Great Communities Take Care of Senior Mobility Needs

Overview
This policy fact sheet includes:

1. Introduction

The purpose of the "**Great Communities Take Care of Senior Mobility Needs**" Policy Fact Sheet is to provide a snap shot of the top issues to consider when planning for new development or an existing neighborhood near transit. We are currently undergoing a senior population boom as baby boomers age and live longer with increased medical advancements. However, many of these seniors are aging in communities where the only feasible way to get to basic needs, such as groceries, the pharmacy or the senior center is by car. As we engage with planning for great communities through city planning processes, it is crucial to ensure that the plans respond to and reflect the needs of the single largest demographic group that we call seniors. Seniors are defined as people aged 65 and up.

This Fact Sheet provides statistics that highlight the demographic changes, the unique transportation needs of seniors and the compelling health and safety reasons for planning for communities that take care of seniors and their transportation needs. Planning for senior transportation means ensuring that basic senior services are located conveniently near each other so that they are easily accessible to each other. It also means providing the highest quality of pedestrian facilities because 50% of non-drivers are over 65. Seniors are also highly transit dependent, needing a creative mix of public and paratransit networks and services. Finally, ensuring that seniors are represented and engaged in all planning processes is paramount to successfully addressing the unique needs of seniors in your community.

2. Quick Facts

CHANGING DEMOGRAPHICS

The Senior Silver Tsunami – The Coming Senior Population Boom: 71 million Americans will be over 65 years old by 2030, which is **one in five Americans**, according to the US Census Bureau. Making sure seniors can maintain independence through safe, walkable communities is also a way to maintain health. [i]

Suburban senior population growth combined with rapid growth in the oldest age groups, create an imperative for good mobility planning today. A significant portion of senior population growth is expected to be in areas poorly served by transit. Not only is the size of the senior population expected to grow rapidly, the most rapid growth is expected to occur in the oldest age groups which have the most severe mobility problems. [ii]

NEED FOR TRANSPORTATION POLICIES TO SUPPORT SENIOR MOBILITY

More than one in five (21%) Americans age 65 and older do not drive. Some reasons include: Declining health, eyesight, physical or mental abilities; concern over safety (self-regulation); no car or no access to a car; personal preference. [iii]

More than 50% of non-drivers age 65 and older - or 3.6 million Americans – stay home on any given day partially because they lack transportation options. The following populations are more heavily affected: rural communities and sprawling suburbs; households with no car; older African-Americans, Latinos and Asian-Americans. [iv]

More liveable communities have lower rates of staying home, and higher rates of public transportation use and walking among non-drivers aged 65 and over. 61% of older non-drivers stay home on a given day in more spread-out areas, as compared to 43% in denser areas; More than half of older non-drivers use public transportation occasionally in denser areas, as compared to 1 in 20 in more spread-out areas (see graph); One in three older non-drivers walks on a given day in denser areas, as compared to 1 in 14 in more spread-out areas.
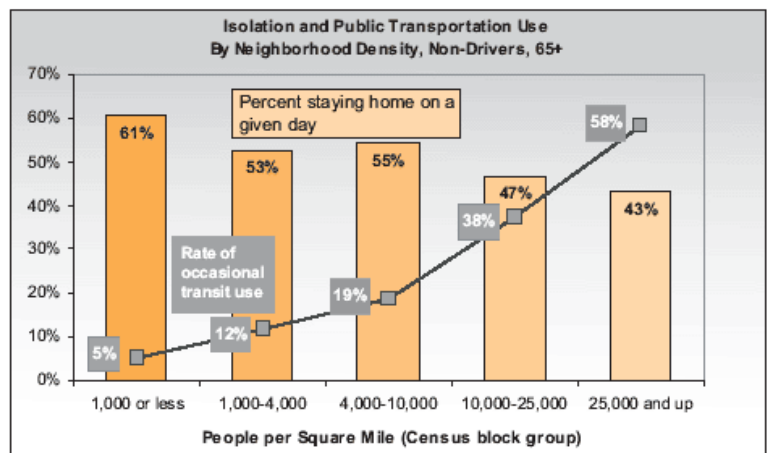
NHTS 2001, STPP Analysis

Older non-drivers have a decreased ability to participate in the community and the economy. Compared with older drivers, older non-drivers in the United States make: 15% fewer trips to the doctor; 59% fewer shopping trips and visits to restaurants; 65% fewer trips for social, family and religious activities. [v]

