

Defining Community Ambulation From the Perspective of the Older Adult

Cynthia J. Brown, MD, MSPH^{1,2}; Christy Bradberry, DPT³;
Shalany Green Howze, DPT³; Lindsay Hickman, DPT³;
Heather Ray, DPT³; Claire Peel, PhD, PT, FAPTA³

ABSTRACT

Background: Little is known regarding destinations and distances necessary for independent community ambulation after enactment of the Americans with Disability Act.

Objective: To qualitatively describe community locations visited by older adults and to determine ambulation distance required to visit these locations.

Design: Descriptive study.

Methods: Nineteen subjects, 65 years or older and who were independent with transportation, ambulation, and basic activities of daily living, were recruited from 4 senior centers in urban areas of central Alabama. The study was divided into 2 phases. In part 1, using qualitative methodology, older adults were interviewed to determine locations they visited in the community. In part 2, we visited the types of locations identified in part 1 and measured distances required to conduct business at each location. Obstacles, if any, to reaching these locations were identified.

Results: Subjects had a mean age of 76.6 (5.8) years; 80% were women, and 50% lived alone in the community. Locations visited by subjects were identified and measured. Researchers categorized locations as *essential, essential to some people, and nonessential*. Essential locations included bank, doctor's office, and either a grocery store, pharmacy, and department store or a "superstore." A minimum of approximately 200 m was required for community ambulation to most locations, although this distance varied significantly among locations.

Limitations: Geographic location and urban setting may not reflect distances necessary for rural residents.

Conclusions: Physical therapists can use the 200-m distance as a starting point for goal-setting for older adults desiring a return to community independence.

Key Words: aging, mobility, walking

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¹Birmingham/Atlanta VA Geriatric Research, Education and Clinical Center, Birmingham, Alabama.

²Department of Medicine, University of Alabama at Birmingham.

³School of Health Professions, University of Alabama at Birmingham.

Address correspondence to: Cynthia J. Brown, MD, MSPH, Birmingham VAMC, GRECC 11-G Room 8226, 1530 3rd Ave South, Birmingham, AL 35294 (cbrownmd@uab.edu).

INTRODUCTION

Community ambulation has previously been defined as locomotion outdoors that includes activities necessary to live independently, such as visits to the bank, pharmacy, and supermarket.¹ Recovery of community ambulation ability has most often been studied among patients after stroke^{1,2} and inability to leave one's home, and reduced levels of community ambulation have been linked to poorer quality of life in this population.³ Maintenance of independent community ambulation can be integral to quality of life for older adults and their ability to participate in society.⁴

The International Classification of Functioning, Disability, and Health (ICF) describes an interaction of physical, social, and environmental factors with an individual's health conditions that produces outcomes of interest for physical therapists.⁴⁻⁶ *Activity*, defined as execution of a task or action by an individual, is often the focus of rehabilitation efforts. Therapists work to improve endurance, increase gait speed, and improve an unsteady gait or poor ability to climb stairs, activities crucial to maintenance of independence. However, another important domain of the ICF model is *participation*, defined as an individual's involvement in a social situation.⁵ The Institute of Medicine 2005 Workshop on Disability in America identified participation in society as a critical domain of function, integral to quality of life.⁴ Community ambulation for older adults may be vital for participation in society.

The ICF also recognizes the role of the environment in determining an individual's ability to participate in society. Community mobility may be strongly affected by the environment and the physical requirements for community mobility may not be limited to variables associated with speed, distance, and terrain.⁷ In one study, Shumway-Cook et al⁷ identified environmental features that interfered with community mobility in a cohort of older adults with and without disabilities. On the basis of a conceptual model,⁸ attributes of the physical environment were grouped into 8 dimensions. For an individual to be mobile within an environment, these external demands, or environmental dimensions, must be met. Among the 8 dimensions examined, 4 areas, temporal factors, physical load, terrain, and postural transition, differed between those with and without mobility disability.⁷

Physical environment, including the 4 dimensions identified by Shumway-Cook et al,⁷ may have been influenced to a certain extent by the enactment of the Americans with Disability Act (ADA).⁹ To ensure equal opportunity in employment, government services, public accommodations, and transportation for persons with disabilities, a variety of physical changes to the environment have occurred. These include wheelchair ramps, handicapped parking spaces, and wheelchair-adapted transportation services to allow accessibility.⁹ While originally designed to provide access for persons with a disability, these physical adaptations may be beneficial for older adults, even if not with disability.

