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Urban Village Planning for Community Livability

Guidance for Creating Complete Walkable Neighborhoods to Maximize Health, Wealth and Happiness

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Urban villages maximize multimodal accessibility which minimizes transportation costs and disparities between drivers and non-drivers, and between higher- and lower-income travellers. Because they encourage walking and use of local services, they increase livability and sociability. This tends to increase community health, wealth and happiness.

Many people want to live in urban villages but cannot due to inadequate supply. This study describes why and how to serve these demands.

Summary

Urban villages are compact, walkable neighborhoods where commonly used services are easy to access without driving. By reducing per capita land consumption, improving accessibility and reducing motor vehicle travel, urban villages provide many livability benefits including affordability, inclusivity, equity, economic opportunity, public health and safety, environmental protection and economic development. By increasing walking and use of local service they also tend to increase community cohesion – positive interactions between residents – which provides additional benefits including public safety and security. Urban village planning defines the number of people and jobs, housing types, services and amenities that should be located within a *walkshed* – the area that people will walk for errands. Many people want to live in urban villages but cannot due to inadequate supply. This study examines why and how to serve this demand. It identifies specific urban village planning practices and performance targets.

Automobiles are machines for mobility; urban villages are machines for accessibility.

Introduction

Wonderful things can happen when enough people and services locate close together so most needs can be satisfied without driving. This reduces transportation costs and creates friendlier communities, improving residents' health, wealth and happiness.

There are many names for such communities including *complete* or *15-minute neighborhoods*, *New Urbanism* and *Smart Growth*, but this report uses the term *urban village* to emphasize their compact scale and sociability. Urban villages have specific design requirements. They must contain enough services to satisfy residents' needs, and enough customers to support those services. They must be compact and mixed to maximize proximity between people and services. They must be multimodal, with excellent walkability and limited vehicle travel to reduce traffic problems and pavement area. They require an attractive public realm to encourage positive neighborly interactions.

Well-planned urban villages provide much better access to services and jobs than conventional development, at far lower costs. Urban village residents tend to own fewer motor vehicles, drive less and rely more on non-auto modes. This reduces user expenses, community infrastructure and traffic impact costs, pavement area and environmental harms, and because they walk and bicycle more, residents tend to be healthier and have more positive interactions with their neighbors.

Urban village planning helps achieve social equity goals. By improving non-auto travel and reducing automobile traffic it reduces disparities in comfort, safety and economic opportunity between drivers and non-drivers. It increases affordability, reducing financial burdens on lower-income families. It also reduces the external costs – infrastructure subsidies, congestion, risk and pollution – that vehicle traffic imposes on communities.

Such communities don't just happen; they must be planned. Urban village planning defines the number of people, jobs and services that should be located within a *walkshed* – the area that people will normally walk for local errands. Such planning must limit motor vehicle traffic and encourage active travel. It must create walkable streets and an attractive public realm. It must prioritize livability.

Urban village planning requires shifting from *mobility-based* planning which prioritizes speed, to *accessibility-based* planning which strives to maximize proximity and transportation system diversity, so less vehicle travel is required to meet our needs. This recognizes the value of density and mix, and the important roles that slower modes play in an efficient and equitable transportation system.

This is a timely issue. Many people want to live, work and visit urban villages, but cannot due to inadequate supply. Virtually everybody benefits if more families live in such neighborhoods. Many jurisdictions are trying to serve latent demands for urban villages, but there is little practical guidance for optimizing their densities, housing types, services, mode share, transportation infrastructure and parking supply.

This report investigates these issues. It defines urban villages, describes specific requirements and a system for rating them, examines their potential benefits and costs, provides guidance for planning them for maximum value, and describes how to communicate these benefits to various audiences. This should be of interest to public officials, planning practitioners, home buyers, and the general public.

Defining Urban Villages

Urban villages are compact, walkable neighborhoods where it is easy to get around without driving. The table below defines related terms.

Table 1 **Urban Village Planning Terms**

Term	Description
Urban village	Compact, mixed, very walkable neighborhoods where commonly used services are easily accessible by non-auto modes and people have positive social interactions.
Complete community	A neighborhood that includes most services and activities.
15-minute neighborhood	Area where commonly used services are within a 15 minute walk, bike or transit trip.
Walkable community	Neighborhoods with excellent walkability (generally Walk Scores over 70).
Transit-oriented dev. (TOD)	Compact walkable neighborhoods organized around a major train station or bus route.
Accessible community	Compact community where many services and activities are nearby.
Opportunity neighborhood	Neighborhoods that improve disadvantaged households economic status.
New Urbanism	Buildings and streets designed for compact, walkable neighborhoods.
Smart Growth	Local and regional policies that encourage compact, multimodal development.

"Urban village" is one of several terms referring to compact, mixed, multimodal development.

