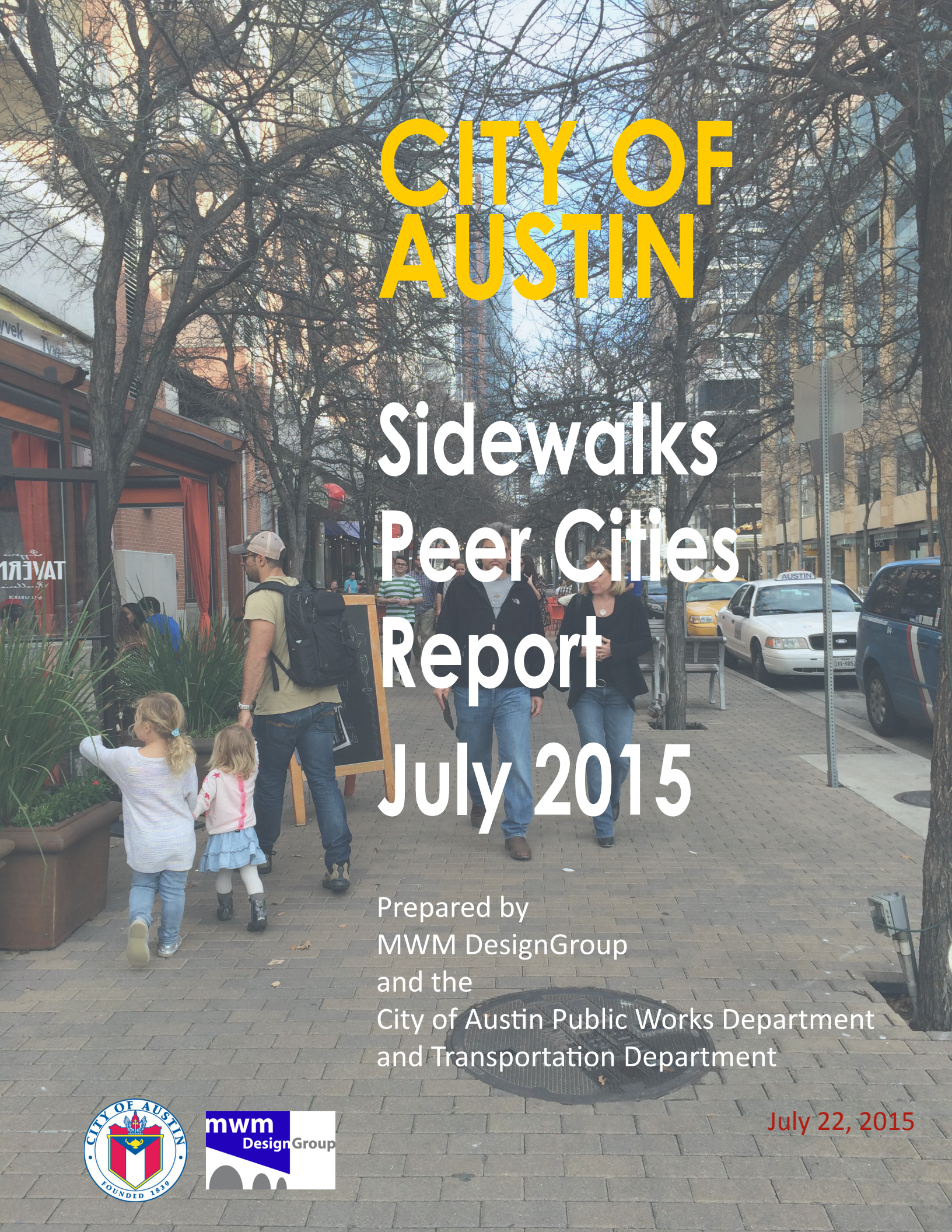

CITY OF AUSTIN

Sidewalks Peer Cities Report July 2015

Prepared by
MWM DesignGroup
and the
City of Austin Public Works Department
and Transportation Department

July 22, 2015

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Section 1
EXECUTIVE SUMMARY

The City of Austin Public Works Department is currently working on an update to the 2009 Sidewalk Master Plan. This City of Austin Sidewalks Peer Cities Report is a preliminary step that will inform the preparation of the 2015 Sidewalk Master Plan and ADA Transition Plan Update. This report is intended to collect and present data among Austin's peers regarding sidewalk program funding, implementation, and best management practices. Recommendations regarding City of Austin policies and procedures are not included in this report, but will be developed with stakeholder input and presented later in the update process.

This report presents data from seven Peer Cities (including Austin):

- **Austin, Texas**
- **Charlotte, North Carolina**
- **Houston, Texas**
- **Minneapolis, Minnesota**
- **Nashville, Tennessee**
- **San Antonio, Texas**
- **Seattle, Washington**

Each of the Peer Cities responded to a questionnaire and participated in an interview via conference call to assist in data collection. The key findings are summarized below.

- **Sidewalk Inventory**
  - Austin is missing sidewalks on almost half (49%) of its street frontages. This is similar to the missing (absent) sidewalk percentages in four of the other Peer Cities: Charlotte (50%), Houston (42%), Nashville (77%), and San Antonio (34%). The percentage of absent sidewalks is smaller in Seattle (29%), and almost non-existent in Minneapolis (6%).
  - Austin is one of five Peer Cities that maintains a Geographic Information System (GIS) database of its sidewalk inventory.

- **Sidewalk / Pedestrian Master Plan**
  - Austin is one of five Peer Cities that adopted **sidewalk master plans** between 2008 and 2011 with the intent to update these plans every 5 years.

- **Existing Sidewalk Maintenance**
  - Austin, Charlotte, and Nashville accept **responsibility for maintenance** of existing sidewalks. [Note: Austin does not accept responsibility for driveway maintenance.]
  - Among the four cities that require existing sidewalks to be maintained by adjacent property owners, only Minneapolis reports a successful history of property owner maintenance.
  - Austin, Nashville, and San Antonio are developing sidewalk **condition assessment** methodologies using mobile tablet data collectors directly connected to a GIS database.

EXECUTIVE SUMMARY (CONT.)

- **Absent Sidewalk Construction**
  - Austin, Nashville, and San Antonio prioritize new sidewalk construction using a GIS prioritization tool based on proximity to pedestrian attractors.
  - Only Austin and Nashville provide new developments the option to pay an "in lieu" fee when installation of sidewalks is not feasible.

- **Sidewalk Construction Costs**
  - Direct comparison of construction cost data was difficult due to differing methods of bid packaging, construction contracting, and cost reporting among Peer Cities. Based on the construction costs reported by each Peer City, Austin reports the third lowest construction costs per square foot, behind only Minneapolis and Houston.

- **Budgets / Funding**
  - Austin has spent an average of $9.56 per capita per year on sidewalks (maintenance and new construction combined) over the past five years. This ranks third out of the seven Peer Cities, behind Charlotte and Nashville.
  - Among the Peer Cities there is a wide range of maintenance funding per mile of existing sidewalk. Nashville stands out for its proactive sidewalk maintenance program that focuses on ADA compliance. Austin has a relatively low ranking for maintenance funding, partially due to Austin's somewhat unique program of "ADA transition" projects. These are projects completed under Austin's new sidewalk program that combine installation of new sidewalks with rehabilitation of existing sidewalks to complete ADA compliant routes between destinations.

- **ADA Compliance and Liability**
  - Nashville lost a **class action lawsuit** in 1998 and has operated under an agreement with the Department of Justice (DOJ) since voluntarily self-reporting in 2000.
  - Austin is one of six Peer Cities that have adopted an ADA Transition Plan for public right-of-way.

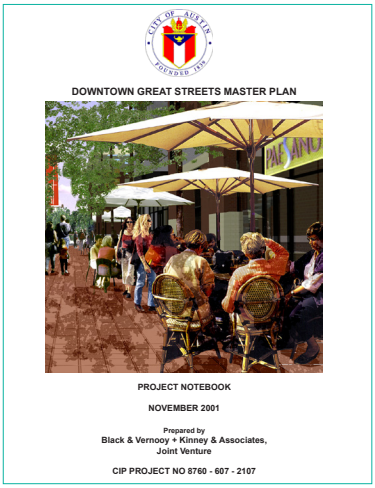
- **Pedestrian Safety**
  - Austin and Seattle are the only two Peer Cities that are working on **Vision Zero** initiatives.
  - Austin is one of six Peer Cities that has a **Pedestrian Advisory Council**.

Additional information regarding each of these findings is in Section 4.

Section 2
INTRODUCTION

Walkability has increased in priority for many cities around the nation, including those in Central Texas. Many cities have piloted or adopted proactive sidewalk programs to improve walkability and address specific needs for their community. Likewise, the City of Austin and its residents have been promoting walkability through policy and advocacy for a number of years. In June 2012, the City Council adopted the Imagine Austin Comprehensive Plan, which includes a strong emphasis on enhancing Austin as a walkable city. In June 2014, the City Council adopted a Complete Streets Policy, designed to help realize the Imagine Austin Comprehensive Plan vision for a healthy, green, vibrant, compact, and connected community.