For physical therapists, knowledge of the distances required to return a patient to community ambulation is important for goal-setting and discharge planning. However, despite the clinical necessity for information regarding essential distances, few studies have examined what is required for older adults with respect to distance and obstacles that need to be overcome in order to ambulate in the community, especially since enactment of the ADA.^{1-3,10-12} In addition, necessary destinations have been determined through expert opinion or needs assessment. No study to date has examined community ambulation from the perspective of older adults with regard to what locations they visit regularly to maintain independence and quality of life, an important correlate of participation in society.

The purposes of this study were to describe, from the perspective of older adults, the locations routinely visited during the previous 6 months and to determine the ambulation distance required when visiting these important locations.

METHODS

Design

This study was divided into 2 phases. In part 1, we interviewed older adults to determine the locations in the community that they routinely visited to accomplish tasks necessary to live independently. In part 2, we visited the types of facilities that were identified in part 1 and measured the walking distance required to conduct business at each location. Obstacles to reaching these locations were identified by the researchers. The study was approved by the University of Alabama at Birmingham institutional review board.

Part 1: Subject Interviews

Subjects

We identified 4 senior citizen centers in different locations within the urban counties of Jefferson and Shelby in Alabama and received permission from the directors of each center to recruit subjects at the facilities. Inclusion criteria were as follows: being 65 years or older, independent with transportation (either able to use public transportation or able to drive), independent ambulation (with or without an assistive device), and independent in basic activities of daily living (bathing, dressing, eating, transferring, or toileting). Subjects were asked whether they were interested in participating in an interview and then written informed

consent was obtained. After signing the informed consent, subjects were screened to determine whether they met the inclusion criteria. If they did not meet the criteria, the subjects were thanked for their interest. If they met the criteria, the interview was continued. Of the 20 subjects who expressed interest, all 20 provided written consent. One subject withdrew after completing his survey.

Interview

A semistructured interview guide was used (Appendix 1). Prior to initiation of the study, the 4 student researchers working with their faculty advisors developed the interview guide. As a group, they rehearsed the interviews and discussed possible questions the subjects might ask. They developed a protocol for documenting the subject's answers to the interview questions. The student researchers went in pairs to recruit and interview subjects at the senior centers. On average, interviews lasted 20 minutes. Subjects were asked about their living environment, use of handicapped parking, use of assistive devices (including motorized carts), transportation method, and any need for rest breaks when walking. Subjects were asked where they went in the community during the past week, month, and 6-month period. Specifically, subjects were asked, "During the past week, name all the places in the community you have visited." Subjects were also asked whether there were places that they would like to be able to go but were unable.

All responses were spontaneous and no prompts were used during the interview. However, to ensure the accuracy of the information, the researchers restated the locations reported by the subjects throughout the interview and asked the subject to comment on the information. This served to ensure the validity of the information being documented and may have served as a trigger for recall of additional information. Probes were also used to get more detailed and specific information. For example, if the subject reported going to the grocery store, follow-up questions were used to determine whether this was a stand-alone grocery store or a superstore. Recruitment was continued until no new community locations were identified and data saturation was achieved. In all, 19 community-dwelling older adults were enrolled.

