk

Georgetown Sidewalks Study

HDR

3.3
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B. Current Sidewalk Conditions

As part of our fieldwork, HDR tried to evaluate the physical condition of existing sidewalks throughout Georgetown. We wanted to discover the general overall nature of sidewalks. Were they cracked/broken or in relatively good condition? Were they accessible? Are there ramps in appropriate locations? Are there obstructions to free pedestrian movement for people of all "mobilities"? What other issues/problems are encountered with existing sidewalks in the city?

The physical condition of existing sidewalks throughout Georgetown could be categorized as average, with the newer sidewalks balancing out the deficiencies of the older sidewalks.

There are select pockets in the city where the existing sidewalks are in somewhat poor condition, especially in the residential neighborhoods north and south of University Avenue (the older areas of town). Some existing sidewalks in and around the Historic District could also be categorized as being in somewhat marginal condition (although the city has accomplished many upgrades over recent years in this area). Age has definitely taken its toll in these areas as the older sidewalks are beginning to or already have cracked and broken into pieces. These older areas also contain many obstacles to safe and accessible pedestrian movement. Railings, steps and parking areas blocking the pedestrian way are some of the existing conditions that obstruct pedestrians in this area. Several existing sidewalks simply stop short of completing the connection to a street or another walkway.

Photograph 3-3
In this scenario, a railing and a telephone pole create an unfortunate obstruction to pedestrian movement.
There are many other areas within the city where the existing sidewalks are in excellent condition. Existing sidewalks located on Main Street, and those in proximity to the Williamson County Justice Center, are good examples of sidewalks with appropriate widths and good accessibility. Some areas, usually located along major arterials (Williams Drive, Austin Avenue, and Leander Road), contain high-quality sidewalks because of their fairly recent construction. But oftentimes these sidewalks only exist because a new development has occurred and a sidewalk was added as a requirement for the new building or development. Consequently, these areas offer a somewhat disjointed pedestrian route that needs "connection points" to become a suitable pedestrian way.
Many older areas of town are provided with an excellent existing sidewalk system such as shown here.

Existing sidewalks around the Williamson County Justice Center are excellent pedestrian routes, and provide great accessibility.
Photograph 3-8 Sidewalk construction oftentimes occurs where new development has taken place, but these isolated segments can create a very disjointed pedestrian system.

As is the case in the majority of municipalities, most sidewalks within Georgetown are constructed of plain concrete. In some special areas, other materials have been used, such as colored and stamped concrete, as has been constructed recently in the downtown area. This is a very nice accent to the pedestrian infrastructure in this area, and adds a distinct "historic" flavor to the surroundings. Though other materials exist for sidewalks (such as asphalt and/or decomposed granite), these have not been used to any great extent in Georgetown.

Photograph 3-9 Colored concrete that has been stamped occurs in many locations throughout downtown.
The width of existing sidewalks varies a great deal throughout Georgetown. Older areas of the city typically have narrower widths, oftentimes not exceeding 3 feet. Most of the newer sidewalks appear to be 5 feet wide or greater.

Photograph 3-10
Sidewalk widths vary greatly throughout town, sometimes even in the same stretch of pavement.
C. Current ADA Compliance

Most of the new sidewalks that have been installed in the past few years appear to be in compliance with ADA requirements. Most of the older areas of town have conditions that do not meet ADA requirements. The following list is what ADA mandates for compliance as concerns sidewalks and pedestrian movement (information taken from Federal Register/ Vol. 56, No. 144):

