Appendix D

Planning Guide:
Safe Routes to Transit
for Older Adults & People with Disabilities

Contents

PROJECT OVERVIEW

The need

Approaching transit trips as a door-to-door experience highlights the importance of walking as a key connection to public transportation. Most people are pedestrians (on foot or using a wheelchair or other assistive device) at one end or the other of a transit trip. Creating safe, accessible walking routes to transit stops is an important element of maintaining mobility and independence, especially for older adults and people with disabilities who do not drive. Physical, cognitive, and psychological conditions of these populations and physical and environmental factors in the built environment can limit their ability to get to bus stops.

The benefits of improving walkability for older adults and people with disabilities are numerous:

- Walking paths between origins/destinations and the bus stop are essential links for existing transit users. Currently 10% of SamTrans users are older adults and 4% report having a disability.
- Better walking conditions support increased physical activity, which carries multiple health benefits.
- People are already walking under unsafe and/or difficult situations. Older adult pedestrians are more likely than other age groups to be seriously injured or killed in collisions. Improving the safety of pedestrians can reduce the number collisions.
- Walkability improvements for older adults and people with disabilities benefit all users of the pedestrian network.
- Walkable communities encourage economic investment.
- Improving the accessibility of transit stops sends a positive message to potential new users of the system.
- Walking and transit, as alternative modes of travel, help to alleviate congestion and reduce motor vehicle pollutants.

Project Purpose

The purpose of this project is to develop a simple, reliable, and replicable methodology for identifying and prioritizing improvements to pathways that enable older adults and people with disabilities to better access transit stops. The proposed methodology outlined in this guide builds on a recommendation from the 2006 Senior Mobility Action Plan that suggested working with a case study city to identify and prioritize walking improvements for older adults. The City of Pacifica generously volunteered to serve as the case study city for this project on the basis that a well thought out community-led effort that includes a high level of coordination with city staff, as is being proposed in this guide, helps city staff to identify, prioritize, and fund improvements.

The proposed methodology was developed in close coordination with the City of Pacifica through conversations with City staff, SamTrans operations staff, additional stakeholders, and best practices research. Examples from the City of Pacifica, and the Linda Mar neighborhood in particular, are used throughout the guide description for illustrative purposes. This document does not include a needs analysis nor does it recommend specific improvements for the City of Pacifica.

The elements of safe and accessible paths are spread among many different responsible parties and include many considerations such as, traffic safety, circulation, accessibility, and access to transit. Successful planning and implementation of improvements to path of travel to transit stops requires the involvement of various agencies, stakeholders, and jurisdictions. This is a core tenet of the proposed methodology.

The proposed process outlined in this guide would cost relatively little to conduct, mainly consisting of staff time. Level of effort is largely dependent on the methods used to gather information.

In this document, the term "walkability" refers to the myriad of factors that affect the pedestrian experience, including physical and environmental factors. The term "path of travel" is used to describe the physical pedestrian route. A "barrier" is an overarching term to describe any physical or environmental characteristic that inhibits the walkability of a path of travel.

This guide is broken down into three recommended phases with a Resources section at the end:

- Phase I - Identify need, project partners, and potential funding sources
- Phase II - Identify barriers, potential improvements, and prioritization criteria
- Phase III – Next steps

Common barriers to path of travel

Many different aspects can affect the safety and walkability of the path of travel to bus stops. Some barriers are especially pronounced for older adults and people with disabilities, many of whom often have:

- difficulty negotiating steep grades
- difficulty negotiating steep cross-slopes
- decreased stability
- slower walking speed
- reduced endurance
- inability to react quickly to dangerous situations

Common barriers to walkability for older adults and people with disabilities include, but are not limited to:

- lack of or narrow sidewalks or pedestrian pathways
- lack of or substandard curb ramps
- cracked or uneven sidewalks and crosswalks
- not enough time to cross the street at intersections
- widely spaced or inconveniently located crosswalks
- lack of visibility at midblock crossings
- physical obstructions in the path of travel, such as light posts or overgrown vegetation
- high speed traffic and wide intersections/crossings
- failure of drivers to yield the right-of-way to pedestrians in crosswalks
- confusing intersections or signal phasing (especially when pedestrian push button use is required)
- concerns for personal security when walking in some areas
- no or low pedestrian-oriented lighting

- obstructions to visibility to oncoming traffic at crossings
- steeply graded sidewalks and crossings

Additionally, considerations for people that use wheelchairs or scooters include:

- the need for a wider path of travel than ambulatory pedestrians
- unobstructed, firm, stable, slip resistant pathways
- stability and control can be affected by surfaces with excessive cross-slopes, grades (running slope) or rough terrain

There are several toolkits available that address common barriers to path of travel listed in the Resources section at the end of this document.