Part 2: Identification and Measurement of Community Distances

Identification and categorization of locations

Using the results of the interviews, we identified the types of locations that older adults regularly visit. The types of locations were then placed by the researchers into 4 categories on the basis of whether or not travel to the location would be considered essential for living independently in the community. The 4 categories developed by researchers were as follows: essential option 1, essential option 2, essential for some people, and nonessential. These categories were chosen a priori, on the basis of available literature and expert opinion, to give structure to the subject's responses. *Essential* was defined as those locations that were necessary

to meet basic needs including food, clothing, money, and health care needs. The *essential for some* category added locations that would be necessary to meet basic needs for some but not all of the subjects. For example, if an older adult had a car for transportation, then a gas station would be essential. Older adults using public transportation would not need to visit a gas station. *Nonessential* were locations that might be considered quality-of-life enhancers but were not necessary to meet basic needs.

Essential locations included grocery store, pharmacy/drug store, department store, bank, and doctor's office. A "superstore" (Wal-Mart, K-Mart, Target, etc) combines the grocery, pharmacy, and department store in 1 location. Therefore, the category "essential option 1" included bank, doctor's office, and superstore, and "essential option 2" included bank, doctor's office, grocery store, pharmacy, and department store. The "essential for some people" category included locations that were identified as essential for some subjects but not for all subjects. These locations included religious facilities, post office, gas station, and doctor's office located within a hospital complex. "Nonessential" locations included restaurants, senior centers, shopping malls, cemeteries, beauty parlor/barbershops, hospitals, and libraries.

Identification of sites to measure

We recognized the large variation in specific sites within a type of location. For example, a pharmacy/drug store could be a small store with parking directly in the front and therefore a short distance to walk to obtain medications. On the other hand, a pharmacy/drug store could be fairly large, with the prescription counter at the back of the store, and a large parking lot. Therefore, for each type of location, we selected 3 facilities that represented various sizes and measured the required walking distances.

Ambulation distance measurement

Distances were measured using a Lufkin Pro Series measuring wheel (Cooper Hand Tools, Apex, North Carolina). Student researchers were trained in the proper use of the measuring wheel by a faculty advisor. After extensive discussion of the measurement techniques to be utilized, protocols were developed to identify the specific distances to be measured at each site (Appendix 2). The researchers practiced as a group before being paired for the measurement tasks. The underlying premise for identifying the specific walking distance to measure was as follows: "How far would an individual need to walk to accomplish the task associated with the purpose of the facility?" For example, a trip to a drugstore to purchase medications would involve walking from the parking lot to the prescription counter and then returning to one's car.

The minimum (Min) distances varied on the basis of what task was required. Using the grocery store as an example, the Min distance included walking to the bread aisle, the checkout counter, and back to the parking lot. For the Min distances, we measured a handicapped parking space.

For the maximum (Max) distance, we measured the length of each aisle that contained products typically purchased on a regular basis. This distance was the Max distance that an older adult would need to walk to accomplish a routine grocery trip. When determining Max distances, we measured from the middle of the parking lot rather than from the handicapped parking space.

For some locations, the activity associated with the facility involved an extended rest period. For example, when visiting a religious facility, most people attend a service or class that involves sitting for a period of time during which time recovery can occur. In these cases, the walking distances were determined as "1-way trips," with the assumption that the person would have adequate rest time before leaving the facility.

Obstacle identification

At each location, any obstacles or barriers to access were identified by the investigators. Specifically, the location of handicapped parking and availability of motorized carts were noted. Curbs, steps, or ramps that would need to be navigated to enter the facility were identified.

Data Analysis

The characteristics of the study participants were described with appropriate descriptive statistics including frequencies, proportions, means, standard deviations, and medians. The criteria for the 4 "categories" (essential option 1, essential option 2, essential for some, and nonessential) were determined prior to the interviews. After completion of the interview, researchers individually coded the subject's responses on the basis of the previously defined categories. After independently coding the locations, the student researchers and their faculty advisor met as a group and reviewed the codes. Discrepancies between reviewers led to the review of the original data and the process continued until all reviewers were in agreement about how to categorize each location. The majority of the group's discussions centered on categorization of doctor's offices and pharmacies—specifically, how to categorize a doctor's office that was located in a hospital versus one that was located in a professional building. All distance measurements were converted to meters. Means, standard deviations, and ranges for Min and Max distances for the 3 locations per facility type were calculated. All analyses were performed with SAS statistical software, Version 9.1 (SAS Institute, Inc, Cary, North Carolina).