Urban villages are multimodal: they accommodate walking, bicycling, transit and driving. They are planned as *walksheds*, the area people normally walk for errands, which typically covers about 500 acres. By encouraging walking and local services they increase *community cohesion* (positive relationships among residents) which tends to reduce crime, increase disadvantaged residents' success and support local economic development (Litman 2020). They usually have Walk Scores over 70 and *Compact Index* ratings over 80 (Ewing and Hamidi 2014), although these tools only consider a limited set of planning factors and so are incomplete indicators of overall urban village performance. More comprehensive analysis is needed to reflect all accessibility and livability goals (Birkenfeld, et al. 2023).

The table below compares neighborhood types. Urban villages are compact and multimodal, but do not prohibit automobiles like car-free neighborhoods in recognition that some households need personal vehicles. Most transit-oriented developments (TODs) are urban villages created around transit stations, but not all urban villages are TODs since some only have moderate quality transit.

Table 2 **Neighborhood Types**

	Car-Free	Urban Village	Urban Neighborhood	Suburban Neighborhood	Exurban Areas
Description	Driving restricted neighborhoods	Compact and very walkable	Compact and multimodal	Sprawled and auto dependent	Very sprawled and auto dependent
Density and mix	Moderate to high	Moderate to high	Moderate	Low	Very low
Non-auto access	Very high	Very high	Moderate to high	Low to moderate	Very low
Non-auto travel	Excellent	Very good	Good	Poor	Minimal
Auto mode share	Minimal	10-30% of trips.	60-80%	80-90%	More than 90%
Parking supply	Minimal	Low	Moderate	High	Very high

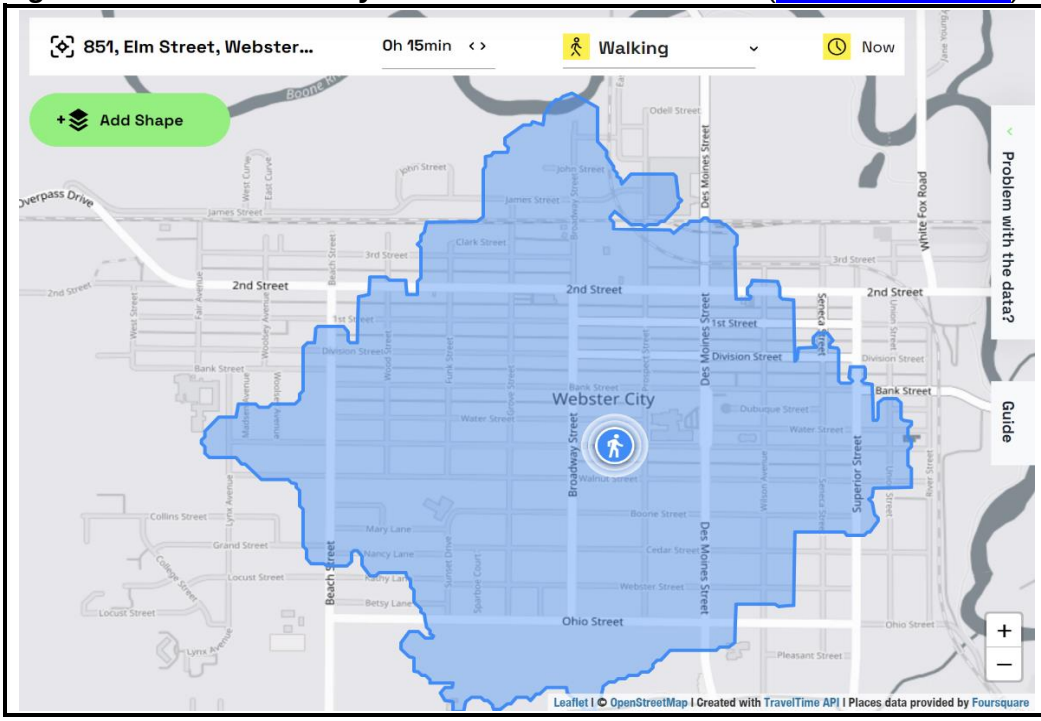
Urban villages are more multimodal than other neighborhood types.

Urban villages are neither new nor unusual. Before 1960, most neighborhoods were urban villages with a central commercial district surrounded by residential streets and amenities such as local parks and schools, with complete sidewalk networks, providing good non-auto accessibility (Mouzon 2025). More recent development practices created automobile-dependent, sprawled communities with low densities, isolated services, high traffic speeds and abundant off-street parking requirements where driving is convenient, but non-auto travel is inefficient, uncomfortable and unsafe. Urban village planning applies more traditional planning practices (AARP and CNU 2021).

Urban villages are not anti-car; they accommodate moderate automobile ownership and use. Not every traveler will take advantage of non-auto options but well-planned urban villages significantly reduce vehicle ownership and trips (Alexander, Alfonzo and Lee 2021). Motorists also benefit from shorter travel distances, reduced risk from other drivers and reduced chauffeuring burdens.

There are many types of urban villages including traditional small towns, urban neighborhoods, "high streets" (walkable commercial districts), and compact suburbs (Cleveland 2023; CUI 2020). Examples are illustrated below.