PROPOSED METHODOLOGY

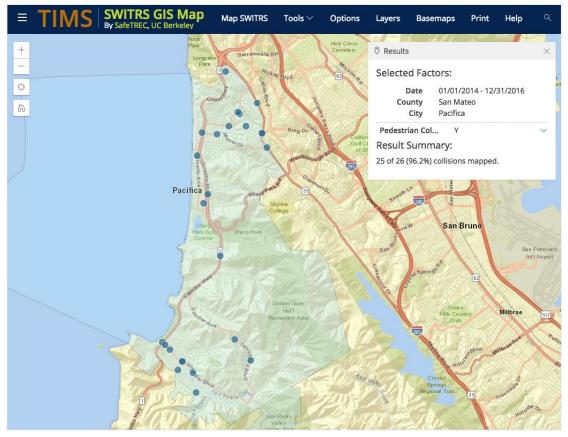## Phase I – Identify need, project partners, & potential funding sources

The first phase of the project consists of identifying a project area where there is a need, involving essential project partners early on, and identifying potential funding sources. Any one of these aspects may be the impetus for the project and so the order in which they are achieved is not important. For example, in many cases, the funding source will drive the parameters of the overall effort, including the types of eligible improvements to be proposed and the timeline.
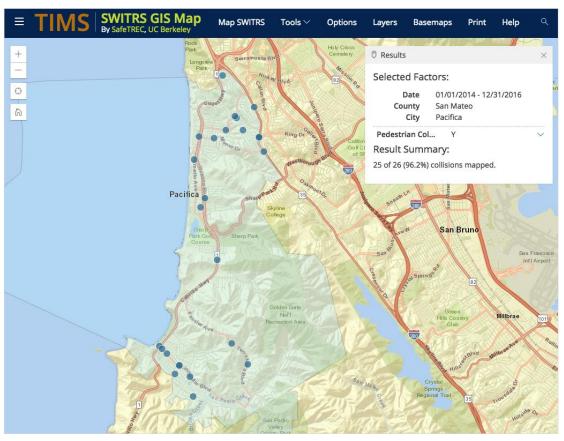
Identify the need and project area

The first step is to identify a few potential geographic areas to begin with. In many cases a geographic area or jurisdiction will already be identified. In the case that a project area has not yet been decided upon or a larger area needs to be further refined, the following criteria and associated actions are suggested:

- **Establish your target populations.** This guide is aimed at addressing walkability barriers specific to older adults and people with disabilities. The target populations may be narrowed or expanded based on the context of the project. For example, transit-dependent veterans with disabilities could be a target population. The term "target populations" is used here to describe the specific populations the project aims to benefit.

- **Find important locations for your target populations.** Statistics on where older adults, people with disabilities, and veterans live are available through a variety of sources, including the US Census. Additionally, the County maintains an interactive map of senior living, assisted care, and veterans' facilities and activity centers. If a jurisdiction has already been identified, that jurisdiction's staff would be a good source for this information. For Pacifica, this step resulted in a focus on the Linda Mar neighborhood because it contains an abundance of senior living facilities, the senior services center, and other important shopping and medical destinations.

- **Look at collision statistics.** In some cases, and for some funding sources, the presence of pedestrian safety issues may be an important factor in selecting a project area. Information about collisions resulting in injury are easily obtainable through the UC Berkeley Transportation Injury Mapping System (TIMS) which pulls data from the Statewide Integrated Traffic Record System (SWITRS). The screenshot in

shows a map of all collisions involving a pedestrian in Pacifica from 2014 to 2016. This information can help to identify hotspots of pedestrian safety issues.

Figure 1: TIMS Results - Pedestrian Collisions

- **Identify opportunities and constraints**. For example, there may be an area where multiple development projects are being planned and therefore would be an ideal area to identify needed walkability improvements. Conversely, a sparsely populated rural area with no sidewalks and narrow streets may not be the most realistic area for a focused effort such as this.