RESULTS

Part 1: Subject Interview Responses

Characteristics of the cohort are presented in Table 1. Overall, the group had a mean age of 76.6 (5.8) years; 80% were women, and 50% lived alone in the community. The majority of participants utilized private transportation and the handicapped parking was used by approximately half of the participants. Only 4 participants used an assistive device for gait in the community.

Table 1. Baseline Characteristics (N = 19)

Characteristics	
Age, mean (SD), y	76.6 (5.8)
Gender, female, n (%)	16 (84)
Lives alone, n (%)	9 (47)
Uses ambulatory device, n (%)	4 (21)
Uses handicap parking, n (%)	10 (53)
Uses motorized cart for shopping, n (%)	4 (21)

Table 2 presents a summary of the 12 locations mentioned most frequently during the qualitative interviews as locations visited by these community-dwelling older adults in the previous 6 months. More than 75% of the older adults noted having gone to the senior center, grocery store, and doctor’s office and to visit family or friends’ homes. Religious facilities and Wal-Mart were also popular destinations for the cohort. One location not previously mentioned in any other study of important community destinations was the cemetery, which was noted by 2 participants.

The majority of subjects noted that they were able to go to all the places they would like to go. Only 4 participants expressed a desire to visit locations they were currently unable to visit, specifically the mall, Wal-Mart, and state parks and on a cruise. We expected that subjects would report inaccessible buildings as the reason for being unable to visit these additional locations of interest. Instead, the persons interviewed indicated that they did not visit these desired locations because some places were too far to travel alone, they had no one to travel with, or their public transportation did not take them to the location. Two par-

Table 2. Locations Visited by Participants in the Previous 6 Months on the Basis of Self-report (N = 19)^a

Location	n (%)
Grocery store	16 (84)
Doctor’s office	15 (79)
Visit to family/friends home	15 (79)
Religious facilities	14 (74)
Wal-Mart	13 (68)
Other free-standing store	10 (53)
Restaurant	8 (42)
Shopping mall	7 (37)
Beauty parlor/barbershop	6 (32)
Bank	6 (32)
Pharmacy	5 (26)

^aParticipants were encouraged to name as many locations as they could remember having visited in the previous week, month, and 6-month time period. All responses were spontaneous and not prompted by the interviewers.

ticipants described being limited by their inability to drive at night.

Part 2: Community Distances

On the basis of locations reported by the participants, Min and Max distances were measured for each location type (Table 3). The shortest distance needed to walk was 9 m for a small beauty parlor/barbershop. The longest distance measured was an indoor shopping mall at 1745 m. Overall, the walking distance needed to accomplish the specific task for a location was approximately 200 m for the majority of locations visited by this group of older adults. The mean Min distance that an individual would need to ambulate was less than 200 m for all locations described by the older adults, with the exception of hospital visitations. The mean Max distance that individuals would need to ambulate was less than 600 m, with the exception of superstores and shopping malls. As an example, a typical trip to a superstore might involve walking up

Table 3. Means and Ranges of Community Distance Measurements (in Meters)