Figure 1 **Webster City – A Traditional Small Town** (Travel Time Maps)



Webster City, Iowa is a typical small town with 8,000 residents. It has a commercial district with various shops, plus schools, parks and other community amenities.

Nearly the entire town is accessible by walking as indicated by this 15-minute walkshed map.

Not all compact neighborhoods are true urban villages. Small villages have too few services to meet diverse demands. Commercial districts, such as shopping malls, with large parking lots and wide roadways have poor walkability, unattractive public realms and achieve minimal vehicle travel reductions. Dense but isolated developments lack non-auto access. Large master-planned and gated communities, including many retirement and golf communities, and tourist resorts, tend to be expensive, exclusive and automobile-dependent.

Figure 2 **Cook Street Village – A High Street**

Victoria, British Columbia's Cook Street Village has approximately 10,000 residents, plus parks, schools and other amenities within a 15-minute walkshed of a "high street" commercial district (dashed yellow line) that has numerous shops, restaurants and personal services.

This neighborhood includes high-value single-family homes and many moderate-value apartments and condominiums, creating an accessible, mixed-income community.

The image below illustrates sprawl repair: a mall converted into a compact walkable neighborhood.

Figure 3 **Suburban Mall to Urban Village** (Tachieva 2015)

These images illustrate how an automobile-oriented shopping mall surrounded by wide arterials can be converted into a compact, mixed, multimodal urban village where residents can walk to most services.

Urban Village Benefits and Costs

Urban villages can provide many benefits (Ewing and Hamidi 2014; Litman 2023). Compact development minimizes per capita land consumption, reduces the costs of providing public services and preserves habitat. They provide excellent multimodal accessibility which reduces disparities between drivers and non-drivers, reduces transport costs and improves public fitness and health. By encouraging walking and patronage of local services (shops, cafes and restaurants, schools, parks), and by providing an attractive public realm, they improve community cohesion and support local economic activity.

Urban villages provide particularly large benefits to people who cannot, should not or prefer not to drive, which achieves equity goals. They offer people with disabilities (PwD) affordable independent mobility (Cohen 2025; Redelmeier, et al. 2023). This is important because PwD have low average incomes and high poverty rates, and bear high healthcare and transportation expenses (powered wheelchair cost thousands of dollars annually). As a result, PwDs benefit significantly from urban villages that provide convenient and inexpensive access to services and jobs.

Urban village development can increase some costs. It reduces traffic speeds and increases non-auto infrastructure costs. Infill increases some development costs. Density tends to increase congestion intensity although by reducing auto mode shares and travel distances it usually reduces per capita congestion costs. Residents may experience more crowding and have less private greenspace such as private gardens. It increases local but reduces per capita impervious surface area. Social problems such as crime, homelessness and mental illness tend to be more visible, although by increasing affordability, non-auto accessibility and community cohesion these influences can decline overall.

The table below summarizes these impacts. Urban village planning strives to maximize net benefits.

Table 1 **Common Urban Village Benefits** (Litman 2023)

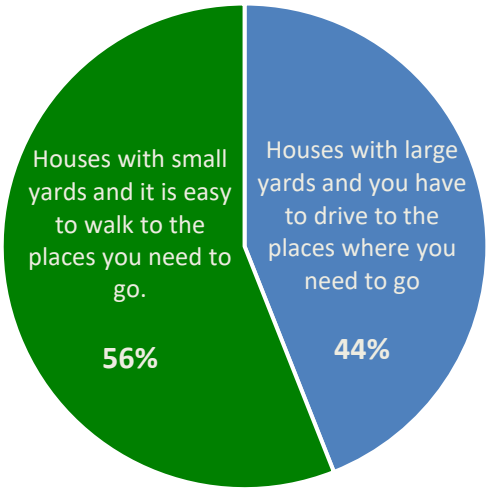
	Economic	Social	Environmental
Benefits	• Reduced costs of providing public infrastructure and services. • Improved accessibility reduces vehicle travel and associated costs. • Agglomeration efficiencies, which increase economic productivity. • Reduced spending on vehicles and fuel leaves households with more money to spend on local goods. • Openspace preservation increases agricultural and recreation industry productivity.	• Increased accessibility and improved mobility options for physically, economically and socially disadvantaged people. • Reduced traffic casualties (injuries and deaths). • Improved public fitness and health. • Increased community cohesion (positive interactions among neighbors). • Reduced chauffeuring burdens.	• More greenspace, increased tree cover and wildlife habitat per capita. • Less impervious surface which reduces stormwater management costs, increases groundwater recharge and reduces heat island effects. • Energy conservation and emission reductions. • Reduced traffic impacts.
Costs	• Higher costs of infill development. • Slower traffic speeds and more intense congestion.	• Smaller homes, more crowding. • Less private greenspace. • More visible social problems.	• Less local greenspace and more impervious surfaces. • More pollution exposure.

Urban villages provide various economic, social and environmental benefits, and increase some costs.