- **Assess proximity to transit.** Information about transit routes and stops can be found online and through transit agency staff. Many

Figure 2: SamTrans Routes serving the Linda Mar neighborhood

SamTrans routes serve the Linda Mar neighborhood and connect the area with other communities (Figure 2). Transit agency staff can assist with identifying areas with opportunities to improve the path of travel to important transit stops. They can also assist with identifying the most popular stops.

Connect with essential project partners

As previously stated, safe accessible pathways to transit stops are the responsibility of multiple entities. It is of paramount importance that anyone wishing to spearhead an effort such as this should identify and reach out to the essential project partners as early in the process as possible. The specific essential project partners will vary depending on the project area, but the most likely include the ones described below. Additional recommended project partners are discussed under Phase II.

City staff - Working with city staff to shape the parameters of the project is essential to ensuring the usefulness of the results and the ultimate success of the project. In most cases this will be staff at the city where the project area is located or county staff, if the project area is in an unincorporated area. Cities and counties usually have jurisdiction for making improvements on local streets. State highways, such as Highway 1 in Pacifica, are under the jurisdiction of Caltrans.

City staff will be able to help identify which types of information should be collected to best support the city in making improvements. There are economies of scale to making several like improvements at once, and so it benefits the city to engage in an effort such as this to identify and prioritize a set or sets of needed improvements. For example, one flashing beacon may cost $10,000 to purchase and install, but the per unit cost goes down when multiple flashing beacons are installed at once. Contractors are also more likely to bid on larger projects with multiple similar elements rather than smaller piecemeal projects.

The appropriate departments and staff will vary by jurisdiction. In the case of Pacifica, the engineering department in Public Works is primarily responsible for walkability improvements and has been closely involved in developing this guide. For other jurisdictions the more appropriate staff partner may be in the

planning department. Other city departments such as senior services, the city manager's office, and city council members can be helpful in identifying the best staff to connect with.

Transit agency staff - Another key partner is the transit agency or agencies. This guide is primarily concerned with identifying improvements to the path of travel to bus stops, which is outside of most transit agencies' jurisdiction. However, improvements in the path of travel to transit stops will benefit transit users, and therefore the transit system overall. Coordinating with transit agency staff can help to identify opportunities for effective collaboration. For example, transit agencies may have a bus stop improvement plan or process in place. Planned bus stop improvements could aid in identification of the project area and provide leverage for path of travel improvements. Transit agency staff can also help to identify stops that are of particular importance for the project's target populations. Staff in the bus operations department are generally responsible for keeping track of bus stops, but improvements to bus stops involves multiple departments.

Other essential partners – There are additional entities that can have an important role. Physical barriers often belong to utility companies, including PG&E, AT&T and the CATV franchisee, water and wastewater enterprise districts, and even garbage collection franchisees. Jointly-owned utility poles are a common obstruction in older sidewalks, as are underground facilities with broken or displaced covers. Adding street lighting near dark transit stops necessarily involves PG&E. While the city (or the County) has the ultimate responsibility, as the permitting agency, these other entities must be involved in the process and can impede progress if they are not brought to the table early.

Health Policy & Planning – The County's Health Policy & Planning department can be a valuable partner and could provide technical assistance. They maintain data related to demographics, access to transit, and collisions.

Project lead – The proposed methodology in this guide assumes that there is an entity spearheading the effort. The lead entity could be the city, transit agency, or a third party. In any case, it is the responsibility of the project lead to ensure that a high level of coordination is established and maintained.

Identify potential funding sources

Funding sources can and should influence the types of information that are to be collected in Phase II. Therefore, it's important to identify potential funding sources early on in the process. This enables the collection of information that is directly applicable to funding for implementation. For example, a funding source may stipulate that proposed improvement projects are within a half-mile of a transit stop.

A data collection effort that is too large and unfocused runs the risk of producing less useful results. That said, having an existing list of desired improvements or projects articulated in a plan prepares agencies to quickly move to pursue funding opportunities when they arise. Identification of potential funding sources can still help to guide the information collection, even if the funding is not on the immediate horizon.

Potential funding sources for improvements are discussed further under Phase III.

Identify goals, objectives, and roles of all entities involved

Hold a kickoff meeting – Essential partners should be brought together by the project lead for a project kickoff meeting as soon in the process as possible. The main purpose of a kickoff meeting is to clarify the goals, objectives, and roles for the various entities involved, and to agree on the scope and methods of the project. This process can help the partners involved to refine and articulate what the project goals should be. A discussion of roles should cover points of contact and how the resulting information will be used and shared by each project partner. A preliminary discussion of prioritization criteria for potential improvements can also be included, however the criteria should also be informed by the outreach conducted in Phase II.