Destination ^a	Mean (SD)		Range
	Minimum Distance	Maximum Distance	
Essential locations option 1 ^b			
Doctor’s office/ professional building	38 (17)	64 (9)	39–74
Bank	80 (39)	136 (39)	46–181
Superstore	183 (49)	609 (120)	150–706
Essential locations option 2			
Doctor’s office/ professional building	38 (17)	64 (9)	39–74
Bank	80 (39)	136 (39)	46–181
Pharmacy	82 (26)	216 (106)	57–283
Grocery store	129 (24)	570 (195)	107–696
Department store	180 (79)	585 (191)	132–785
Essential to some locations			
Gas station	44 (21)	68 (34)	21–99
Post office	77 (12)	152 (11)	63–163
Religious facility	77 (47)	187 (22)	48–212
Doctor’s office/in a hospital	93 (40)	192 (13)	47–206
Nonessential locations			
Beauty parlor/ barbershop	30 (18)	52 (26)	9–72
Restaurant	36 (9)	102 (16)	28–119
Cemetery	18 (8)	129 (57)	12–188
Senior center	64 (34)	141 (45)	25–191
Library	84 (34)	304 (170)	45–500
Hospital visitation	260 (78)	455 (259)	171–749
Mall	161 (31)	1309 (450)	142–1745

^aFor each location, 3 different distances were measured.
^bSee the “Methods” section for detailed descriptions of location categories.

and down several aisles to obtain needed items. The distance that would need to be walked to accomplish these activities would be 550 to 600 m.

The largest variation in ranges was found at shopping malls. In the “essential” categories, the highest Min distance needed to be functional and successful at necessary tasks was identified as 183 m at the superstores.

During our distance measurements, we found most places in our community were very accessible for older adults. The handicapped parking was almost always convenient, although some of the ramps and handicapped parking spaces were located far enough from the entrance to be questionably beneficial. Some locations had special parking for senior citizens or special seating close to the entrance. Larger facilities usually provided benches throughout the facility for rest breaks. One concern identified by our subjects was the frequency of getting lost when visiting large hospitals. Even if people knew their destination and the most advantageous place to park, they faced some of the longest walking distances found in our study. Importantly, while we encountered curbs, uneven or slippery walking surfaces, steps/stairs, hills, steep ramps, and heavy doors during our measurements, none of these obstacles prevented the older persons we interviewed from entering the facilities.

DISCUSSION

Using participant interviews, a methodology not previously employed, we determined locations visited by older adults living independently in the community. Locations reported by the subjects and categorized by the researchers as essential included bank and doctor’s office and either a grocery store, pharmacy/drug store, and department store or a superstore that combines these 3 types of services. Additional locations of importance to some but not all subjects included religious facilities, restaurants, senior centers, shopping malls, cemeteries, beauty parlor/barbershops, and libraries. Measurement of the minimum distance required to visit all locations demonstrated that an ability to walk 200 m was required for community ambulation to most locations, both essential and nonessential, although this distance varied significantly among locations.

Previous studies identifying locations of importance for community ambulation selected supermarket, department store, variety store, bank, post office, pharmacy, restaurant, beauty parlor/barbershop, and church.^{10,12} While these locations may be considered essential, they do not include recreation or leisure activities that might be important for quality of life for older persons. Our study participants noted several locations not previously identified, such as libraries, cemeteries, and shopping malls. Having the ability to visit these important destinations allows participation in society and improved quality of life for this group of community ambulators.

Previous studies of the distance required to be considered a community ambulator has varied on the basis of the

study. One study noted that the longest distance required to ambulate to reach the required destinations was 480 m.¹¹ This study also found distances tended to be shorter in the small cities and rural areas than in urban cities.¹¹ In a study by Cohen et al,¹⁰ the maximum distance an older person needed to be able to walk to be functional in the community was identified as 360 m. Questionnaire responses from this study revealed that the subjects visited an average of 2 destinations per trip.¹⁰ Therefore, the Max distance was doubled and the Min distance of 720 m was used as an indicator of community ambulation.