Urban Village Demands

Because urban villages provide direct livability benefits, many people want to live in them. The National Association of Realtor's *Community and Transportation Preferences Survey* show that when choosing a neighborhood, households place high values on sidewalks and places to take walks (84%) and being within an easy walk of shops and parks (79%). Most people would choose an attached or multifamily home located in a compact, mixed neighborhood where it is easy to walk to common destinations over a house with a larger yard located in a sprawled area that requires driving to most destinations, as illustrated below. The preference for walkable neighborhoods grew from 45% in 2015 to 53% in 2023. Other surveys find similar results (Burda 2014).

Figure 4 **Community Preferences Survey** (NAR 2023)



National Association of Realtor surveys indicate that most people prefer a compact home in a walkable neighborhood over a house with a larger yard in a sprawled area.

The preference for urban village locations has increased during the last two decades and is likely to continue growing in the future due to aging population, changing consumer preferences, and rising transportation costs, plus health and environmental concerns.

Many employees, customers and businesses also value urban village locations because they offer diverse services, efficient accessibility and attractive public realms.

Urban village locations are particularly valuable to people who cannot, should not, or prefer not to drive, including people with disabilities, low incomes, adolescents, drivers who lack a vehicle, and people who enjoy active travel (Agnello 2018 and 2020). Typically, 20-40% of individuals are non-drivers, most households have non-driving members, and most people experience periods of non-driving, so most households have good reasons to choose neighborhoods that offer non-auto accessibility.

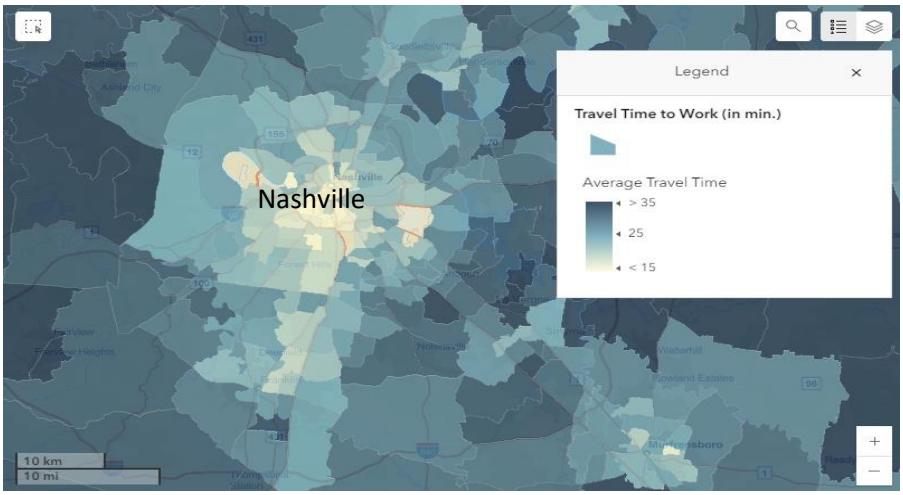
Current demographic and economic trends, including aging population, changing consumer preferences, rising motor vehicle costs, as well as health and environmental concerns, are likely to increase demand for urban village locations and the benefits of serving those demands. Many people want to live in an urban village to be more resilient to a physical disability or economic shock, and to age in place – that is, to continue living in their community as they grow older.

Not everybody is suited to urban village living. Some households want big yards for gardening or large pets, fear cities or are antisocial. However, some of the reasons that households choose sprawl over compact neighborhoods can be replicated in urban villages by improving their perceived school quality, security or social status.

Evaluating Urban Village Accessibility and Affordability

Because they are compact and multimodal, urban villages provide a high level of affordable accessibility. Urban village residents usually have better non-auto access than that of suburban motorists at a fraction of the costs. There are several ways to illustrate this. The figure below heatmaps commute duration for Nashville, TN, a typical American city. Central neighborhood workers spend far less time commuting than those who live in outer suburbs even though they rely more on slower modes and face more intense traffic congestion, demonstrating that proximity affects travel times more than speed (Levine, et al. 2012). Other studies find urban residents spend less total time travelling to all types of destinations than residents of suburban and exurban areas (Millward and Spinney 2011).