Relevant existing policies, plans, and processes should be discussed, especially for the city and transit agency. For example, the California Complete Streets Act requires jurisdictions to plan for the accommodation of all modes and all users into routine maintenance and roadway design efforts. The City of Pacifica adopted a Complete Streets Policy in 2012 that includes the following Guiding Policy:

> ***"Mobility for All Users.** Provide a safe and attractive walking environment accessible for all users, particularly persons using wheelchairs, seniors, and children."*

Additionally, the Circulation Element of the City of Pacific General Plan names several more relevant guiding policies regarding pedestrian circulation.

Last, the kickoff meeting is an ideal opportunity to discuss additional organizations and community groups that should be involved in the process. This is described more in the following section.

Phase II – Identify barriers, potential improvements, & prioritization criteria

The second phase of this process involves collecting information on barriers to path of travel and identifying and prioritizing potential improvements.

Gather information

There are various methods for gathering information about barriers and potential improvements. Four overarching methods are described below. The specific information gathering methods should be determined by the project partners.

Involve additional stakeholders and target populations

A key part of this effort is to engage stakeholders that can assist in any or all of the following steps in the process. City staff can often help identify and make connections with other various stakeholders. For example, staff in the Pacifica Senior Services departments are a valuable resource for connecting with older adults directly and organizations that serve them.

Additional stakeholders can include:

- Other city departments, such as parks and recreation
- Pedestrian & Bicycle Advisory Committees – In Pacifica, this committee also serves as the Park, Beach, and Recreation Commission. One commissioner is designated as the liaison with senior services.
- Neighborhood associations
- Community groups
- Senior organizations
- Transit advocacy groups
- Disability advocacy organizations
- Senior living communities and assisted living

Conversations with stakeholders should be done early in the process since this will likely produce results that will inform or assist with other information gathering efforts. For example, speaking with Pacifica Senior Services staff revealed that they are able to facilitate conversations with older adults at the community

center, reach out to homebound seniors through their meals on wheels program, and engage staff at the local senior living facilities. These conversations can also inform the types of information to be collected.

When reaching out to stakeholders, the following overarching topics should be discussed:

- The project purpose and goals
- What are the barriers accessing bus stops? Specific and in general.
- What are important improvements to address these barriers?
- How should improvements be prioritized?
- Can you recommend anyone else I should talk to?

When explaining the project purpose and goals, it is important to be clear about how the project results will be used and to avoid creating unrealistic expectations.

As previously mentioned, senior centers can be very helpful in distributing information about the effort and the opportunity to participate to older adults. In Pacifica, senior services distributes information through a variety of mediums, including:

- Senior center newsletter
- City website
- Monthly news article in local paper
- Marquee in front of the community center
- Social media
- Booths at public events

Hold discussions where the target populations gather

An effective way to gather information from older adults and people with disabilities is to hold discussions where they already gather. In Pacifica, the congregate lunch program at the community center provides a great opportunity to gather feedback from several older adults at once. The local senior living facilities are also good places to hold conversations and many have community rooms.

Conversations with groups of the target populations can be informal and loosely structured. The goal is to get a sense of both the specific barriers (e.g., "The southwest corner of Oak and Pine needs a curb cut") and the overarching issues (e.g., "I feel unsafe walking in the evening").

Conduct a survey

Surveys and walking assessments (described in the following section) can provide valuable information in conjunction or on their own. Both provide an opportunity to gather more structured feedback. Surveys can be conducted at locations of interest, e.g., at a bus stop, or distributed where the target populations gather.

Surveys can also aid in gathering information from a larger number of people. Surveys should be kept short and survey questions should be clear and simple. Questions should be based on the parameters previously determined in coordination with the essential partners. In Pacifica, a short printed survey could be distributed to homebound seniors, a population that would otherwise be difficult to reach, through their meals on wheels program.

Electronic surveys are free and simple to create. They are easily distributed through a variety of channels and can collect information from a large number of people. Many older adults and people with disabilities use the internet. Recent census data shows that 80% of older adults in San Mateo County have a computer with internet in their home.