The City of Austin Public Works Department is scheduled to complete an update to the 2009 Sidewalk Master Plan and ADA Transition Plan in 2015. City staff determined that a report of peer city sidewalk asset management best practices would inform the preparation of the 2015 Sidewalk Master Plan Update and therefore commissioned MWM DesignGroup to prepare a peer cities study.


DOWNTOWN GREAT STREETS MASTER PLAN

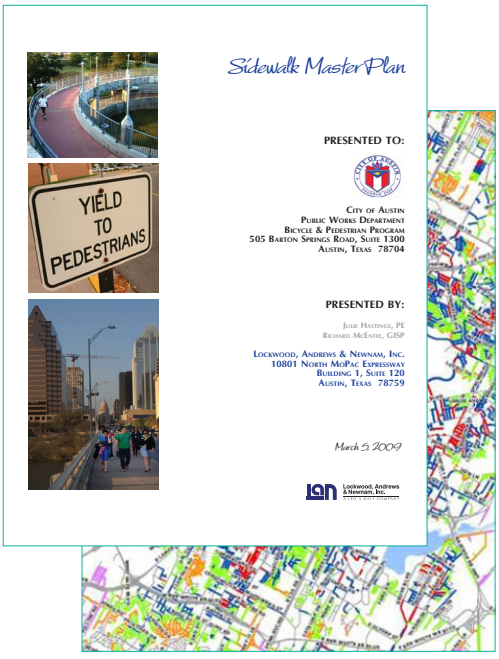
PROJECT NOTEBOOK

NOVEMBER 2001

Prepared by
Black & Vernooy + Kinney & Associates,
Joint Venture

CIP PROJECT NO 8760 - 607 - 2107

This report is intended to collect and present data among Austin's peers regarding best management practices for sidewalk programs. Recommendations regarding City of Austin policies and procedures are not included, but will be developed with stakeholder input and presented in the Master Plan Update. The findings of this report are summarized in section 4 and tabulated in Table 4-4.



When used in this report, the term "existing sidewalk" refers to any existing constructed sidewalk within public right-of-way, regardless of physical condition or accessibility compliance. The term "absent sidewalk" refers to any location within existing public right-of-way that does not currently contain a constructed sidewalk, but would be considered necessary for a complete citywide sidewalk network. The statistics in this report are focused on municipal sponsored sidewalk programs and do not include sidewalks constructed by private development/redevelopment, or sidewalks that are constructed ancillary to local, state, and federal projects. The data for Austin is for the existing city limits and does not include information for areas within Austin's extra-territorial jurisdiction.

Representatives of each of the seven Peer Cities took time from their responsibilities to participate in the success of this report. For their efforts, the City of Austin and its residents are grateful and hope that the City of Austin Sidewalk Peer Cities Report will be a helpful tool to promote walkability in each of their cities.

The City of Austin Sidewalk Peer Cities Report Team includes staff from MWM DesignGroup, the City of Austin Public Works Department, and the City of Austin Transportation Department.

Section 3

PEER CITIES SELECTION

SELECTION

The seven Peer Cities included in this report were selected by scoring quantifiable data of each potential Peer City. The objective of the selection was to identify cities sharing commonalities with Austin, rather than to simply identify cities with the highest walkability scores or the most advanced sidewalk program. Throughout the report, Austin is included as one of the seven Peer Cities.

The 2015 Sidewalk Master Plan and ADA Transition Plan Update is primarily focused on asset management and accessibility compliance. Therefore, international cities were not considered for Peer City selection because of the differences in accessibility laws between countries.

Twenty-five cities were identified as Peer City candidates, using the following three sets of criteria.

Cities ranked as the **"Top Ten Most Walkable Cities in the United States in 2014"** according to WalkScore.com:

1. **New York**, New York
2. **San Francisco**, California
3. **Boston**, Massachusetts
4. **Philadelphia**, Pennsylvania
5. **Miami**, Florida
6. **Chicago**, Illinois
7. **Washington D.C.**
8. **Seattle**, Washington
9. **Oakland**, California
10. **Baltimore**, Maryland

Ten cities from the **Imagine Austin Comprehensive Plan** Peer Cities (if not already included):

1. **Charlotte**, North Carolina
2. **Raleigh**, North Carolina
3. **Portland**, Oregon
4. **San Antonio**, Texas
5. **Fort Worth**, Texas
6. **Dallas**, Texas
7. **Houston**, Texas
8. **Minneapolis**, Minnesota
9. **Jacksonville**, Florida
10. **San Diego**, California

Five cities based on **proximity or knowledge of unique program characteristics**:

1. **San Marcos**, Texas
2. **Georgetown**, Texas
3. **Boulder**, Colorado
4. **New Orleans**, Louisiana
5. **Nashville**, Tennessee

Publicly available data (listed in the Reference section) was used to populate a comparative ranking selection matrix spreadsheet. The candidate cities were ranked based on an average of the weighted scores for each catergory evaluated. The complete Peer Cities Selection Matrix is included in Appendix A.

SELECTION (CONT.)

Six cities were selected based on the calculated rankings and the three sets of criteria below. Note that Fort Worth and Dallas ranked ahead of Houston, but declined participation. Raleigh, NC, ranked ahead of Nashville, but was not selected due to proximity to Charlotte, NC. Table 3-1 below shows some of the key data that was used in the selection matrix.

Top two ranking **Texas** cities:

- **San Antonio**
- **Houston**

Top two ranking **non-Texas** cities:

- **Charlotte, NC**
- **Nashville, TN**

Top two ranking **Imagine Austin Peer Cities**, ranked by Walk Score:

- **Seattle, WA**
- **Minneapolis, MN**

Table 3-1 Peer City Key Data

City	Proximity to Austin (miles)	Avg Temp (F)	Land Area (SQ mi)	Population (2013 Estimate)				Estimated Median Household Income in 2012	Walk Score	Walk-Friendly Community Status
				2013	Density	Avg Age	Change Since 2000			
Austin	N/A	69	298	885,400	2,971	31	35%	$52,453	35	Bronze
Charlotte	1,166	60	297	792,862	2,670	33	47%	$50,950	24	Bronze
Houston	162	69	600	2,195,914	3,660	32	12%	$42,847	44	
Minneapolis	1,173	46	54	400,700	7,420	32	5%	$47,604	65	Platinum
Nashville	753	59	526	658,602	1,252	34	16%	$43,399	26	
San Antonio	80	69	461	1,409,019	3,056	33	23%	$45,524	34	
Seattle	2,128	52	84	652,405	7,767	36	16%	$64,473	71	

WALK-FRIENDLY COMMUNITIES & WALK SCORE

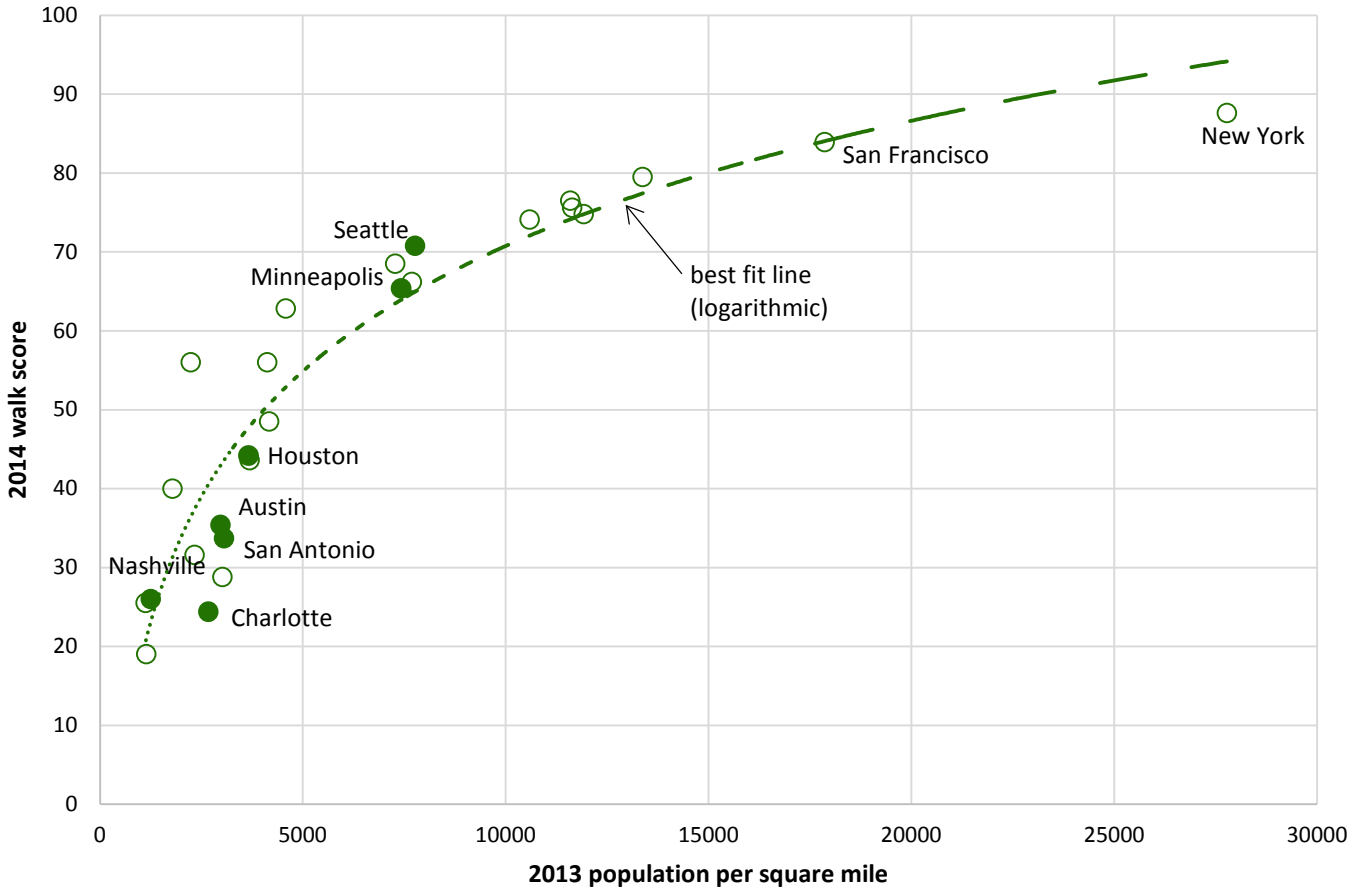
Austin is designated as a Bronze-level community by Walk Friendly Communities, and has a walk score of 35.4 of 100 by walkscore.com.