The importance of walking and public transit increases with age: In a survey of San Mateo County Seniors it was found that for white respondents, the top factor in deciding where to live later in life was "live where I can walk to shopping and restaurants," while for African-American, Latino and Asian/Pacific Islander respondents, the top consideration was "live where I can get to doctors and hospitals by public transit." Clearly, placing housing in walkable and transit accessible locations will become even more important to creating livable communities over the next few decades. [vi]

50% of Seniors in Europe walk or bike regularly: In European countries where cities are denser and there is better pedestrian infrastructure, up to 50% of seniors walk or bike compared to just 8% of American seniors. [vii]

HEALTH STATISTICS FOR SENIORS AND ACTIVE LIVING

The Surgeon General recommends 30 minutes of moderate activity a day: Traditionally only exercise activities involving a higher heart rate were considered important. This conception has changed since the Surgeon General announced a recommendation of 30 minutes of moderate exercise daily. For seniors, a one-mile trip is a thirty-minute walk if seniors go 2.8 ft/s, that's 1.9mph, or fulfilling the recommended daily exercise regimen.[viii]

Walking reduces costs to society. The CDC estimates that if 10 percent of adults began a regular walking program, $56 billion in heart disease costs could be saved. (CDC 2003)

Health benefits of biking and walking: According to the Centers for Disease Control, a "shift in auto trips to walking and biking" is the number one strategy to reduce diseases related to inactivity, such as heart disease, diabetes, and some types of cancer.

In the Bay Area 12.5% of all trips by people age 65 and older are made by walking.[ix]

A safe and inviting walking and bicycling environment provides mobility and health benefits to many older Americans. More than half of older Americans make walking a regular activity, and nearly two-thirds walk a half mile at least once a month. Four percent of older Americans ride a bicycle at least once a week.[x]

Vehicle accidents with senior pedestrians are more likely to result in death: In 2007, older Americans made up 19% of all pedestrian fatalities although they only make up 13% of the total U.S. resident population (38 million).[xi]

Most people including seniors are more likely to die at non-intersection locations than at intersections: 60% of senior pedestrian fatalities occurred at non-intersection locations which is a little less than the total population where 81% of pedestrian fatalities occur at non-intersection locations.[xii]

Minority seniors own fewer cars and are more likely to use transit: More than one-quarter of older African-Americans live in households with no cars - 28 percent. One in five, or 19 percent of older Latinos, and 9 percent of older Asian-Americans live in households with no cars. On the other hand, older African-Americans, Latinos and Asians are much more likely to use public transportation regularly than their white counterparts. While 10 percent of older whites use public transportation at least occasionally, 21 percent of older African-Americans, 21 percent of older Latinos, and 16 percent of older Asian-Americans use public transportation at least occasionally.[xiii]

Effects of aging:
In general, the aging process causes a deterioration of physical, cognitive, and sensory abilities. According to researchers at the Federal Highway Administration (FHWA), National Highway Traffic Safety Administration (NHTSA), and the University of North Carolina Highway Safety Research Center (UNC-HSRC), problems experienced by older pedestrians can include in varying degree:
- Decreased visual acuity, poor central vision, reduced ability to scan the environment
- A reduced range of joint mobility
- Reduced ability to detect and localize different sounds
- Reduced endurance
- Reduced tolerance for extreme temperature and environment
- Decreased agility, balance, and stability
- Inability to quickly avoid dangerous situations

- Slower reflexes
- Excessive trust that other motorists will obey traffic laws
- Impaired judgment, confidence, and decision making abilities

What's more, seniors are more likely to experience restrictive disabilities than other age groups. In 1995, 52.5 percent of seniors reported having one or more disabling conditions. Nearly three quarters of the over-80 population reports having one or more disabilities. [xiv]

3. Designing TOD for Seniors

The section below is an inventory of strategies and design features to consider in addressing how well a Specific Plan or Station Area Plan responds to senior mobility needs. This list includes both physical infrastructure measures and programmatic recommendations. These criteria are developed from a variety of sources that amount to a Senior Mobility Checklist. The criteria below should be used to both assess the existing community as well as proposed plans.

MAKING WALKING EASIER, SAFER AND MORE ATTRACTIVE TO SENIORS

Creating High Quality Walkable Neighborhoods– The same principles that apply to creating high quality walkable neighborhoods also apply to making a place ideal for seniors to get around. To address the concerns of seniors in a plan area, ask the following questions to ensure a complete street that encourages the oldest community members to get out of their homes, enjoy their neighborhood and engage with their community.