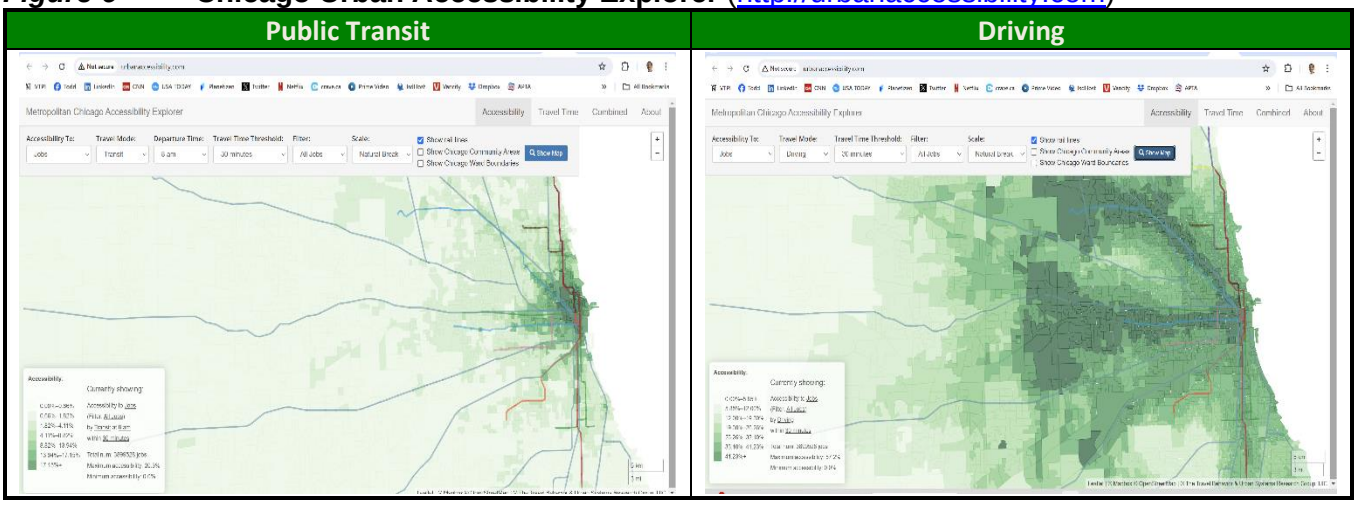
Figure 5 **Commute Duration** (Mineta Institute Commute Duration Dashboard)



Average commute durations (minutes per commute) are generally much shorter in central multimodal neighborhoods, which can be considered urban villages, than in automobile-dependent suburbs. This figure illustrates this effect in Nashville, Tennessee. Similar patterns are seen in most urban regions.

The *Urban Accessibility Explorer* measures the number of jobs or services accessible by various modes in the Chicago region. Central neighborhood residents can access more jobs by non-auto modes (dark green in core areas) than suburban residents can access by driving (light green in outlying areas).

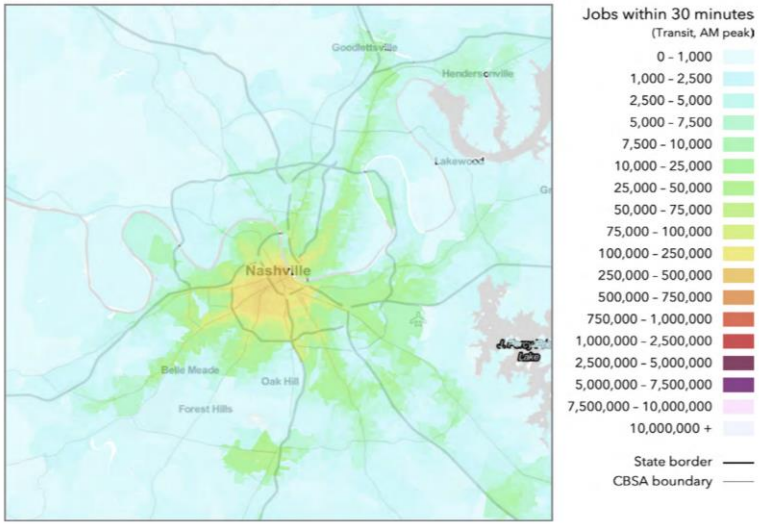
Figure 6 **Chicago Urban Accessibility Explorer** (http://urbanaccessibility.com)



These maps compare the number of jobs accessible within 30 minutes in the Chicago region. Central area transit commuters can access more jobs (dark green) than most suburban motorists (light green), with far lower costs.

Access Across America measures the number of services and jobs accessible within given time periods by various modes in US regions. The heatmap below shows that central Nashville transit services can access more than 100,000 jobs in 30 minutes, which is more than driving can reach in many suburban areas.

Figure 7 **Nashville Transit Job Access Map** (Access Across America 2023)