Walk Friendly Communities (WFC) is a national recognition program developed by the Pedestrian Bicycle Information Center (PBIC) to encourage towns and cities across the U.S. to establish or recommit to a high priority for supporting safer walking environments. The WFC program recognizes communities that are working to improve a wide range of conditions related to walking, including safety, mobility, access, and comfort. A Walk Friendly Community is a city or town that has shown a commitment to improving walkability and pedestrian safety through comprehensive programs, plans, and policies. Communities can apply to the program to receive recognition in the form of a Bronze, Silver, Gold, or Platinum designation.

Walk Score measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density. Data sources include Google, Education.com, Open Street Map, the U.S. Census, Localeze, and places added by the Walk Score user community.

Figure 3-1 below plots the 2014 Walk Score against the 2013 population density for each of the 25 peer city candidates, showing that higher density cities tend to be more walkable. The solid green data points represent the seven Peer Cities included in this report.

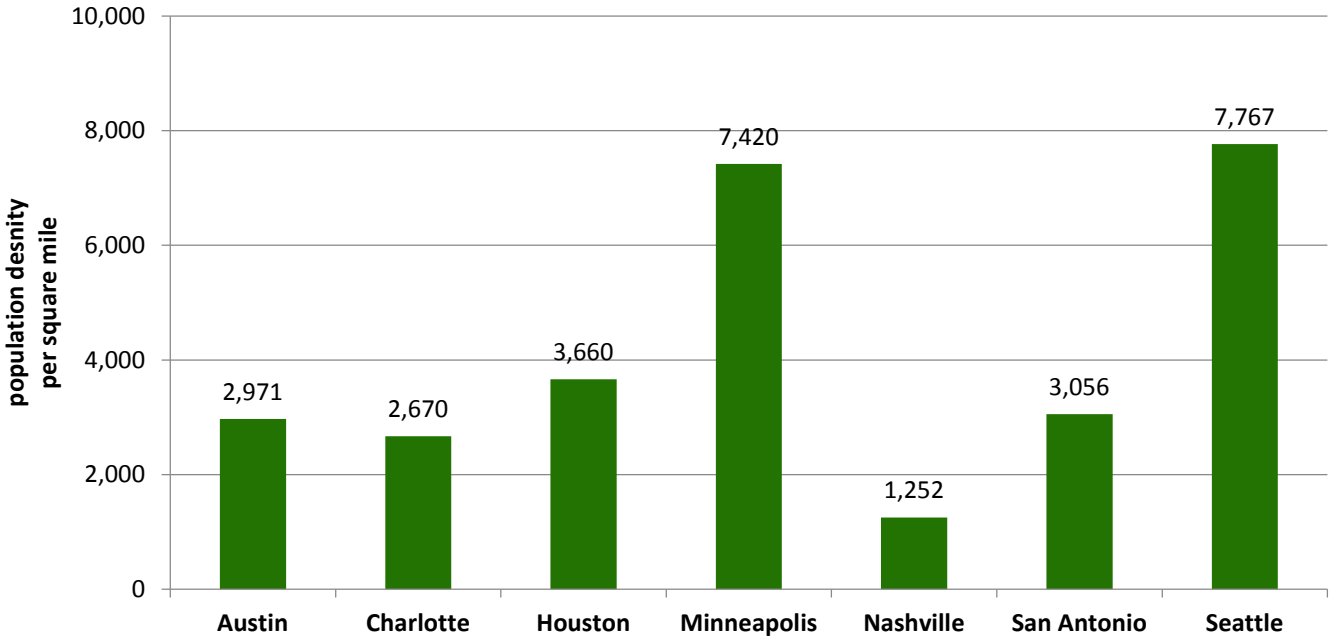
Figure 3-1: 2014 Walk Score vs 2013 Population Density



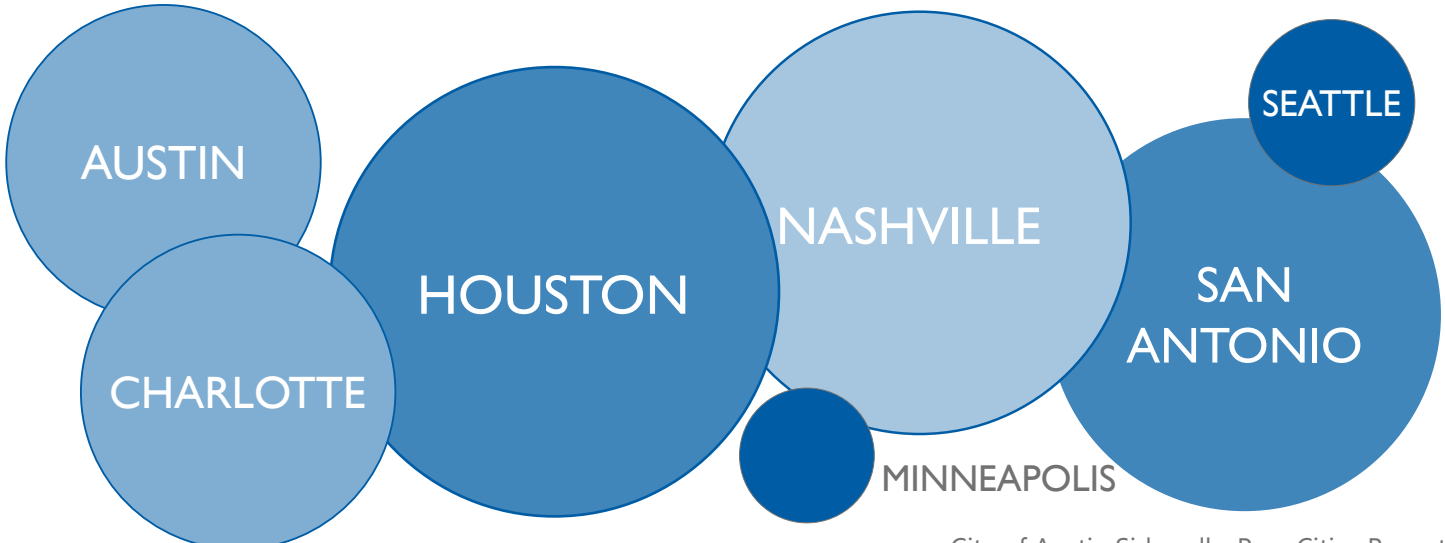
POPULATION DENSITY

Figure 3-2 shows the selected Peer Cities' population densities, and the circles below the Figure represent the relative land areas (by size) and density (by color darkness) of each Peer City. Minneapolis and Seattle have smaller land areas and significantly higher population densities than the other five Peer Cities. Nashville has the second largest land area (next to Houston) and has a significantly lower population density than the other six Peer Cities. As is discussed in Section 4, these geographic characteristics impact the sidewalk programs for each city.