Are Sidewalks Wide Enough? Transit station areas need large pedestrian plazas and wide sidewalks to accommodate morning and evening commutes. Sidewalks within ¼ mile of a transit station should be at least 10 feet wide along main paths. Seniors may walk slower with canes or walkers and need the wider sidewalks to allow faster traffic to move around them without feeling pressured to move aside or to move faster. Benches, trash cans, light poles and other "street furniture" should be placed beyond the portion of the sidewalk dedicated to travel.

Are There Sidewalks or Paths to Major Destinations? At a minimum there should be an inventory of all sidewalks within the ½ mile area surrounding the station area. If there are gaps or obstacles along pedestrian routes to the transit station, bus stops or major destinations within this zone, are they inventoried and prioritized for completing or repairing the sidewalks? One way to prioritize safe senior access is to ensure that walking routes between major senior destinations are improved first.

Develop Programs to Encourage Walking Work with the Senior Center to provide classes on street safety or provide organized local walking tours where seniors get to socialize and enjoy the safety of walking in a large group while learning something new. The Senior Center could also work with the Recreation Department or local Chamber of Commerce to develop easily legible and large font and symbolized maps for seniors to explore their neighborhoods and discover new places to go that are within walking distance.

INTERSECTIONS

Are there curb ramps that are up to code at every intersection? Smooth and frequently placed curb ramps ensure easy movement up and down from street to sidewalk. Each intersection ideally has two curb ramps per corner so that a pedestrian or a wheelchair user doesn't have to change the direction of travel after leaving the curb.

Are the crosswalks highly visible? Crosswalks should increase in visibility and width to accommodate larger number of walkers. Consider in-pavement flashers particularly for mid-block crossings. Also consider adding mid-block crossings where they are most needed.

Are pedestrian signals timed to allow for seniors? FHWA and the USDOT recommended in the Older Driver Highway Design Handbook that pedestrian signal timing be based on a walking speed of 2.8 ft/s which is half roughly half the speed of an average person. A typical signal is timed 4.0 ft/s.[xv]

Are pedestrian signals audible? For individuals with limited vision, the addition of audible signals provides an additional cue for when to cross. More and more cities are also providing pedestrian countdown signals and pedestrian push buttons to help both pedestrians and motorists to navigate predictably at intersections, minimizing collisions.

Are pedestrian signals up to ADA standards? Push buttons can now be designed to require a minimum amount of effort to push. Some models are touch sensors with no button at all.

Are traffic signals timed to prohibit drivers from turning during the first 10 seconds of a traffic signal phase? This traffic signal configuration is called pedestrian lead time and it allows seniors to ascend the curb and begin crossing safely without competing with cars**.**

TRAFFIC CALMING

Are the corners designed to reduce speeding? Tightening the curb radii prevents vehicles from rounding corners at high speeds. See this link for more information: http://www.walkinginfo.org/engineering/crossings-curb.cfm

Are opportunities to add speed tables or elevated cross walks, bulb-outs, and medians identified in the plan? There is a whole host of traffic calming measures that can be implemented to reduce the speed of cars that in turn enhances the walking environment and allowing seniors to feel safer and more visible when they walk. Also consider moving stop bars for cars back 15 feet to provide more distance between pedestrians and cars.

Are opportunities for street closures identified? Occasionally there are places with back alleys or streets that are not frequently used but that could provide an opportunity for creating a pedestrian-only connection. In San Francisco's Japantown a street was identified to be too wide for the volume of traffic inventoried on that particular street and the community decided to create more open space by removing two of the four lanes and converting them into a linear park. These situations create a huge community asset by providing a place to exercise and gather as well as a safe and pleasant place to walk through to get to destinations. It is also possible to create partial street closures allowing traffic to come in only in one direction.

STREET DESIGN

More and more communities are seizing the opportunity to redesign their streets to widen sidewalks to allow room for sidewalk cafes, benches, and pocket parks so that public streets themselves become a part of the network of public outdoor spaces for residents to enjoy. People frequently use these spaces as they would parks, but because they are directly adjacent to book stores, cafes and other places people frequent on a daily basis, they are used even more than some parks. When amenities are well planned, including street lights, garbage cans, benches, water fountains, public art and wayfinding-signage streets can easily become a center of activity for a community.

Paving Surfaces

Seniors are dependent on canes, walkers, wheelchairs and increasingly electric scooters which require well maintained surfaces that aren't too slippery. Although bricks are intended to improve the street design, without vigilant maintenance they can become hazards as they wear and shift over time.