Providing printed surveys is important for gathering information from people who do not use the internet. However, it should be noted that there are costs associated with printing surveys and recording the data. A possible solution is to offer one-on-one assistance with filling out online surveys at a place where the target populations gather.

Conduct a walking assessment

Walking with the target population members in the project area and around bus stops can reveal barriers and potential improvements that might otherwise have been overlooked. Walking assessments can range from a short informal walk around the block with a small group to a more formal and comprehensive walk audit. Recording information while on the street can be difficult, especially for

people using mobility devices. However, there should be a follow up discussion or survey after the walk to gather information both specific and general from the participants.

Many cities have existing formal and informal walking groups that may want to participate in a walking assessment. Senior services can also help with advertising and organizing a group. All project partners should be invited to join. Other groups to invite could include:

- Neighborhood associations
- Local AARP chapters
- Volunteer organizations such as environmental and health groups
- Disability rights/advocacy organizations
- Parent teacher associations
- Environmental groups
- Walking clubs
- Other citizen action groups

There are several comprehensive guides available for conducting walking assessments and audits, a selection of which are listed under Resources at the end of this document. Again, the types of information to be collected, whether it is from a simple walking assessment follow up survey or a more formal field data collection effort, should be decided upon in conjunction with the city and transit agency staff.

Compile information

City and transit agency staff can advise on the most helpful format for documenting and summarizing the information that has been collected in the previous steps regarding barriers and potential improvements. General formats could include:

- Narrative descriptions of information gathering activities and the results
- Tables showing raw data collected from surveys or walking assessments
- Maps showing locations of barriers

The following is an example list of overarching barriers in Pacifica, derived from preliminary conversations with city staff. The list is in no way meant to be comprehensive or specific and is only meant to illustrate that the different types

of barriers present depends on the environment of the project area and the people living in it. Ideally, the compiled information is detailed and organized.

- Crossings
    - Not enough crossing time at signalized intersections
    - Lack of visibility at midblock crossings near senior living facilities
    - Steep cross slopes when crossing perpendicular to steep hills
    - Condition of pavement – cracks etc., can be difficult
- Uneven transitions between crossings and the sidewalk or curb cut
- Steep hills - difficult to walk up/down
- Narrow streets in neighborhoods

In some cases it might be helpful to view the barriers and potential improvements in a map. There are a few easy and inexpensive methods for doing this. One of the simplest ways is to create a map using Google My Maps and then to either import a list with addresses or individual place markers. Google Fusion Tables are similar but have more options for viewing and editing the data. Another option is to digitally collect the data while out in the field using a smartphone or tablet. There is an inexpensive service called Fulcrum that enables users to easily create custom mobile applications for field collection. Data can be added and edited through the web interface and exported to multiple formats.

Identify potential improvements

Conversations with city and transit agency staff, as well as the funding source(s) identified in Phase I, will play a large role in determining appropriate solutions and improvements to the barriers identified in the previous steps. There may be multiple potential improvements for addressing a single barrier. Additional resources for identifying potential improvements are discussed below.

There are several comprehensive toolkits available that match potential improvements to common walkability barriers. Some include associated costs. These toolkits should be used only in consultation with the project partners to identify potential improvements. Selected toolkits are listed under the Resources section at the end of this document.

Local and regional plans

Cities' Bicycle & Pedestrian Plans and Circulation Elements from the general plan are good initial places to look for potential improvements. The improvements recommended in these plans are specific to the locale and have already been vetted by several levels of city staff and elected officials.

The Circulation Element of the City of Pacifica General Plan identifies portions of the Linda Mar neighborhood as a "Pedestrian Priority Zone." Specific pedestrian-oriented streetscape design elements are recommended for Pedestrian Priority Zones, including:

- "Pedestrian crossings should have a high priority at intersections, with curb bulb-outs at key intersections."
- "Sidewalks should be a minimum of eight feet wide with ample pedestrian amenities such as street furniture and wayfinding signs, and a consistent street tree theme."
- "Building frontages should provide a high level of pedestrian interest, with ample windows, doors and architectural articulation."