Figure 3-2: Peer Cities Population Density



	Austin	Charlotte	Houston	Minneapolis	Nashville	San Antonio	Seattle
2013 population	885,400	792,862	2,195,914	400,700	658,602	1,409,019	652,405
land area (square miles)	298	297	600	54	526	461	84



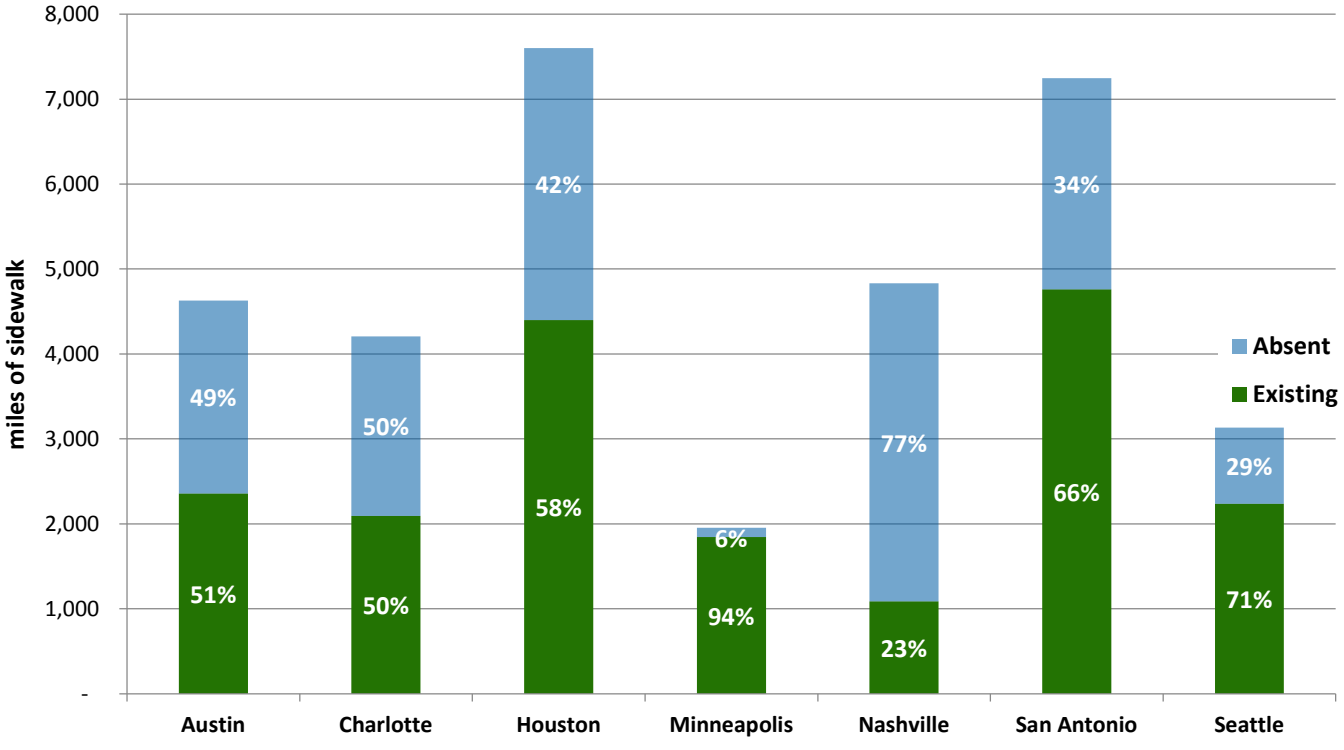
Section 4
SUMMARY OF FINDINGS

Below is a discussion of findings as well as background information about ADA compliance and liability history. A tabular summary of the findings is included at the end of this section in Table 4-4.

SIDEWALK INVENTORY

Figure 4-1 shows the inventoried existing and absent sidewalk network reported by each of the Peer Cities. Austin's sidewalk network is 51% complete, which ranks fifth among the Peer Cities in percent of sidewalk network complete, ahead of only Charlotte (50%) and Nashville (23%). Among Peer Cities, Houston and San Antonio have the two largest sidewalk networks, and Minneapolis and Seattle have the two smallest. Minneapolis has a nearly complete sidewalk network.

Figure 4-1: Sidewalk Network Inventory



	Austin	Charlotte	Houston	Minneapolis	Nashville	San Antonio	Seattle
Absent	2,270	2,114	3,200	108	3,744	2,484	900
Existing	2,359	2,094	4,400	1,845	1,087	4,769	2,235

SIDEWALK / PEDESTRIAN MASTER PLAN

The following table shows master plan documents that have been adopted by the Peer Cities.

Table 4-1: Sidewalk Master Plans

Peer Cities	Current Master Plan	Date Adopted	Update Frequency	Master Plan Purpose
Austin	Sidewalk Master Plan	2009	5 years	Assessment and prioritization of sidewalk infrastructure and ADA Title II Transition Plan update
Charlotte	Sidewalk Retrofit Policy	2011	5 years	Alignment of public involvement procedures and establishment of petition based process
Houston	none adopted	n/a	n/a	n/a
Minneapolis	Pedestrian Master Plan	2009	not provided	Condition assessment, policy assessment, improvements prioritization, design guide development, funding and implementation strategies
Nashville	Strategic Plan for Sidewalks & Bikeways	2008	5 years	Comprehensive - includes pedestrian and bicycle network planning, injury reduction, design guidelines for new streets, coordination with multi-modal and public transportation, prioritization methodology, cost estimating, public education and comment, and policy and funding recommendations
San Antonio	none adopted	n/a	n/a	n/a
Seattle	Pedestrian Master Plan	2009	6 years	Increase pedestrian safety, increase walkability equity, develop community and economic vibrancy, and promote health awareness

The five adopted master plans vary significantly in range and breadth. Compared to the other plans, Austin's Sidewalk Master Plan is the most focused on asset management and accessibility compliance (through the ADA Transition Plan). The master plans for Charlotte, Minneapolis, and Seattle are primarily focused on policy, but also include assessment and prioritization methodologies, funding recommendations, and design guidelines. Nashville's master plan has the most comprehensive scope, including policy and planning guidelines, detailed conditions assessment and prioritization methodology, and funding and implementation recommendations. The Alamo Area Metropolitan Planning Organization (MPO) developed a Pedestrian Safety Action Plan in 2012, but it was not adopted by the City of San Antonio.

The website links to Peer City Master Plan documents are below:

http://www.austintexas.gov/department/pedestrian
http://charmeck.org/city/charlotte/Transportation/Pages/Home.aspx
http://www.publicworks.houstontx.gov/notices/safe_sidewalk_program.html
http://www.minneapolismn.gov/publicworks/transplan/
http://mpw.nashville.gov/IMS/Sidewalks/default.aspx
http://www.seattle.gov/transportation/pedestrian_masterplan/default.htm

EXISTING SIDEWALK MAINTENANCE

Austin is one of three Peer Cities that accepts maintenance responsibility for existing sidewalks within the right-of-way, along with Charlotte and Nashville. Houston, Minneapolis, San Antonio, and Seattle require maintenance of existing sidewalks by the adjacent property owner, but only Minneapolis reports a successful history of enforcement. Seattle maintains segments of its existing network associated with safe sidewalk programs.

Table 4-2: Existing Sidewalk Maintenance

Peer Cities	Maintenance Responsibility	Conditions Assessment	Prioritization Methodology	Incentive Programs for Property Owner Maintenance of Sidewalks
Austin	Accepts responsibility for maintenance of existing sidewalks, but not for existing driveways. (Driveways are often replaced with existing sidewalk maintenance projects, accounting for up to 30% of construction costs.)	Currently none. Segment-based assessment under development	Currently citizen request; citywide prioritization tool under development	None reported.
Charlotte	Accepts responsibility for maintenance of existing sidewalks, but not for existing driveways. (Driveways are often replaced with existing sidewalk maintenance projects.)	None reported	Citizen request	All sidewalks in the public ROW are maintained on a request based process.
Houston	Does not accept responsibility for maintenance of existing sidewalks, and does not report a successful history of maintenance by property owners.	Staff inspection	None	Provides a no cost permit to property owners for sidewalk maintenance. Administers a "Privately Funded Sidewalk Program", in which city-hired contractors perform the work and the property owner pays 100% of the costs, including soft costs.
Minneapolis	Does not accept responsibility for maintenance of existing sidewalks. Reports a successful history of sidewalk maintenance by adjacent property owners.	Individual inspection for each panel of sidewalk on average 13-year cycle	Based on inspection	Property owner may elect to have maintenance charges assessed with property taxes with costs funded by City assessment bonds and recovered over 5 years (10 years for projects invoices over $2,500) at simple interest rate equivalent to bond sale rate. Property owners may elect to have the City perform the maintenance at competitively bid prices.
Nashville	Accepts responsibility for maintenance of existing sidewalks, but not for existing driveways.	Field assessment by sidewalk evaluator utilizing a smart level and data collector	Decision matrix using condition, Pedestrian Generator Index, and coordination with other projects (PGI)	None reported.
San Antonio	Does not accept responsibility for maintenance of existing sidewalks, and does not report a successful history of maintenance by property owners.	Currently none - segment-based assessment under development	Citizen request (for ADA compliance)	None reported.
Seattle	Does not accept responsibility for maintenance of existing sidewalks, and does not report a successful history of maintenance by property owners.	None	Citizen request	No incentive policy, but will occasionally partner with adjacent property owners to repair poor condition sidewalks.