Designing Walking Paths and Routes

In addition to sidewalks, seniors are very likely to use walking paths in their communities for exercise or to get to their destinations, because they are isolated from vehicle traffic. Identify opportunities where pedestrian paths or pedestrian short-cuts can be installed along the edges of properties to provide more direct access to major destinations. When designing or improving walking paths, designs should integrate memory markers, non-circular designs, and use of high contrasting colors to help seniors with increased cognitive impairments.

Resting Areas

Provide a variety of areas for seniors to sit and rest. At the minimum provide one bench per block and make sure that the benches have backs as they are better suited for seniors. Ideally these resting areas are also places where seniors can enjoy the warmth of the sun in the winter and be shielded from heat during the summer, so planning for a variety of locations that are coordinated with landscaping and sunlight is key to designing rest areas that support a more comfortable walking experience.

Restrooms

Provision of public restrooms or working with shop owners to allow seniors access to restrooms is also a huge factor in encouraging seniors to be out and about. In developing walking route maps for seniors make sure restrooms are identified. Additionally always look for opportunities to create a new privately maintained public restroom.

TRANSIT

Most city sponsored planning processes cannot directly remedy transit service recommendations because transit is handled by a separate agency. However, there are some cities that also run a transit system such as the City Bus in Santa Rosa and Union City Transit. It is more likely that transit concerns can be included and addressed in Santa Rosa or Union City, but it is still worth exploring and including these provisions in other cities' plans particularly if an agency is willing to take responsibility for communicating these concerns to the relevant transit agency.

Key questions to ask to assess existing transit options:
- Does the public transportation serve the geographical areas where many older residents live?
- How frequently does public transportation serve these areas?
- How far must an older resident walk to access public transportation?
- What are the primary pedestrian routes to transit stops, and how safe are they for older adults?

- Are transit stops accessible for a range of functional abilities?
- Do transit stations provide sufficient lighting, shelter, places to rest, and restroom facilities? Are these facilities well maintained?
- Are transit maps and information easy to access, read, and use?

Senior Friendly Transit Services:
- Create a satellite bus route/community bus service to serve neighborhoods with a higher concentration of seniors.
- Provide free or steeply discounted shuttle service that serves areas with a high concentration of seniors.
- Provide low-floor vehicles
- Provide regular routes and schedules.
- For new senior housing projects, work with the local transit agency to obtain discounted or free transit passes for residents.
- Create convenient fare payment systems

Designing Senior Friendly Bus Shelters and Transit Stops
- Design ample seating for stops with larger senior populations.
- Provide shelters with protection for at least two if not three sides of the shelter.
- Provide lighting to ensure safe access to and from the stop/station.
- Include handrails at the stops to assist with sitting down and getting up.
- Work with transit providers to install electronic displays that provide information on when the next bus or train will arrive. This reduces passenger anxiety about late buses and allows them time to use the restroom or know how long they can rest before the next bus arrives.

Discounted Taxi Rides: Cities of Richmond, Albany, and Berkeley are some cities in Alameda and Contra Costa County that have discounted taxi programs. Some programs allow seniors or disabled residents to purchase discounted books of scrip. Every City has a slightly different variation of these programs to respond to different community needs, for example in one city each senior or disabled rider can purchase up to three books per month. The taxi company returns the scrip to the City to receive reimbursement. Discounted taxi service is very popular because it eliminates the need to reserve rides ahead of time and they are available 24 hours. This system is also very adaptable so that cities can tailor the program costs according to the local need and funding availability. Find out if your city offers such a program and work with seniors to advocate if not.

Paratransit: was created as a result of the Americans with Disabilities Act of 1990 requiring transit agencies to provide parallel transit systems for the disabled. For individuals far from established transit stops and routes, these services are in place for those who can't get to the established transit stops due to their disability. These are either shuttles or shared taxis and typically require proof of disability and pre-registration with the transit agency to access rides.

Paratransit vehicles must provide:
- service within ¾ of a mile of a fixed route
- a wheelchair lift
- at least two wheelchair accessible seats

It is important to understand that disabled seniors identify themselves first as being seniors and if their disability came late in life, they frequently don't identify themselves as being disabled. This is important to consider in outreach and communication.

REDUCED PARKING

Compared to the average adult population, seniors own fewer cars. Senior housing developments should be allowed to provide fewer parking spaces per unit, particularly when located in a walkable community close to a variety of transit options and destinations. The savings from providing fewer parking spaces can go towards more open space, amenities like community rooms, libraries or for resources such as providing discounted transit passes.