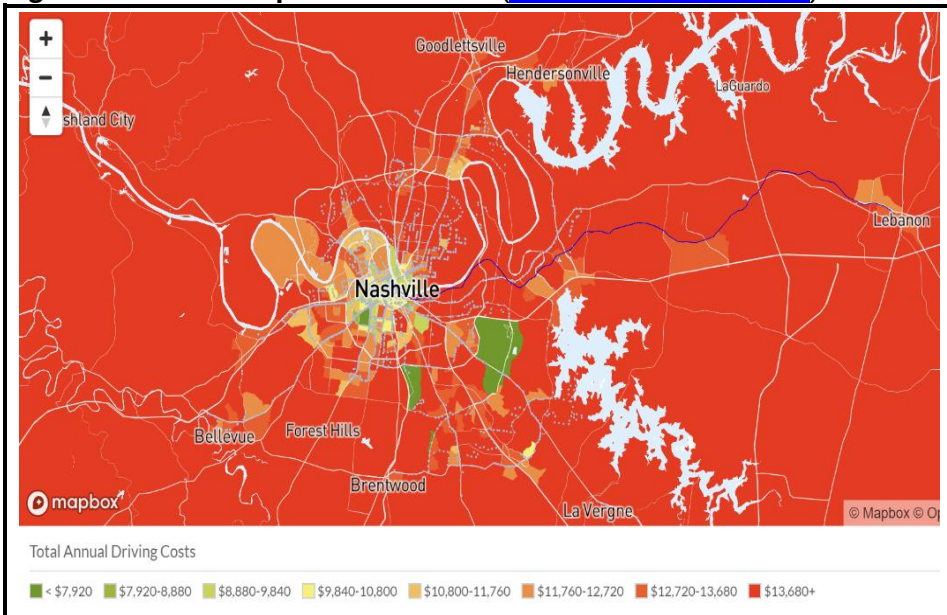


The Access Across America program measures the number of jobs reachable by various modes in major US metropolitan areas. This heatmap shows the number of jobs accessible by public transit for neighborhoods in the city of Nashville.

Central neighborhood residents can access more than 100,000 jobs by transit in less than 30 minutes.

The heatmap below shows how household transportation expenditures vary by location in the Nashville region. Households in central urban neighborhoods and small towns spend much less on transportation than in suburban and exurban areas. This indicates that central, multimodal locations provide the best accessibility at the lowest cost, and the least disparities of access between drivers and non-drivers.

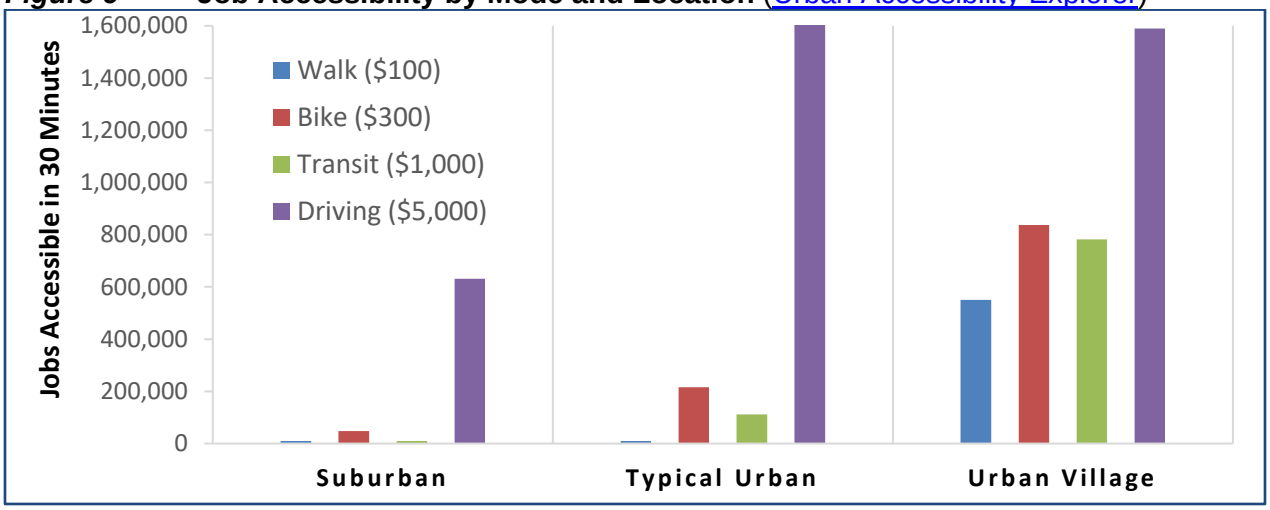
Figure 8 **Transportation Costs** (H&T Affordability Index)



This Housing and Transportation (H&T) Affordability Index map shows that transportation costs are much lower (green and yellow) in central urban neighborhoods and small towns than in most suburban and exurban areas where households spend more than 20% of their budgets on transport (red).

The figure below compares the number of jobs accessible by four modes from typical suburban areas, urban neighborhoods and urban villages. In suburban and urban areas non-drivers can access far fewer jobs than drivers. Because they are compact and mixed, urban villages improve access by all modes, particularly non-auto modes, with far lower annual costs (indicated in parenthesis). In these ways, urban villages reduce disparities in accessibility between drivers and non-drivers, and between rich and poor.

Figure 9 **Job Accessibility by Mode and Location** (Urban Accessibility Explorer)



This figure compares the number of jobs accessible by four modes from typical suburban, urban neighborhoods and urban villages. Urban villages reduce disparities between drivers and non-drivers, and rich and poor.