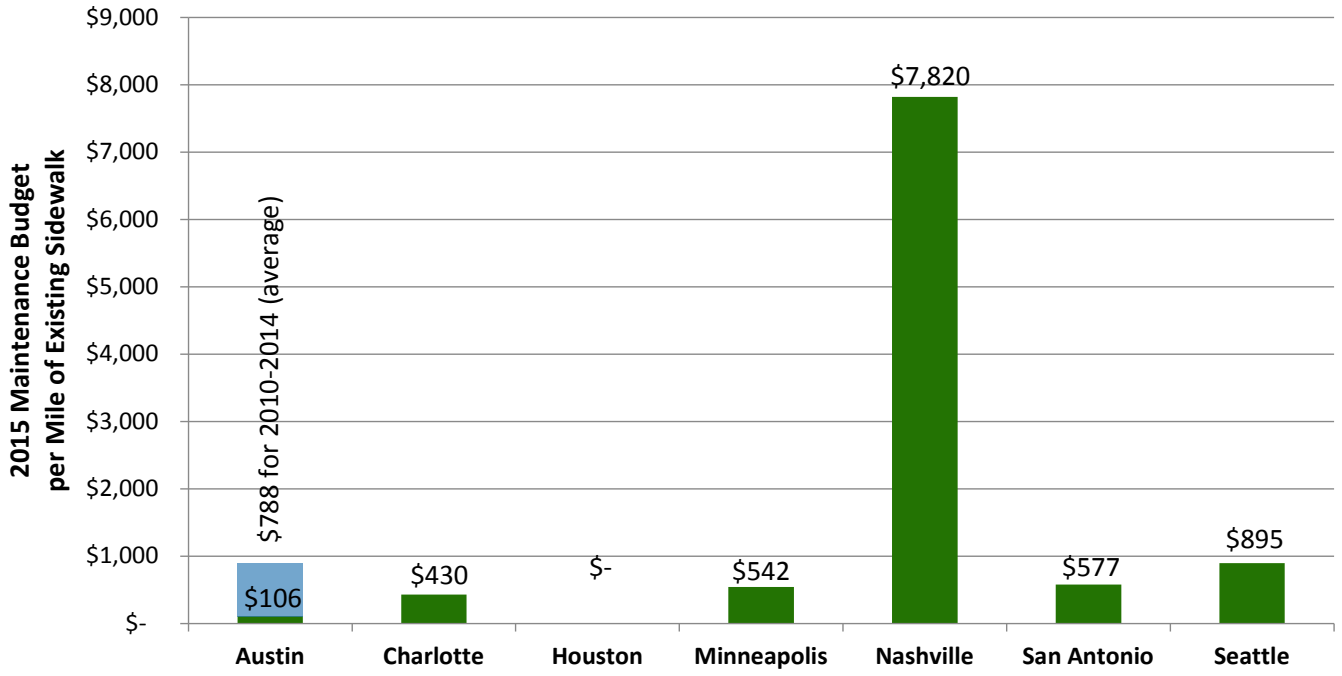
EXISTING SIDEWALK MAINTENANCE (CONT.)

None of the Peer Cities reports a policy of existing driveway maintenance. However, both Austin and Charlotte report that existing driveway replacement is often included in ADA Transition Plan projects.

Nashville developed a Pedestrian Generator Index (PGI) for their decision matrix calculator as a part of their 2008 Master Plan Update. The PGI prioritizes sidewalk segments based on the relative distance to each trip generator. Austin is developing a prioritization matrix that will account for pedestrian attractors, pedestrian safety, and sidewalk condition.

Figure 4-2 below shows the 2015 maintenance budget per mile of existing sidewalk reported by each of the Peer Cities. Austin's average maintenance budget for the period from 2010 to 2014 is included for reference.

Figure 4-2: 2015 Maintenance Budget per Mile of Existing Sidewalk

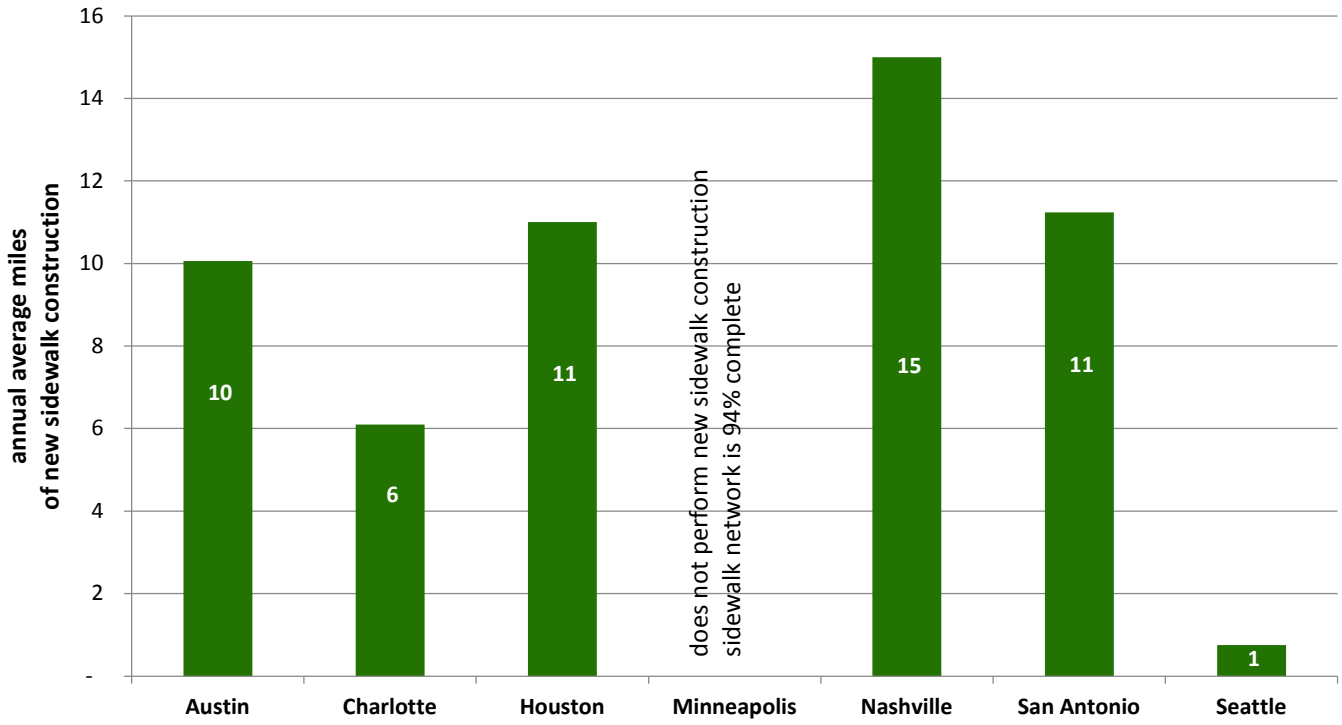


	Austin	Charlotte	Houston	Minneapolis	Nashville	San Antonio	Seattle
Miles of Existing Sidewalk	2,359	2,094	4,400	1,845	1,087	4,769	2,235
2015 Maintenance Budget	$250,000	$900,000	$0	$1,000,000	$8,500,000	$2,748,000	$2,000,000

ABSENT SIDEWALK CONSTRUCTION

All of the Peer Cities require new development to construct sidewalks in the adjacent right-of-way as a condition for obtaining a permit for construction. Except for Minneapolis, which has very few absent sidewalks, each of the Peer Cities constructs new (absent) sidewalks in areas where development occurred prior to the regulations requiring private construction of sidewalks. Many cities prioritize "gap" projects (missing sidewalk between existing sidewalks within a city block) specifically when located near key pedestrian attractors, such as schools or hospitals. Austin includes ADA Transition Plan improvements with new construction projects in order to complete an accessible route. Figure 4-3 below shows the reported average annual miles of new sidewalk constructed for each Peer City from 2010 to 2014.

Figure 4-3: Annual Average Miles of New Sidewalk Construction (2010-2014)



Austin and Nashville have each developed a GIS-based prioritization matrix as a part of their most recent master plan updates. The matrices are similar in that each includes a pedestrian attractor score that accounts for the relative distance from each pedestrian attractor to each sidewalk segment. San Antonio also uses a GIS-based prioritization method.

ABSENT SIDEWALK CONSTRUCTION (CONT.)

Austin has recently implemented a Neighborhood Partnering Program that provides matching grants for sidewalks (as well as other neighborhood improvement projects). The neighborhood cost share is typically around 60% but can be met through "sweat equity" in which the neighborhood provides labor effort.

Austin and Nashville provide new developments the option to pay an "in lieu" fee when installation of sidewalk is not feasible. The "in lieu" fee is used by the city to construct new sidewalk within a "Pedestrian Benefit Zone" or service area in which the development is being constructed.

SIDEWALK CONSTRUCTION COSTS

Direct comparison of construction cost data was difficult due to significantly differing methods of bid packaging and construction climates among the Peer Cities. For example, Nashville new sidewalk construction project costs often include all associated storm drainage improvements. Austin project costs include all associated traffic control and erosion controls. Based on the reported construction costs per square foot, Austin reports the third lowest costs, behind only Houston and Minneapolis.