Reduced parking for seniors: Increasingly cities are adopting reduced parking standards for senior homes. Below is a list of cities that have revised their parking codes to reflect the reduced car ownership levels amongst seniors.

City	Senior Housing Parking Requirement
Benecia	0.5 spaces per unit
Napa	0.5 spaces per unit
San Francisco	0.2 spaces per unit
Berkeley	25% reduction for homes reserved for +62
Los Angeles*	0.5 spaces per unit
West Hollywood*	0.5 spaces per unit

*From http://www.cacities.org/resource_files/24076.ParkingGuide.pdf

Unbundled Parking: The cost of a parking space is typically included in the cost of purchase or rent of a home. By "unbundling" this cost, tenants and potential homeowners have the choice to purchase the use of a parking space at an additional cost if a space is needed. Unbundling can allow the cost of a home to be reduced. In San Francisco, the cost of housing was shown to be reduced by 11-12%[xvi]. Seniors who have stopped driving and no longer own a car should be allowed to avoid paying for a parking space they would never use. San Francisco, San Mateo, and Pittsburg all have adopted policies to require unbundled parking in neighborhoods near transit.

4. Communications and Outreach

In an age of increasing cases of senior fraud, is important to be aware of how to best engage senior audiences at senior centers or senior housing complexes. Below are some tips for increasing your effectiveness at reaching out to senior audiences to get them engaged in a planning process:

- Meet with the managers of senior centers or housing complexes in person to establish trust and allow these gatekeepers to verify the sincerity of your intentions.
- Work with city officials or electeds to help establish connections to the gatekeepers.
- Plan meetings around mid-day rather than evenings.
- Make meetings engaging and social and include food. A few Great Communities site leads have been particularly successful at attracting seniors to learn more about planning by calling them a "Pizza Party" or "Coffee Klatch".
- Avoid power point presentations because this requires dimming lights, which can reduce visibility.
- If you provide handouts increase the font size so it is at least 16-20 point. The size of the font in this document is 12 point.

16 Point Font

20 Point Font

5. Policy Recommendations

The section below provides policies that can be adopted to encourage implementation of strategies and infrastructure priorities identified above.

Inventory and Assess Senior existing services and create a plan for addressing the gaps in services- As with any planning process it is important to start with inventorying the community and take stock of what is needed and involving seniors from the beginning to develop this understanding. Part of this is also identifying where naturally occurring retirement communities (NORCs) will occur using census data. With the information of where services and senior enclaves are a community can plan ahead by redirecting transit routes to better serve areas where there are senior hot spots.

Adopt "Communities for a Lifetime" Policies – Adopt policies that integrate smart growth policies with active aging principles to allow older adults to "age in place" in their own homes, or at least nearby within the communities they live in. This policy acknowledges that smart growth policies lead to senior friendly communities. Florida's Department of Elder Affairs partnered with AARP to develop a comprehensive set of strategies and policies that many county's in the state have adopted. See http://www.communitiesforalifetime.org/ for more information.

Senior Advisory Committees – Either engage senior representatives on Planning Advisory Committees or develop a Senior Advisory Committee that can be called on to review parks and recreation plans, trail planning, sidewalks and crossing improvements, and transit planning.

Coordinate with Senior Services Agencies– Support coordination among human service agencies, and between those agencies and transportation agencies at the federal, state and local levels. Seniors frequent senior centers, health clinics, open spaces for recreation and walking paths for exercise. Using geographic information systems map senior services and destinations and overlay the destinations with existing transit services and stops. Highlight areas that need better connections.

Include Senior Housing in Complete Neighborhoods Served by Transit– By locating seniors housing within a 1-10 minute walk (1/2 mile or less) of a transit station that is surrounded by a complete neighborhood with essential services, we create an environment where seniors can thrive. Creating housing opportunities in locations where seniors do not need to rely on a car to get around is extremely important because there are so few locations that provide this kind of convenient and safe living environment. In addition, ensuring that the streets and sidewalks in these neighborhoods are of the highest quality is key to seniors' independence.

Travel Choice for Seniors – Educate seniors to realize the hazards of continuing to drive despite declining hearing, sight, mobility and reaction time. Work with them to learn about alternatives to driving. Develop funding sources or volunteer programs to provide personalized training on transportation options.

6. Who is doing this?

Below are examples of communities that have created senior housing in locations that allow for active and independent living. These projects are either locating new housing near services needed on a regular basis, or adding services to primarily residential districts to bring services and needs closer to the seniors. There are also a host of programs these communities provide, from training seniors how to use transit systems to starting walking clubs and senior shuttle systems.