This measures total jobs not individuals' employment opportunities; most workers are most suited to a limited range of jobs and a typical job is only available every few years so workers need thousands of jobs and employers need tens of thousands of workers within convenient commute distance for optimal economic performance. This helps explain why economic productivity and mobility (the likelihood that children in lower-income households become more economically successful as adults) tend to increase with density and multimodal accessibility; large numbers of jobs and workers allow better matches between workers' abilities and employers' needs. For that reason, *high-accessibility* neighborhoods can also be considered *high-opportunity* neighborhoods. Below are key conclusions from this analysis:

- In rural and suburban areas non-drivers can access relatively few services and jobs. There may be a café or fast-food restaurant, barber- or beauty shop, or a small convenience store within walking or bicycling distance, but their variety and quality are usually limited.
- Urban locations offer non-drivers orders of magnitude better access (typically tens of thousands of services and jobs within a 30-minute trip) and much lower travel costs than in rural and suburban areas.
- In suburban areas, bicycling, including e-bikes, can provide better accessibility than walking or public transit. Taking advantage of this potential requires planning to make bicycling safe and convenient.

This analysis shows once again that accessibility depends more on location than on traffic speed. Urban village locations provide far better access to services and jobs than virtually any increase in travel speed that transportation agencies can provide by roadway expansions or traffic signal synchronization.

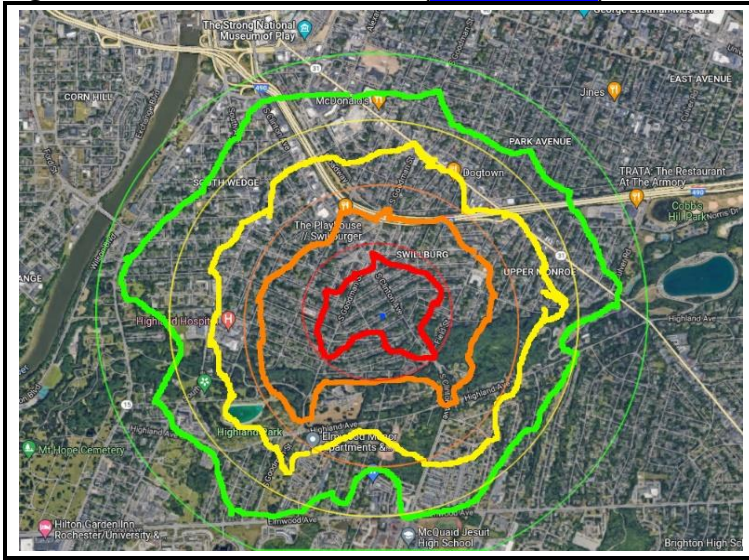
Urban Village Planning Guidance

This section describes factors to consider in urban village planning and provides targets for optimization.

Area

An urban village's area reflects a *walkshed*, the area people normally walk for errands. People typically walk about three miles per hour (mph). Motorists will typically walk 5-10 minutes, up to about a half-mile, and non-drivers about twice that, for errands. The figure below shows typical walksheds.

Figure 10 **Walk Isochrons** (Joseph 2022)



Motorists (people who can drive and have a vehicle available) will typically walk 10 minutes and non-drivers about 20 minutes for errands before they shift mode or destination. These distances define urban village areas.

This map illustrates 5, 10, 15 and 20 minute walksheds for a Rochester, New York neighborhood. The lines are called isochrons. Since most people walk about 3 mph, these isochrons are typically about a quarter-mile apart, or less where sidewalks and streets are disconnected.

This indicates that with good walking conditions (good sidewalks and crosswalks, low traffic speeds, level terrain, etc.) an urban village has up to a one-mile diameter, totaling about 500 acres, and less if constrained by incomplete sidewalks, or barriers such as busy roadways, rivers and hills (Plater-Zyberk 2024). Seniors, young children and people with disabilities (PwD) tend to walk shorter distances resulting in smaller walksheds (Agnello 2018 and 2020). Bicyclists typically travel about 10 mph, and e-bikes and public transit travel about 15 mph, so urban village areas can expand by improving bicycling and public transit. This helps define optimal urban village densities and mix (Knight Frank 2020). To maximize livability most homes should be located within a half-mile of commonly-used services, with shorter distances for seniors, young families and PwD. To achieve a critical mass of customers, businesses and service providers want sufficient customers and clients within these distances.

Care is needed when defining densities, as summarized in the box to the right. New analysis tools such as Travel Time Maps, the Urban Accessibility Explorer, and Walk Score can generate maps showing the area or number of people and services accessible within a given time period by various modes, providing more detailed guidance for specific areas.

Densities Compared (Forsyth 2003)

Measurement	Acres		Hectares	
	Homes	***People***	***Homes***	***People***
Site (net or parcel)	10	25	25	63
Block	8	20	20	50
Neighborhood	6	15	15	38
Municipality	4	10	10	25
Region	3	5	8	13

Densities can be calculated using various measurements. Site only considers the developed parcel. Block includes road rights of way around the site. Neighborhood, municipality and regional measures consider additional land areas.

Services

Urban villages need diverse services, such as those listed below, that serve the demands of local residents and workers (Caldwell (2024). The more services a village contains, the more demands it can satisfy, the more vehicle travel it can reduce and the more savings and benefits it can provide.