Additional analysis beyond the scope of this report may be necessary in order to present quantitative construction cost data in a comparative format. Sample bid tabulations of representative sidewalk projects for Austin, Charlotte, Minneapolis, Nashville, San Antonio, and Seattle are included in Appendix E.

BUDGETS / FUNDING

The City of Austin 2009 Citywide Sidewalk Master Plan Update estimates a capital investment of $824 million would be required to build out the remaining absent sidewalk network, plus an additional $120 million to upgrade the existing sidewalk network to ADA compliance. At current budget levels, the sidewalk network would require approximately 110 years to build out.

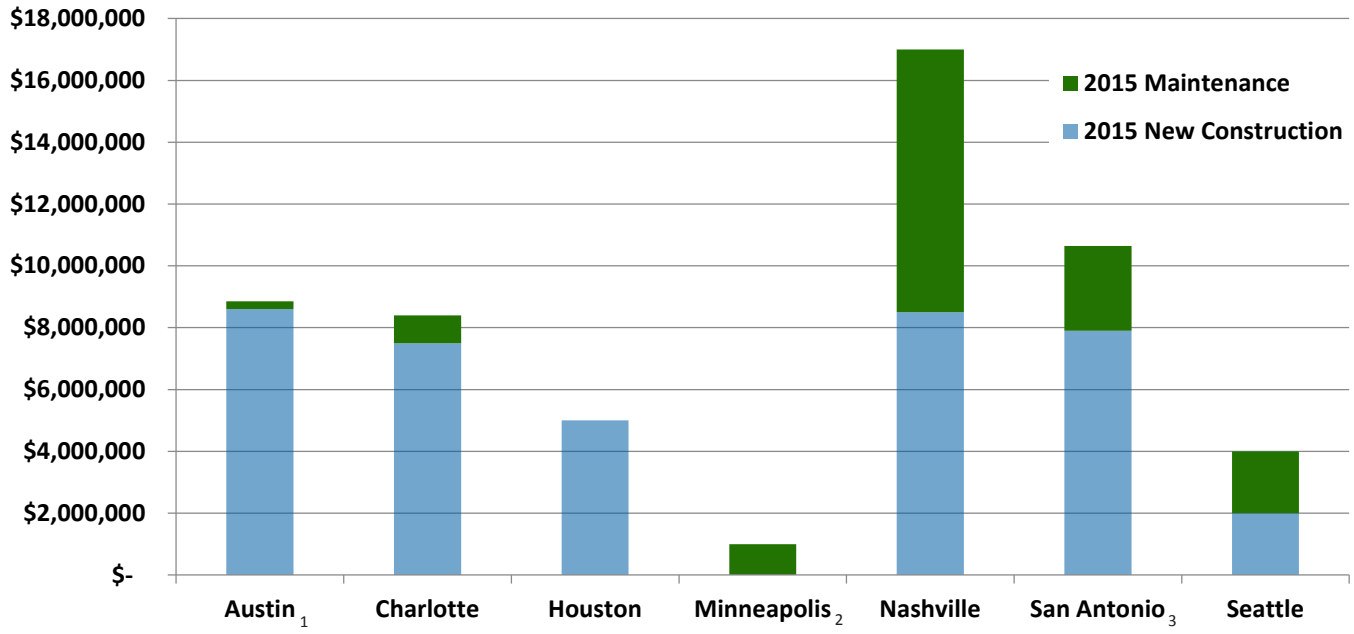
Except for Minneapolis and Seattle, each of the Peer Cities faces similar challenges to build out their sidewalk networks in accordance with their ADA Transition Plans. Minneapolis and Seattle are geographically smaller than the other Peer Cities and have nearly completed sidewalk networks.

Austin, Charlotte, and Nashville utilize bonds as the primary source of funding for sidewalks.

BUDGETS / FUNDING (CONT.)

Austin has funded new sidewalk construction and existing sidewalk maintenance at a combined average budget of approximately $8,460,000 per year from 2010 to 2014. This amount was greater than each of the other Peer Cities, except Nashville and San Antonio. Figure 4-4 below shows the 2015 sidewalk budgets for maintenance and new construction for each of the Peer Cities.

Figure 4-4: 2015 Sidewalk Budget (Maintenance and New Construction)



2015 Maintenance	$250,000	$900,000	$0	$1,000,000	$8,500,000	$2,748,000	$2,000,000
2015 New Construction	$8,600,000	$7,500,000	$5,000,000	$0	$8,500,000	$7,900,000	$2,000,000

1- Austin's maintenance funding to new construction funding ratio is lower than other cities, partially due to Austin's somewhat unique program of "ADA transition" projects. These are projects completed under Austin's new sidewalk program (using new construction funding) that combine installation of new sidewalks with rehabilitation of existing sidewalks to complete ADA compliant routes between destinations.

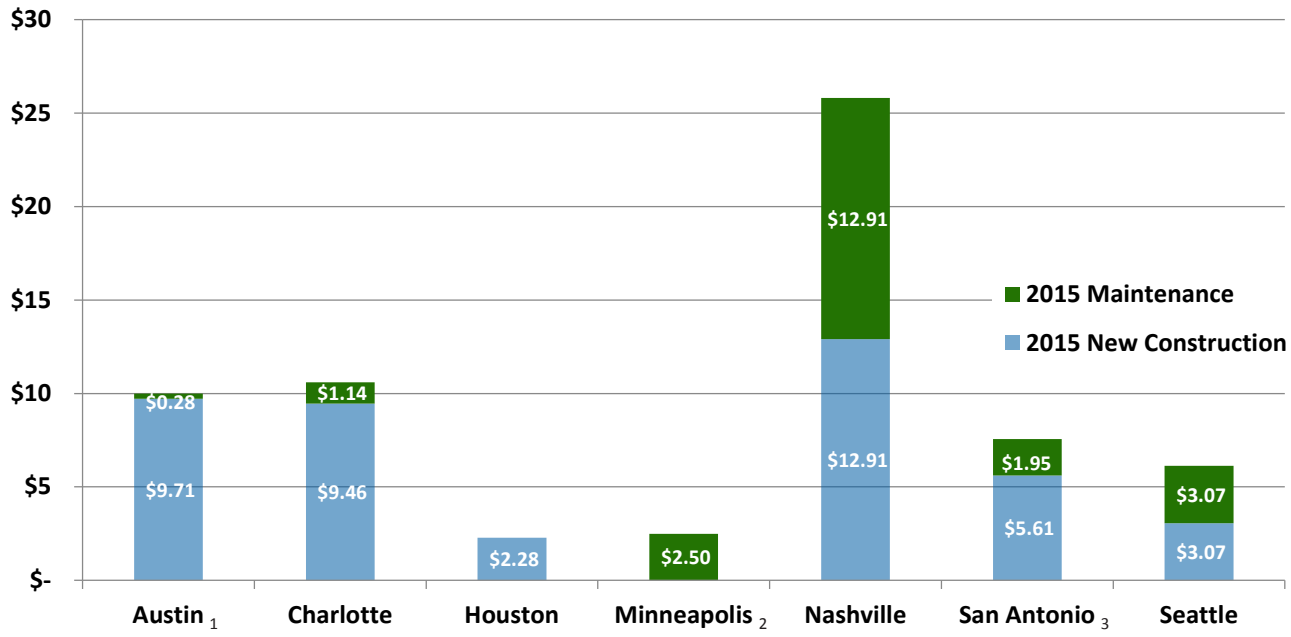
2- Minneapolis's maintenance budget is designated for ramp upgrades and is funded by city bonds. Additionally, the city appropriates $2,500,000 annually for assessment bonds, which fund sidewalk maintenance by property owners and are repaid by property tax assessments.

3- San Antonio's bond program includes $6.758M for sidewalk improvements, but the city does not currently track maintenance and new construction separately.

BUDGETS / FUNDING (CONT.)

Austin's combined average budget for new sidewalk construction and existing sidewalk maintenance from 2010 to 2014 was approximately $9.56 per capita. This amount was less than Peer Cities Charlotte and Nashville, but greater than Peer Cities Houston, Minneapolis, San Antonio, and Seattle. Figure 4-5 shows the 2015 combined budget per capita for each of the Peer Cities.

Figure 4-5: 2015 Sidewalk Budget per Capita (Maintenance and New Construction)



	Austin 1	Charlotte	Houston	Minneapolis 2	Nashville	San Antonio 3	Seattle
Population	885,400	792,000	2,195,914	400,700	658,602	1,409.019	652,405
2015 Maintenance	$250,000	$900,000	$0	$1,000,000	$8,500,000	$2,748,000	$2,000,000
2015 New Construction	$8,600,000	$7,500,000	$5,000,000	$0	$8,500,000	$7,900,000	$2,000,000

1- Austin's ratio of maintenance funding to new construction funding is lower than other cities, partially due to Austin's somewhat unique program of "ADA transition" projects. These are projects completed under Austin's new sidewalk program (using new construction funding) that combine installation of new sidewalks with rehabilitation of existing sidewalks to complete ADA compliant routes between destinations.