Affordable Senior Housing built close to Health Care, Transit, Shopping and Services

Chestnut Creek – South San Francisco: Cities throughout San Mateo County have begun to develop the types of housing projects desired by seniors – affordable high density, transit oriented developments near essential services and community places. BRIDGE Housing Corporation partnered with the City of South San Francisco to redevelop a one acre site into affordable senior housing. The project is 100 percent affordable with 40 units available to residents 65 years and older. Chestnut Creek is within walking distance of shopping and grocery stores, restaurants, bus services, health care and social services, recreation areas, a park and near the Kaiser Hospital and the South San Francisco BART station.

Hayward Senior Apartments - Hayward: This 60 unit project was developed by Eden Housing, a non-profit housing developer. Thanks to Hayward's inclusionary zoning requirement, when market rate housing is approved a portion of these homes must be affordable. In this case, Citation homes gave 1.5 acres of land to Eden to build the senior homes as part of the Hayward Cannery Row project which included 628 condos. The location is just west of the Hayward BART station. Within a 10 minute walk is City Hall, a grocery store and downtown shops and restaurants.

Avalon Senior Apartments - Emeryville: East Bay Asian Local Development Corporation (EBALDC), also a non-profit housing developer, built this 67 unit project just over 10 years ago. These homes located on San Pablo Ave. at Adeline are served by both the major transit corridor and a regional transfer point between San Francisco and the East Bay. Across the street is a shopping center with groceries, shops and services. EBALDC always conducts outreach to neighboring senior centers when they begin to planning new senior housing projects. They make special considerations for architectural designs including maximizing ADA access and varying materials and colors to help navigation within the building.

The following projects are examples from the Building Healthy Communities for Active Aging Awards by the EPA
(http://www.epa.gov/aging/bhc/awards/2007/bhcaaa_booklet_0208.pdf)

Comprehensive Strategies: Outreach, Partnerships, Zoning and Development
Aging Atlanta and the Lifelong Communities Initiative
http://www.atlantaregional.com/html/467.aspx
Aging Atlanta is a 50 organization partnership of organizations focused on meeting the needs of the region's growing older adult population. The Lifelong Communities Initiative was developed to work with local governments to create housing and transportation options that enable older adults to "age in place."

To improve housing options, the Atlanta Regional Commission (ARC) facilitated:

- Zoning policy changes to increase allowed residential density around neighborhood centers.
- Development of 30 senior housing developments located near services and connected to existing neighborhoods.

With 90% of Atlanta's older adults relying on autos for transportation, ARC is decreasing auto-dependency by:
- Promoting ride sharing through its six voucher programs,
- Working to improve bus stops and routes.

To encourage healthy lifestyles:
- Convert traditional senior centers into wellness centers, emphasizing physical activity and social interaction. In the Atlanta region 46 centers offer programs for 400,000 older adults where 1,000 individuals have joined walking clubs.
- Older adult needs were integrated into parks, trails and pedestrian paths.
- Working with city and county staff, age appropriate features were integrated into local sidewalk audits and plans.

Program and Infrastructure Strategies
City of Kirkland, Washington –Kirkland strives to make its physical activities more accessible for its 19,000 older residents by organizing exercise opportunities and improving infrastructure:
With guidance from the **Active Living Task Force** and the **Kirkland Senior Council**, the city offers (http://www.ci.kirkland.wa.us/Community/healthy/Active.htm):
- 50 physical activity programs specifically designed for older adults.
- The Kirkland Steppers Walk Program, which is free for adults over 50, organizes group walks through downtown twice a week during the summer.
  (http://www.pnwlocalnews.com/east_king/kir/community/19468769.html)

Over the next five years the city plans the following infrastructure improvements:
- Invest $1.6 million to improve sidewalk connections between commercial and residential developments to make the city more walkable.
- Adopted the first Complete Streets Ordinance in the state of Washington that calls for street designs to meet the needs of all people who use streets from walkers, bicyclists, the disabled to drivers.
- Adopted the "Ped Flag" Program where 30 crosswalks are supplied with flags to remind drivers to yield to pedestrians
- Incorporated flashing crosswalks at 30 crosswalks.

Planning for Mixed Use Centers, Senior Transportation Services
The Brazos Valley Council of Governments (BVCOG), Texas – With input from citizens and stakeholders this regional planning association, encompassing seven counties, created the Brazos Valley Building Healthy Communities Coalition to link smart growth and active aging principles in both rural and urban areas of the region. One of their primary achievements was designating the Wolf Pen Creek Corridor as a special design district.