The Circulation Element also identifies "Implementing Policies" for pedestrian access where feasible and appropriate, such as:

- Reduced curb-to-curb road widths
- Wider sidewalks
- Islands
- Bulb-outs
- Improved striping and signage
- Street trees
- Pedestrian amenities
- Pedestrian countdown signals
- Pedestrian refuges

ADA Standards & Universal Design

The Department of Transportation's Americans with Disabilities Act (ADA) standards are the minimum requirements that comply with the law. They provide a base standard for certain elements of path of travel, but they are not necessarily best practice. Universal design principles are intended to create

environments that are more usable by people of all abilities. Universal design features for path of travel often go a step further than ADA standards towards providing accessible environments. For example, the ADA requires that sidewalks be a minimum of 36 inches wide, but universal design standards suggest five feet or more to accommodate pedestrians in both directions and larger mobility devices.

Toolkits and guides that describe ADA and Universal Design standards for path of travel are listed under the Resources section.

Other considerations

When identifying potential improvements, it is important to keep in mind that there are always tradeoffs. Specific improvements will likely have both a positive and negative impact, depending on the priorities of the parties affected. For example, a new signalized crossing may provide a safer and more convenient way for pedestrians to access a shopping center, but adjacent residents may object to the potential increase in noise and fumes from idling vehicles. Another example is detectable surfaces at curb ramps that enable people with vision impairments to know where a crossing is, but are difficult for some people using mobility devices to navigate.

There are additional considerations for improvements that affect the circulation of vehicles, such as traffic calming measures. For example, speed bumps on neighborhood streets may slow down vehicles thus making pedestrians feel safer, however these can also slow down emergency response vehicles. A high number of collisions in an area can potentially justify impacts to traffic circulation and so collision data should be examined (see Resources section).

Prioritize improvements

Once barriers and potential improvements are compiled, they should be prioritized according to established criteria. Below is a list of potential criteria to be considered when prioritizing projects. Many prioritization criteria will already have been determined by the needs of the essential partners and the potential funding sources. Stakeholders and the target populations should be consulted; however, the essential partners should ultimately determine the criteria to be used. Certain factors are based on the characteristics of the barrier and some

are based on the characteristics of the improvement and so they are discussed together below. Some factors, such as cost and funding availability may produce short- and long-term priorities.

- **ADA standards** - Does the improvement bring a non-ADA compliant element up to compliance?

- **Universal design** – Does the improvement follow universal design principles and standards?

- **Consistency with city plans and policies** – Is the improvement listed in any local planning documents? Is the improvement located in an established pedestrian priority zone? Does the improvement align with city policies outlined in the general plan?

- **Proximity to target populations** – Is the barrier/improvement near where the target populations gather? Are there a large number of the target populations and/or transit-dependent populations living nearby? Are there important destinations and resources for the target populations nearby?

- **Transit stop usage** – How many people get on and off at the closest transit stops? What are the characteristics of the people that use these stops?

- **Path of travel** - Is the barrier and associated improvement in a well-used path of travel between bus stops and important destinations? Is there a feasible alternative route that could be used to avoid the barrier?

- **Impact on circulation** - Would the improvement adversely affect other modes of travel?

- **Pedestrian safety** – Does the improvement increase pedestrian safety? Does it address a pattern of pedestrian collisions?

- **Related projects** - Are there opportunities to collaborate and build on other projects or improvement efforts currently being planned?

- **Cost** – What are the estimated costs to purchase, construct, and maintain?

- **Economies of scale** – Are there multiple similar improvements that could be made together and therefore benefit from economies of scale?

- **Availability of funding sources** – Are there readily available funding sources that can be used for the improvement? Would they cover the full cost?

- **Feasibility** – Is the improvement feasible given the context and location?

Phase III – Next Steps

Share information and identify opportunities for collaboration

The next steps will largely depend on how the essential partners wish to use and share the information gathered, compiled, and prioritized under Phase II. At a minimum, the information should be shared with relevant city staff so that it can be utilized should opportunities for funding and implementation arise. For example, a development project could be proposed adjacent to proposed path of travel improvements identified through this process.

Another option for sharing the information is to make presentations to:

- City Council
- Bicycle Pedestrian Advisory Committees
- Other city committees and commissions
- Additional project partners

The information can also be used to inspire and focus participation by citizens and advocacy organizations. For example, a group of seniors may want to attend a council or commission meeting where pedestrian improvements are being discussed and budgeted for.

The information should also be shared with project partners, especially where there are opportunities for collaboration. An ideal collaboration would be for the transit agency and city to improve transit stops and the path of travel to those stops in tandem.

Opportunities for collaboration should continue to be monitored. Partnerships established during this process should be maintained through ongoing communication.