While visiting several locations during the same trip may be ideal, this is not essential to be independent in the community. Even in the mall, where walking distances are greatest, seating areas are available to allow rest periods between bouts of walking. As our study demonstrates, it is possible to be a community ambulator with an ability to walk 200 m. However, to accomplish the typical trip to the store, which usually includes going to several places within a location, older persons need to be able to ambulate approximately 600 m. This is comparable with distances noted in previous research studies.¹⁰⁻¹²

Importantly, several changes have occurred since these studies were conducted. Arguably, the most important change is the ADA signed in 1990.⁹ This act provides standards for accessible design and requires commercial facilities to be designed, constructed, and altered in compliance with these standards. As a result, handicapped parking and wheelchair-accessible ramps, among other adaptations, are now readily available.¹³ Another beneficial consequence of the ADA mandates is the concept of universal design.¹⁴ Universal design is an approach toward the design of products and environments to make them usable for a wide variety of persons and not just those with disabilities. For older adults, this design trend may permit the maintenance of community mobility as modifications that once were considered specialized become routine.¹⁴ An example might be the addition of electric doors in many stores. While originally developed for persons with a disability, the ease of use is beneficial to all who shop in these locations. Finally, in addition to modifications of outside obstacles and parking, walking distances have also changed, particularly with the introduction of superstores that fulfill several needs at the same location.

An important contribution of our study is the use of the participant interview to determine locations of importance for the older adults. In addition, our use of spontaneous responses, as opposed to prompted responses, should have minimized the biasing effects of social desirability.¹⁵⁻¹⁷ Social desirability is our natural tendency to answer questions in a socially acceptable manner. If presented with the idea that others have answered a question in a specified manner, subjects may be more likely to agree in order to be perceived as socially acceptable.¹⁵⁻¹⁷ The older adults who were interviewed may be more likely to respond favorably to a question about where they go if it was perceived to be what the interviewer wanted to hear or what other older adults had reported.¹⁵⁻¹⁷ This approach may have resulted

in some subjects failing to recall all the locations visited in the previous 6 months. However, because we interviewed until no new locations were verbalized, we believe we captured all the important locations.

Limitations include the geographic location and urban setting of the study, which makes it less generalizable. Specifically, the **climate is mild** and inclement weather (eg, snow and ice) is rare. Larger urban cities in different geographic regions may produce a different list of places visited and different distances for each site. However, our results may still be applicable as essential locations, such as superstores, may be similar in both urban and rural settings because these are national chain stores and not local stores. Public transportation use and access to other methods of transportation may also vary by city and socioeconomic status. In an attempt to provide a representative sample, we chose multiple interview locations and included participants from different living environments. We did not collect race, ethnicity, or socioeconomic information from the group because we did not think that this would influence where subjects went in the community. However, because we did not collect information regarding race or socioeconomic status, we cannot be assured that we achieved a representative sample.

This study demonstrates that older adults consider a wide variety of locations important. Physical therapists focused on recovery of function or maintenance of community ambulation need to be aware of the locations visited by older adults. While some locations might be considered essential, less obvious locations, such as religious facilities, libraries, cemeteries, and senior centers, may add considerably to quality of life. Importantly, the distances required to achieve quality of life may be very similar for both essential and nonessential destinations.

The American Physical Therapy Association strongly supports the utilization of evidence-based practice. This approach involves incorporation of the best available scientific evidence with the patient's values to determine the treatment approach. **Some therapists may assume that the 150 ft suggested by the functional independence measure¹⁸ testing is a sufficient distance for community ambulation.** This is a standardized testing distance, which could lend support to its use. However, on the basis of the evidence provided by this study, **we suggest that a distance of 200 m or 4 times the functional independence measure testing distance may be more appropriate.** This distance allowed the visitation of essential locations including those where basic necessities, such as food and medications, were obtained. Perhaps, more important from a quality-of-life perspective, this distance permitted the visitation of nonessential locations where leisure and recreational activities take place. The evidence suggests that a distance of 200 m may be a

more suitable starting point for setting treatment goals and for discharge planning to determine whether community ambulation is achievable for their older adult patients. However, discussion with patients regarding their individual needs remains critical because there will be significant variability based on individual patient circumstances.