The BVCOG's Agency on Aging created a Senior Transportation Program to provide door-to-door rides to senior centers, retail centers, and health care facilities for older residents. The program is staffed primarily by volunteers and serves more than 1,000 riders a month.

Public Health Driven Master Plan and Development

Carver County, Public Health Division, Minnesota – The Public Health Department developed a Master Plan on Aging that resulted in creating an Office of Aging. Carver County is expected to quadruple their 65- plus population by 2030. The approach lays a foundation for improving housing, transportation, and physical activity options throughout the county. The Master Plan encouraged and supported developments like The Crossings to create walkable communities that increase physical activity levels of older adults. The Crossings is a mixed use development that will locate the following together: city offices, a public library, and 68 senior homes

Revamping Senior Centers and Planning for Development

City of Rogers, Arkansas – The city created the Adult Wellness Center on a formerly blighted site. The site for the AWC was chosen because of its proximity to key amenities. Within walking distance of the AWC is a 32-unit low-income senior housing complex, hospital, library, grocery store and mall, completing a walkable smart growth community. Future plans for the neighborhood include a 72-unit mixed-income housing complex and a three-acre wellness garden with trails that will connect to the city trail system.

TRANSIT AGENCIES WORKING TO CREATE SENIOR FRIENDLY SERVICES

Transit agencies around the country are developing ways to address the unique needs of seniors to improve their experience and encourage them to continue using public transit. The American Public Transit Association compiled an extensive list of examples that communities can draw from. The strategies highlighted include:
- Vehicles that are easier to board and access;
- Broad portals of information that are more user friendly;
- Reduced fares,
- Employee awareness training,
- Buddy travel programs
- Individualized assistance

Santa Rosa "Seniors on the Go" and "Bus Buddy" programs. Since 2001 the City of Santa Rosa provided one week of free bus passes for seniors. During this week the city provided "Riding Tips" on where to ride and when to ride to avoid student rush hours. The Bus Buddy program pairs seniors up with escorts to provide personalized bus training to improve confidence and familiarity with the system.

Napa County Transit Ambassador Program – The County program, similar to the Bus Buddy program trains volunteers who are bus riders themselves to provide personalized bus training. By helping people navigate the system, understand how to read time tables, and familiarize with the kneeling bus capabilities, seniors can learn how to expand their mobility options. Volunteers apply to become a Transit Ambassador and if selected are given a uniform, 4 hours of training, a free transit pass and are required to give eight hours a month with new transit riders. The cost is approximately $600-$800 a year for 13 Ambassadors and $7,100 in staff time for program coordination. Each ambassador strives to train eight new bus riders a year.

West Oakland Senior Shuttle – This shuttle serves 14 senior housing complexes and connects them to food shopping and senior center meal programs. The shuttle is funded by a mix of private and public sources. The shuttle provides an attendant in addition to drivers to help riders with groceries and packages.

Charlotte Area Transit System (CATS), Charlotte, NC - CATS provides a series of initiatives to educate seniors about its bus service, and to demonstrate the convenience of public transportation. By partnering with local churches, senior centers and community groups, CATS sponsors "demonstration rides" for older residents, scheduled seven or eight times a year, to shopping malls and social events. In addition, CATS developed a database of bus stop features that identifies elements needing improvement and installed new trip-planning systems to show photographs of stops to riders. Through funds from the Elderly General Purchased Transportation Program, the agency and the Department of Social Services subsidize vouchers for use on local taxis for older residents who neither live near a bus route nor are eligible for transportation assistance through human service programs. Seniors in Charlotte also pay only half fare, are guaranteed reserved seating, and have access to low-floor or "kneeling" buses for easier boarding and exiting.

Palm Tran, Palm Beach County, FL - Palm Tran operates Seniors in Motion, a comprehensive public awareness and training program for seniors age 75 or older living in Palm Beach County. Two full-time trainers have taught thousands of individuals how to ride the bus and use rail services through seminars and presentations at senior clubs, community centers and other senior-oriented gatherings.