- The minimum clear width of an accessible route shall be 36 inches except at doors.
- An accessible route with a running slope greater than 1:20 is a ramp and shall be deemed as such.
- Cross slope of an accessible route shall not exceed 1:50.
- If an accessible route has changes in level greater than ½ inch, then a curb ramp, ramp, elevator, or platform lift shall be provided.
- An accessible route does not include stairs, steps, or escalators.
- The minimum width of a curb ramp shall be 36 inches.
- If a curb ramp is located where pedestrians must walk across the ramp, or where it is not protected by handrails or guardrails, it shall have flared sides; the maximum slope of the flare shall be 1:10. Curb ramps with returned curbs may be used where pedestrians would not normally walk across the ramp.
- Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes.
- A curb ramp shall have a detectable warning surface.
- Curb ramps shall be located or protected to prevent their obstruction by parked vehicles.
- Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.
- The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 inches.
- The minimum clear width of a ramp shall be 36 inches.
- Ramps shall have level landings at bottom and top of each ramp and each ramp run. Landings shall have the following features:
  o The landing shall be at least as wide as the ramp run leading to it.
  o The landing length shall be a minimum of 60 inches clear.
  o If ramps change direction at landings, the minimum landing size shall be 60 inches by 60 inches.
- If a ramp run has a rise greater than 6 inches or a horizontal projection greater than 72 inches, then it shall have handrails on both sides.
- The cross slope of ramp surfaces shall be no greater than 1:50.
- Ramps and landings with drop-offs shall have curbs, walls, railings, or projecting surfaces that prevent people from slipping off the ramp. Curbs shall be a minimum of 2 inches.
PART 1: INTRODUCTION
PART 1: Introduction

A. Purpose of Study

On May 24, 2001, HDR submitted a proposal to Mark Miller, Transportation Services Manager, City of Georgetown, to perform a sidewalks study/assessment project for the city. It was stated in that proposal that our scope of services would be as follows:

- Inventory current sidewalk conditions (based on map of "selected routes" provided by the city)
- Check ADA compliance for both current sidewalks and city standards for sidewalks
- Evaluate proposed sidewalk routes (and determine/confirm appropriate designs for major/minor arterials, neighborhood collectors, Historic Districts, and schools/churches)
- Establish criteria for placement of sidewalks (based on city goals)
- Prioritize proposed sidewalk routes
- Develop preliminary concepts for sidewalk projects (especially in high-visibility areas)
- Develop list of projects that approximately equals the current/immediate $500,000 construction budget
- Illustrate all priorities/concepts on a plan
- Develop a report including the inventory/analysis, evaluations, criterion established, priorities, concepts and recommendations
- Identify any issues that will affect implementation
- Suggest revisions to city standards incorporating ADA requirements

A preliminary amount of research/preparation was done by HDR prior to traveling to Georgetown to kick-off the project on June 19, 2001. We met with several City agencies and personnel who would have an impact on meeting the objectives of this study. We also began the process of conducting the fieldwork and observations that would be required for HDR to give the city our professional evaluations and design recommendations.

B. Study Area

HDR was given a "Planned Sidewalk Routes" drawing that had been prepared by the city at the outset of this engagement (Refer to the Planned Sidewalk Routes Exhibit in Part 4 – page 4.2 of this report). This drawing was a very comprehensive diagram that included planned sidewalks beyond the current city limits, extending into many of the unincorporated areas adjacent to the city. This drawing was also more of a "roadways" plan rather than a plan specific to pedestrian circulation. HDR quickly concluded that a comprehensive evaluation of factors affecting the placement of sidewalks would be beneficial to the city. Such an analysis would help us fully understand where this sidewalk study could have the greatest impact, and tell us exactly what the "study area" for this report should be.

C. Data Gathering
Gathering accurate and dependable data is key to a comprehensive evaluation of Georgetown's existing and proposed pedestrian network. The initial data for this study was collected from a "windshield tour" performed with Mark Miller. Several areas were noted as needing evaluation, as well as recommendations for improvement. We then began to gather targeted data, beginning with the major street systems in the city and how they did or did not adequately provide for safe pedestrian circulation. We walked all the major streets (and a good number of the minor/residential streets), observing the existing sidewalk conditions, noting where new sidewalks need to be established, and photographing various potential sidewalk opportunities. Two individuals spent a total of six full days documenting the existing conditions and evaluating potential areas for pedestrian circulation. Data collected included the following:

- Mapping of current sidewalk locations/conditions
- Photography of current sidewalk locations/conditions
- Current accessible ramp locations/conditions
- Land uses along major street systems
- Identifying existing traffic signalization and/or crosswalk locations

While in Georgetown performing this fieldwork, HDR also met with several city agencies and other public officials to get additional input for this report. We began with the city planning office and obtained current zoning maps. We also consulted with GISD officials to inquire about any special needs or concerns they had with regards to sidewalks in the city. Following that discussion, we were encouraged to meet with Ms. Wanda Smith, the GISD busing coordinator. She gave us detailed information about each of the school bus routes, and the issues involved with getting children to and from each of the schools in the city. This was enlightening information particularly with regards to the bus pickup locations. We also had phone conversations with officials from TXDOT regarding the issues/problems they would have with sidewalks within their rights-of-way. The following data sources were evaluated as well in the preparation of this study:

- Aerial Photography
- USGS maps
- City of Georgetown Century Plan
- Other miscellaneous Chamber of Commerce materials

Once all this data had been gathered, it was appropriately incorporated into electronic master files used for producing the exhibits in this report.
PART 2: ANALYSIS TO DETERMINE FOCUS AREA
PART 2: Analysis to Determine “Focus Area”

A. Analysis

Once all the data was gathered (and our base plans completed), HDR began the process of analyzing what we had discovered, and how it might lead us to this study’s “focus area”. Several questions emerged which needed to be answered in order to properly analyze the city’s potential for becoming a “pedestrian-friendly” place. For example:

- “What factors most dramatically affect pedestrian movement in the city?”
- “What land uses/functions and/or “people generators” would have the most pedestrian traffic associated with them?”
- “What existing or planned improvements would most impact sidewalks in the city?”

The answers to these questions began to form the framework for what needed to be further analyzed in order to comprehensively determine the best locations in the city for sidewalks. We decided to analyze several elements individually, and then look for “patterns” that would point us in the best possible direction for the greatest opportunities for planned sidewalk development. What follows is a quick review of each of these elements, and what we discovered in the process of analyzing them individually.
1. Roads

We studied the roads in the city first because they are the single-most influential factor in determining "patterns" of pedestrian movement throughout Georgetown. The majority of all existing and proposed sidewalks will occur along the edge of a roadway system. At the same time, roads present the biggest "obstacle" to safe pedestrian movements throughout the city.

Georgetown is divided into two separate parts by the most significant road in the city, that being U.S. Interstate 35. This road is the largest, most-traveled highway in central Texas, carrying thousands of vehicles daily through this area from Laredo to the south all the way to the Oklahoma border to the north. The majority of vehicles that come to Georgetown probably arrive via U.S. Interstate 35. However, this highway becomes a major hindrance to pedestrian circulation from east to west within the city. Traffic signalization and some pedestrian crossings have been provided at certain intersecting roads along this highway (at Leander Road, University Drive and Williams Drive), but in general these are not considered to be safe pedestrian crossings.

Beyond U.S. Interstate 35, Williams Drive, Austin Avenue, Leander Road, and University Avenue are all critical state highways that provide important connections within the city for both vehicles and pedestrians. All of these roads could serve as more important "linkages" for pedestrian movement in the city, but numerous sidewalk segments are missing causing the link to be broken. For these state highways, TXDOT has an informal policy that sidewalks within their right-of-way must be "protected" with a curb along the roadway edge. This becomes a factor for existing roads that do not currently have curbs. In other words, before a sidewalk could be added, a curb would also be required.

Future roads in the city (including expansion of the Inner Loop Road and the proposed State Highway 130) could provide for additional pedestrian circulation, but for the most part they are planned for currently undeveloped areas absent of a big demand for pedestrian movements.

Traffic signals at roadway intersections throughout the city become important elements for providing "safe crossings" by pedestrians as well. These signals, along with appropriate pavement markings, must be considered vital to safe movements of pedestrians within the city. (Refer to the Roads Exhibit on the following page.)