Pursue funding

Many of the improvements that will be identified could be implemented through road maintenance programs, capital improvement programs, ADA compliance programs, integrated into larger projects, or conditioned as part of new development. Additionally, there are a variety of competitive grant programs that focus on projects that support transit access, active transportation, safety, or economic development.

California law mandates that individual property owners are responsible for maintaining the sidewalks adjacent to their properties in safe condition. Some California cities develop comprehensive sidewalk repair projects, assessing property owners and then putting out construction contracts to repair damaged sidewalks. Cities have varying methods and levels of enforcement of the regulations.

There are several resources for comprehensive information regarding the myriad of funding sources that can be used for pedestrian improvements, including:

- The companion document to the San Mateo County Bicycle and Pedestrian Plan contains descriptions of potential federal, state, and local funding sources for pedestrian projects.
  ccag.ca.gov/wp-content/uploads/2015/01/00-Resource-Guide_Sept2011_FINAL.pdf

- Valley Transportation Authority's (VTA) 2017 Pedestrian Access to Transit Plan (Appendix C) includes a list of potential federal, state, and regional funding sources for improvements, including eligibility and cycle timing.
  www.vta.org/projects-and-programs/planning/pedestrian-program

- The UC Berkeley California Active Transportation Safety Information Pages (CATSIP) contains a list of state and local funding sources.
  catsip.berkeley.edu/resources/funding-opportunities

RESOURCES

Walking Assessment Toolkits

- Checklist for Assessing the Accessibility of Transportation and Mobility - National Aging And Disability Transportation Center + US DOT
www.nadtc.org/wp-content/uploads/NADTC-Checklist-for-Assessing-the-Accessibility-of-Transportation-and-Mobility.pdf

- A Technical Guide for Conducting Pedestrian Safety Assessments for California Communities - UC Berkeley Institute of Transportation Studies Technology Transfer Program
www.techtransfer.berkeley.edu/sites/default/files/file_uploads/psa_guidebook_2013.pdf

- Walking Route Audit Tool for Seniors (WRATS) - Active Living
Researchactivelivingresearch.org/sites/default/files/WRATS_AuditTool_07.17.09_0.pdf

- Walkability Audit Tool - US Dept of Health and Human Services, CDC
www.cdc.gov/physicalactivity/worksite-pa/pdf/walkability_audit_tool.pdf

- Walkability Audit Tool - Western Australia DOT
www.echocredits.org/downloads/719215/AT_WALK_P_Walkability_Audit_Tool.pdf

Pedestrian Improvement Toolkits

- NADTC - Toolkit for the Assessment of Bus Stop Accessibility and Safety
www.nadtc.org/wp-content/uploads/NADTC-Toolkit-for-the-Assessment-of-Bus-Stop-Accessibility.pdf

- Costs for Pedestrian and Bicyclist Infrastructure Improvements - UNC Highway Safety Research Center
www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf

- Pedestrian Facility Design – Pedestrian & Bicycle Information Center
www.pedbikeinfo.org/planning/facilities.cfm

- US DOT Federal Highway Administration – Accessible Sidewalks & Street Crossings – An Informational Guide
www.bikewalk.org/pdfs/sopada_fhwa.pdf

- A Checklist for Accessible Sidewalks and Street Crossings
  www.pedbikeinfo.org/cms/downloads/Checklist_Accessible_Sidewalks_Crossings.pdf

- National Association of City Transportation Officials - Urban Street Design Guide
  nacto.org/publication/urban-street-design-guide/

- The Principals of Universal Design
  projects.ncsu.edu/ncsu/design/cud/pubs_p/docs/poster.pdf

Additional Resources

- Transportation Injury Mapping System (TIMS) – CA Collision Data
  tims.berkeley.edu/

- Statewide Integrated Traffic Records System (SWITRS) – CA Collision Data
  iswitrs.chp.ca.gov/Reports/jsp/userLogin.jsp

- AllTransit Metrics – Contains a wealth of information about access to transit that can be helpful identifying opportunity areas.
  alltransit.cnt.org/metrics

- Census Factfinder
  factfinder.census.gov

- Fulcrum – Create custom mobile applications to collect field data
  www.fulcrumapp.com/

- Google My Maps – create simple maps
  www.google.com/mymaps/

- Google Fusion Tables – create maps with customization
  support.google.com/fusiontables