Lane Transit District (LTD), Eugene, OR - LTD operates a one-on-one training initiative called the Bus Buddy Program, which, by breaking down barriers and building confidence, teaches seniors how to ride the bus in a relaxed way. LTD recruits regular bus riders, known as "bus builders," to serve as volunteers and teach seniors how to plan trips and navigate routes. The agency partners with local senior centers to match individual seniors with these volunteers. In addition, seniors age 62 and older can ride LTD buses free every Tuesday, courtesy of community sponsors. In what has become an extremely popular program, seniors schedule doctor appointments, visits with friends and shopping trips on Tuesdays to take advantage of this offer. For individuals age 70 and older, LTD offers a Pass for Life card.

7. Dig A Little Deeper?
Senior Mobility Toolkit, September 2003 – by Nelson\Nygaard published by MTC.
http://www.mtc.ca.gov/library/oats/Senior_Mobility_Toolkit.pdf
The Bay Area Metropolitan Transportation Commission produced a case study guide to transportation strategies that can assist older populations with transitioning from depending on a car to living actively by walking, rolling, taking public transit or biking. The document provides Bay Area examples of communities that created programs for senior transit education, local shuttles,

private funding of additional services and how to work effectively with volunteer labor. The Toolkit also suggests ways to modify homes for senior proofing as well how to ensure safe driving by seniors.

Active Living for Older Adults: Management Strategies for Healthy and Livable Communities, September 2003 - International City/County Management Association
http://bookstore.icma.org/freedocs/Active_Living.pdf
This document highlights the importance of planning for communities that encourage active living, the benefits to be gained by individuals and the community, and how to implement policies to encourage active living.

National Center on Senior Transportation
www.seniortransportation.net/
This website compiles a variety of resources on how to plan for senior transportation needs. The website is primarily an online library with PDF links to entire reports which are searchable through the online database. The content is oriented towards two main audiences: Senior care providers who are seeking information about transportation options to provide their clients and transportation service providers.

Aging Americans: Stranded Without Options by Linda Bailey with the Surface Transportation Policy Project, April 2004.
http://www.apta.com/research/info/online/aging_stranded.cfm
This report assembles a variety of data sources to document the conditions that seniors currently face given the patterns of how a majority of communities were built over the last 40 years. A key indicator of senior vitality is how frequently individuals get out of their homes on a day to day basis to get groceries or medications, see friends or visit the doctor. The report correlates the lack of transportation options and lower densities with seniors being more likely to stay at home.

Liveable Communities for All Ages – 2005

Center for Home Care Policy & Research – Case Studies
Published by the U.S. Department of Health and Human Services-Administration on Aging
This document highlights seven case studies of communities that pursued innovative programs and strategies for retrofitting existing communities to better suit the needs of their growing senior population. The case studies are organized by size of community and each profile includes a 2-3 page summary of the programs offered by the community that address health, transportation, housing needs of older adults. The strategies involve everything from creating a robust volunteer network, foundation funding and agency coordination

The Great Communities Collaborative Toolkit

http://www.greatcommunities.org/index_files/toolkit.htm
The Great Communities Collaborative Toolkit is full of information about transit-oriented development and makes available handouts about the benefits of less traffic as well as designing for walking and biking.

Walking Info

www.walkinginfo.org
Locate information about various engineering best practices for a variety of pedestrian improvements. There is a great image library showing built examples of these improvements.

[i] Linda Bailey. "Aging Americans: Stranded Without Options." Surface Transportation Policy Project. April 2004.

[ii] Nelson\Nygaard. "Senior Mobility Toolkit." Metropolitan Transportation Commission. September 2003.

[iii] Linda Bailey. Ibid

[iv] Linda Bailey. Ibid

[v] Linda Bailey. Ibid

[vi] San Mateo County Aging Model: Better Planning For Tomorrow – Policy Brief Issue 3:Housing www.smhealth.org/hpp

[vii] Linda Bailey. Ibid

[viii] US Surgeon General, 2001. "The Surgeon General's Call to Action To Prevent and Decrease Overweight and Obesity.
http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_vision.htm

[ix] Nelson\Nygaard. "Senior Mobility Toolkit." Metropolitan Transportation Commission. 2003

[x] Linda Bailey. Ibid

[xi] National Highway Traffic Safety Administration, *Traffic Safety Facts: Older Population.* 2007.

[xii] National Highway Traffic Safety Administration Ibid

[xiii] Linda Bailey. Ibid

[xiv] www.walkinginfo.org – Designing for Special Pedestrian Populations
http://www.walkinginfo.org/engineering/pedestrians.cfm

[xv] www.walkinginfo.org Ibid

[xvi] Jia, Wenya and Martin Wachs. 1998. *Parking Requirements and Housing Affordability: a Case Study of San Francisco.* University of California Transportation Center. Paper#380.