2- Minneapolis's maintenance budget is designated for ramp upgrades and is funded by city bonds. Additionally, the city appropriates $2,500,000 annually for assessment bonds, which fund sidewalk maintenance by property owners and are repaid by property tax assessments.

3- San Antonio's bond program includes $6.758M for sidewalk improvements, but the city does not currently track maintenance and new construction separately.

BUDGETS / FUNDING (CONT.)

Table 4-3 shows the reported funding sources for existing sidewalk maintenance and new sidewalk construction for each of the Peer Cities.

Table 4-3: Sidewalk Funding Sources

Peer Cities	Funding Source for Maintenance of Existing Sidewalks	Funding Source for Construction of New Sidewalks
Austin	Bonds 95%; Transportation User Fee 5%	Bonds 98%; Grants 2% ; ADA Transition Plan improvements to existing sidewalks are performed with new sidewalk construction funding
Charlotte	Allotment of gas tax revenue from North Carolina Department of Transportation (NCDOT), supplemented by city general funds	Bonds
Houston	None	Local property tax for city right-of-way (95%); State funding for TxDOT right-of-way (5%)
Minneapolis	City bonds for ramp upgrades and assessment bonds for sidewalk maintenance by property owners (recovered with property taxes)	None
Nashville	Bonds	Bonds and grants
San Antonio	Community Development Block Grants (CDBG) and bonds	Advanced Transportation District (ATD), a voter-approved ¼ cent sales tax increase, 25% of which is dedicated for sidewalk maintenance and construction
Seattle	"Bridging the Gap", a local property tax levy approved in 2006 for transportation maintenance	"Bridging the Gap", a local property tax levy approved in 2006 for transportation maintenance; Grants

ADA COMPLIANCE & LIABILITY

The Americans with Disabilities Act (ADA), signed in 1990, mandates that public entities establish and maintain a Transition Plan to achieve full accessibility. At minimum, the Transition Plan must include the following:

- A list of the physical barriers in a public entity's facilities
- A detailed outline of the methods to be utilized to remove the barriers
- A schedule for taking the necessary steps to achieve compliance with Title II
- The name of the official responsible for the plan's implementation

Each of the Peer Cities has adopted an ADA Transition Plan, although Charlotte's current plan only includes site facilities and not right-of-way.

ADA COMPLIANCE & LIABILITY (CONT.)

Courts have established legal precedents for accessibility compliance. For example, the 1993 Kinney v. Yeruselim United States Court of Appeals case concluded that street alterations require the installation of curb ramps and that the public entity must retrofit curb ramp installations on a pre-determined schedule. The 2004 Barden v. City of Sacramento United States Court of Appeals case concluded that sidewalks are considered a "program or service" and as such, public entities must make them accessible. As a result of this case, the City of Sacramento was mandated, over the next 30 years, to spend 20% of their annual Transportation Fund towards right-of-way accessibility.

In July 2013, the Department of Justice (DOJ) and Department of Transportation (DOT) issued technical assistance, defining street resurfacing as an alteration requiring the installation of curb ramps.

Several Peer Cities reported minor lawsuits associated with ADA compliance. However, Nashville lost a class action lawsuit from 1998 regarding new construction and alterations in the right-of-way. Since 2000, Nashville has voluntarily operated under an agreement with the Department of Justice (DOJ) to provide self-reporting and submits annual audit reports to the DOJ to demonstrate compliance. To satisfy compliance, Nashville adopted the "20% Paving Rule for Work Completed in the Public Right of Way", in which 20% of the paving costs for construction, maintenance, and repair projects within the right-of-way are allocated to sidewalk repairs and maintenance, in addition to the costs of replacement of pedestrian access routes impacted by the project.

PEDESTRIAN SAFETY INITIATIVES

All of the Peer Cities report pedestrian safety as a priority for their sidewalk program. Below are examples of the programs that the Peer Cities reported or that are described in their sidewalk master plan documents:

- All of the Peer Cities except for Charlotte have established a Pedestrian Advisory Council (PAC) or a Bicyclist and Pedestrian Advisory Council (BPAC). These councils advocate for pedestrian safety to their city governments.
- Several Peer Cities have implemented curb extension policies to reduce crosswalk distance length at intersections and prioritize new and gap sidewalk construction near schools.
- The Washington state legislature reduced speed limits to 20 miles per hour for shared use roads, to allow pedestrian, bicycle, and vehicle traffic to share the same road in certain locations.
- In 1997, Sweden's parliament approved a road traffic safety project called Vision Zero, which aimed to achieve a transportation system with no fatalities or serious injuries. Austin and Seattle have each adopted Vision Zero initiatives.
- Seattle measures sidewalk performance based on twelve conditions with defined baselines and desired trends including pedestrian safety measures such as rate of crashes involving pedestrians; vehicle speeds along identified corridors; and school participation in pedestrian safety, education, and encouragement programs.
- San Antonio has begun to allocate $1,000,000 annually to address pedestrian safety in school zones. This funding will be used to analyze crash history and to upgrade infrastructure such as crosswalks, signs, and flashing beacons.

Table 4-4 summarizes the findings presented in Section 4 for cross reference purposes.

Table 4-4: Summary of Findings

Peer Cities	Austin	Charlotte	Houston	Minneapolis	Nashville	San Antonio	Seattle
Sidewalk Inventory	•2,539 miles of existing sidewalk (51%) •2,270 miles of absent sidewalk (49%) • GIS database digitized from aerials and updated manually	• 2,094 miles of existing sidewalk (50%) • 2,114 miles of absent sidewalk (50%) • GIS database digitized from aerials and updated manually	• 4,400 miles of existing sidewalk (58%) • 3,200 miles of absent sidewalk (42%) • No GIS database; inventoried through asset management procedures	• 1,845 miles of existing sidewalk (94%) • 108 miles of absent sidewalk (6%) • No GIS database; inventoried through inspections	• 1,087 miles of existing sidewalk (23%) • 3,744 miles of absent sidewalk (77%) • GIS database digitized from aerials and updated manually	• 4,769 miles of existing sidewalk (66%) • 2,484 miles of absent sidewalk (34%) • GIS database digitized from aerials and updated manually	• 2,235 miles of existing sidewalk (71%) • 900 miles of absent sidewalk (29%) • GIS database digitized from aerials and updated manually
Sidewalk / Pedestrian Master Plan	• 2009 Sidewalk Master Plan • Updated every 5 years • Focused on assessment and prioritization of sidewalk infrastructure and ADA Title II Transition Plan update	• 2011 Sidewalk Retrofit Policy • Updated every 5 years • Focused on alignment of public involvement procedures and establishment of petition based process	• none adopted	• 2009 Pedestrian Master Plan • Focused on condition assessment, policy assessment, improvements prioritization, design guide development, funding and implementation strategies	• 2008 Strategic Plan for Sidewalks & Bikeways • Updated every 5 years • Comprehensive - includes pedestrian and bicycle network planning, injury reduction, design guidelines for new streets, prioritization methodology, cost estimating, public communication, and policy and funding recommendations	• none adopted	• 2009 Pedestrian Master Plan • Updated every 6 years • Focused on increasing pedestrian safety, increasing walkability equity, developing community and economic vibrancy, and promoting health awareness
Existing Sidewalk Maintenance	• Accepts maintenance responsibility • Does not accept responsibility for existing driveways, but often replaces driveways with existing sidewalk maintenance projects (up to 30% of construction costs) • $250k budget for existing sidewalk maintenance for 2015 ($1.86 million average budget for past five years) • No current conditions assessment tool • Segment-based conditions assessment tool under development • Prioritization is currently citizen request • Citywide prioritization tool under development • No policy incentives for maintenance by adjacent property owner	• Accepts maintenance responsibility • Does not accept responsibility for existing driveways, but often replaces driveways with existing sidewalk maintenance projects • $900k budget for existing sidewalk maintenance for 2015 ($900k average budget for past five years) • No current conditions assessment tool • Prioritization is by citizen request	• Does not accept maintenance responsibility • Condition assessment is based on inspection • Provides a no cost permit to property owners for maintenance • Provides the Privately Funded Sidewalk Program, in which maintenance is performed by city-hired crews and is paid by the adjacent property owner • Does not report a successful history of sidewalk maintenance by adjacent property owners	• Does not accept maintenance responsibility; maintains sidewalks on a limited basis • Condition assessment is by individual inspection for each panel of sidewalk on average 13-year cycle • Prioritization is based on inspection • Property owner may elect to have maintenance charges assessed with property taxes with costs funded by City assessment bonds and recovered over 5 years (10 years for projects invoices over $2,500) at simple interest rate equivalent to bond sale rate. Property owners may elect to have the City perform the maintenance at competitively bid prices, affording economy of scale. • Reports a successful program of maintenance by adjacent property owner	• Accepts maintenance responsibility • $8.5 million budget for existing sidewalk maintenance for 2015 ($5.7 million average budget for past five years) • Condition assessment is by sidewalk evaluator utilizing a smart level and data collector • Prioritization is by decision matrix using Pedestrian Generator Index (PGI) • No policy incentives for maintenance by adjacent property owner	• Does not accept maintenance responsibility, but does maintain some sidewalks on a limited basis • $2.75 million budget for existing sidewalk maintenance for 2015, including one-time funding of $500k from ATD • Segment-based conditions assessment tool under development • Prioritization is by citizen request, for ADA compliance • No policy incentives for maintenance by adjacent property owner • Does not report a successful history of sidewalk maintenance by adjacent property owners	• Does not accept maintenance responsibility, except for sidewalks near key pedestrian attractors, such as schools and hospitals • $2.0 million average budget for existing sidewalk maintenance budget for past five years • $2.0 million budget for existing sidewalk maintenance for 2015 • No reported conditions assessment • Prioritization is by citizen request • No incentive policy, but will occasionally partner with property owners to repair poor condition sidewalks • Does not report a successful history of sidewalk maintenance by adjacent property owners

Table 4-4: Summary of Findings (cont.)