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Appendix 1

Interview Guide

“Hello, my name is _____. I am a physical therapy student at _____”

Would you like to be considered for our study about walking distances? Yes No
 Are you 65 years of age or older? Yes No

“We are looking for people who are able to get around without help in the community. First we would like to ask you a couple of questions about your community activities.”

SCREENING QUESTIONS

1. Do you require assistance to walk and get around in the community? Yes No
 (Examples: shopping, visiting friends, or going to the bank)
2. Do you drive yourself or use public transportation? Yes No
3. Does anyone help you with your activities of daily living? Yes No
 (Examples: dressing, bathing, using the bathroom, and getting around within your house)

To continue subject must answer NO to #1, YES to #2, NO to #3.

If subject does not qualify, thank him or her for talking with us.

If subject qualifies, present and discuss informed consent form.

Written consent received from this individual? Yes No

QUESTIONNAIRE

1. Do you live with someone? Yes No Spouse Family Friend (Other)
2. During the past week, name all the places in the community you have visited.
 (If subject reports Wal-Mart or Target, ask whether this is a regular or superstore. For doctor’s visits, ask subject if he or she goes to a hospital or office.) _____
3. Were there any places you did not visit this week that you visited last month? Yes No
 If so, name them _____
4. Are there any places not included on the previous lists that you have visited within the past 6 months? Yes No
 If so, name them _____
5. A. Do you use handicapped parking? Yes No
 B. Do you use any assistive devices to walk or get around? Yes No
6. Do you use motorized carts or other equipment provided by the stores? Yes No
7. Are there any places you would like to go/need to go, but are unable to? Yes No
 If so, name them _____
8. When doing any of your activities in the community, do you require rest breaks? Yes No
 If so, how many and how long? _____

Appendix 2

Protocols Used to Identify the Specific Distances to Be Measured at Each Location		
Location	Minimum Measured	Maximum Measured
Bank	HC to entrance to teller to entrance	ML to entrance to teller to individual desk to entrance
Beauty parlor/cosmetic shop	HC to entrance to hairstylist chair	ML to entrance to shampoo area to hairstylist chair
Cemetery	Car to closest grave site to car	Car to farthest grave site to car
Department store	HC to entrance to selected clothing section to check-out counter to entrance	ML to entrance to selected clothing section to restroom to household appliances to check-out counter to entrance
Doctor's office (hospital)	HC to entrance to closest office check-in counter to waiting room	ML to entrance to farthest office check-in counter to waiting room
Doctor's office (stand alone)	HC to entrance to desk to lobby to examining room	ML to entrance to desk to lobby to examining room
Gas station	Gas pump to entrance to check-out counter to pump	Gas pump to entrance to drinks to snacks to counter to pump
Grocery store	HC to entrance to bread aisle to check-out counter to entrance	ML to entrance to commonly purchased items aisles to entrance
Hospital	HC to entrance to front desk to closest patient room	ML to entrance to front desk to farthest patient room
Library	HC to entrance to closest book section to circulation counter to entrance	ML to entrance to selected book aisles to restroom to circulation counter to entrance
Mall	HC to entrance to closest store to entrance	ML to entrance to selected stores to entrance
Pharmacy	HC to entrance to drop-off counter to entrance	ML to entrance to drop-off counter to selected aisles to pick-up counter to entrance
Post office	HC to entrance to cashier to post office box back to entrance	ML to entrance to mail drop-off to cashier to post office box to entrance
Religious institutions	HC to entrance to selected pew in sanctuary	ML to entrance to Sunday school room to restroom to selected pew in sanctuary
Restaurant	HC to entrance to table	ML to entrance to restroom to table
Senior center	HC to entrance to socializing room	ML to entrance to socializing room to restroom to socializing room
Superstore	HC to entrance to bread aisle to check-out counter to entrance	ML to entrance to pharmacy to selected grocery aisles to selected clothing aisles to entrance

Abbreviations: HC, handicapped parking lot; ML, mid-lot of nonhandicapped parking lot.