Peer Cities	Austin	Charlotte	Houston	Minneapolis	Nashville	San Antonio	Seattle
Absent Sidewalk Construction	• Average of 10.1 miles of new sidewalk constructed per year • $8.6 million budgeted for new sidewalk construction in 2015 • Sidewalks constructed by property owner for new development • City constructs new sidewalks in areas with existing development • GIS prioritization tool using pedestrian attractor criteria developed by stakeholders	• Average of 6.1 miles of new sidewalk constructed per year • $7.5 million budgeted for new sidewalk construction in 2015 • Sidewalks constructed by property owner for new development • City constructs new sidewalks in areas with existing development • Neighborhood Petition Assessment program allows self-assessment; requires 51% of property owners to consent and 100% of property owners to pay (no applications to date)	• Average of 11 miles of new sidewalk constructed per year • $5.0 million budgeted for new sidewalk construction in 2015 • Sidewalks constructed by property owner for new development	• Sidewalks constructed by property owner for new development • Does not construct new sidewalks • Sidewalk network is 94% complete	• Average of 15 miles of new sidewalk constructed per year • $8.5 million budgeted for new sidewalk construction in 2015 • Sidewalks constructed by property owner for new development, or in lieu of fee assessed by City • City constructs new sidewalks in areas with existing development • Decision matrix using Pedestrian Generator Index (PGI)	• Average of 11.2 miles of new sidewalk constructed per year • $7.9 million budgeted for new sidewalk construction in 2015 • Sidewalks constructed by property owner for new development • City constructs new sidewalks in areas with existing development • Weighted matrix with prioritization for gaps near schools and hospitals	• Average of 0.75 miles of new sidewalk constructed per year • $2.0 million budgeted for new sidewalk construction in 2015 • Sidewalks constructed by property owner for new development • City constructs new sidewalks in areas with existing development • Performance measurements prioritization
Budgets / Funding	• Existing sidewalk maintenance funded by city bonds (95%) and city Transportation User Fee (5%) • New sidewalk construction funded by city bonds (98%) and grants (2%) • Managed by Public Works	• Existing sidewalk maintenance funded by allotment of gas tax revenue from North Carolina Department of Transportation (NCDOT), supplemented by city general funds • New sidewalk construction funded by city bonds • Managed by Transportation	• No funding for existing sidewalk maintenance • New sidewalk construction funded by local property tax (95%) for city right-of-way and state funding (5%) for state right-of-way • Managed interdepartmentally	• Existing sidewalk maintenance funded by city bonds • No funding for new sidewalk construction	• Existing sidewalk maintenance funded primarily by city bonds • New sidewalk construction funded by city bonds and state or federal grants • Managed by Public Works	• New sidewalk construction funded by Advanced Transportation District (ATD), a voter-approved ¼ cent sales tax increase, 25% of which is dedicated for sidewalk maintenance and construction • Existing sidewalk maintenance funded by Infrastrastructure Management Program (IMP) and Community Development Block Grants (CDBG)	• Existing sidewalk maintenance funded by Bridging the Gap, a local property tax levy assigned to transportation projects • New sidewalk construction funded by grants and by Bridging the Gap, a local property tax levy assigned to transportation projects • Managed by Transportation
ADA Compliance and Liability	• ADA Transition Plan • $100k annual Austin Energy sidewalk compliance program • CapMetro Sidewalk / Bus Stop Program coordination	• ADA Transition Plan for site facility only, not for right-of-way	• ADA Transition Plan	• ADA Transition Plan	• ADA Transition Plan • 1998 class action lawsuit regarding new construction and alterations in the right-of-way • Annual audits to DOJ since voluntarily self-reporting in 2000 • 20% Rule, requiring 20% of project paving costs to be allocated to pedestrian improvements	• ADA Transition Plan	• ADA Transition Plan
Pedestrian Safety Initiatives	• Vision Zero • Pedestrian Advisory Council • Pedestrian safety index included in GIS prioritization tool		• Sidewalk Safety Program (SSP), in which the city prioritizes new sidewalk construction and performs maintenance on existing sidewalks in the vicinity of specific pedestrian attractors, such as schools and hospitals	• Pedestrian Advisory Council (council appointed)	• Pedestrian Advisory Council	• Pedestrian Advisory Council • Pedestrian Safety Action Plan (Metropolitan Planning Organization • Funding allocated for analysis and upgrades of pedestrian safety in school zone	• Vision Zero • Washington state legislature reduced speed limits to 20 miles per hour for shared use roads • Pedestrian Advisory Council

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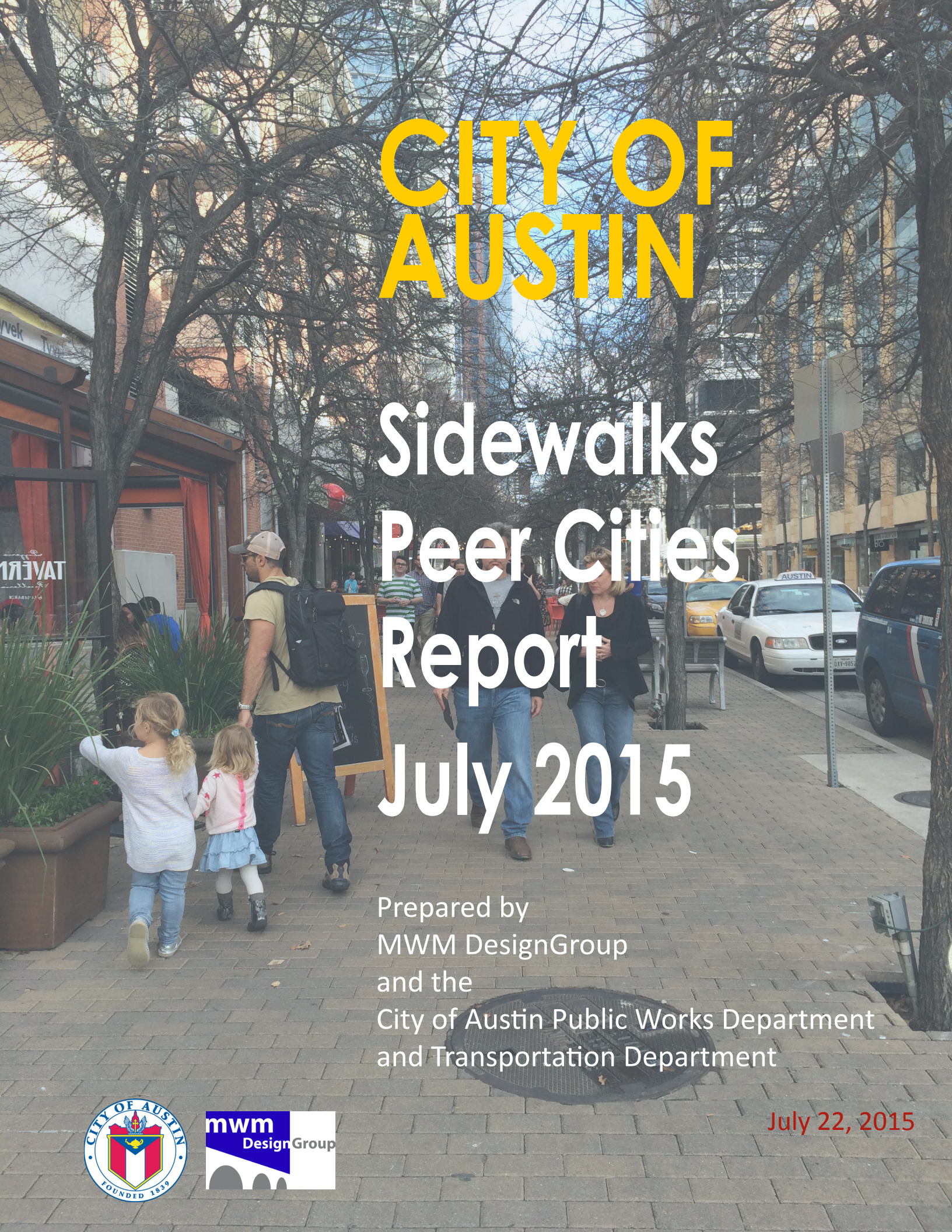

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