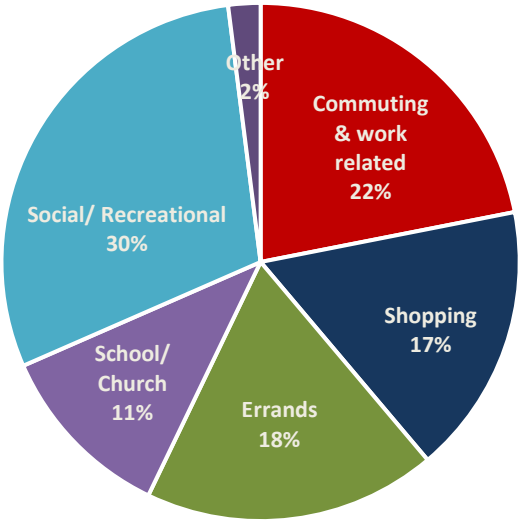
Table 3 **Commonly Used Services**

Retail	Professional	Activities
Grocery stores	Daycare center	Schools
Pharmacies	Medical clinic	Religious institutions
Clothing	Dentist and optometrist	Parks and recreation centers
Restaurants, cafes and pubs	Hairdresser and barber	Community center
Specialty stores (hardware, pet, etc.)	Legal services	Social service agencies
Discount and consignment stores	Banking and investment	Entertainment (theaters, music, etc.)

Urban villages should contain as many of these services as possible in order to satisfy diverse demands.

Most personal trips (78%) are for shopping, errands, school and social/recreational, and some workers commute to local jobs. This indicates that urban villages with diverse services can satisfy most trips internally, minimizing vehicle travel. Automobile-owing residents may still drive to other services, such as regional shopping centers, but less frequently than from neighborhoods with fewer services.

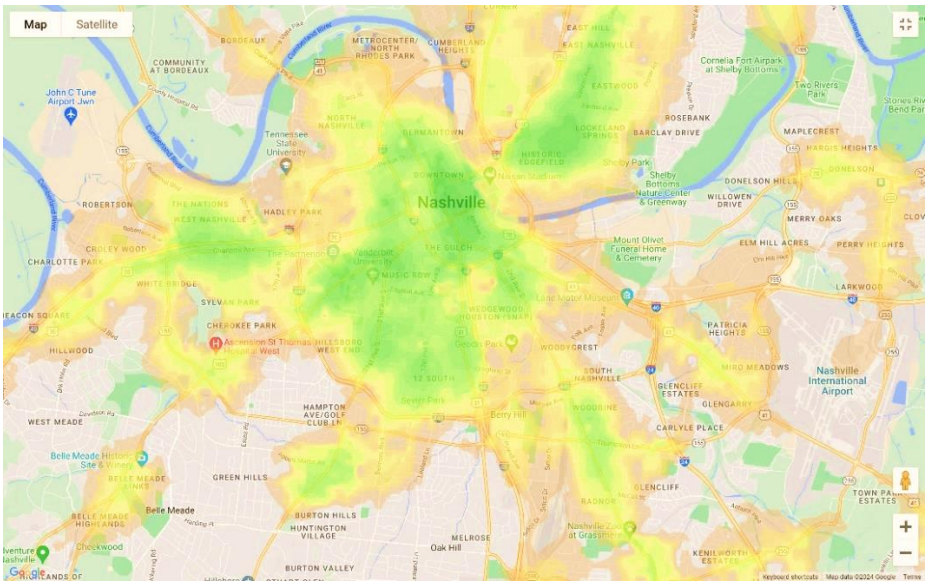
Figure 11 **Personal Trip Purposes** (2022 NHTS)



According to the US National Household Travel Survey in 2022 only 22% of personal trip are for commuting or work; the rest are for shopping, errands, school, church or social/recreational. Even if most workers must commute outside their neighborhoods, most trips can be satisfied locally if a neighborhood contains the services that people demand including shops, cafes and restaurants, personal and professional services, and schools.

Walk Score is a good indicator of access to commonly-used services. The following heatmap shows these ratings for Nashville. Green indicates a Score over 70, which means that most services are accessible by walking. These areas can generally be considered urban villages, although this is an imperfect indicator since Walk Score only indicates proximity to services, it does not account for other walkability factors such as the quality of sidewalks and crosswalks, or hills.

Figure 12 **Region Walk Score** (www.walkscore.com)



Walk Score indicates proximity to commonly used services such as shops, restaurants and parks. Green indicates areas with Walk Score over 70, which means that most services are available within walking distance so it is possible to live car-free. These can be considered urban village

An important urban village anchor is a supermarket, a full-service grocery store that includes a bakery, deli, ethnic, organic and discount foods. These tend to be more convenient and affordable than smaller stores and so are particularly helpful to people who have limited mobility and time.

Special planning may be required to ensure that urban villages satisfy the needs of various groups, as summarized in the follow table.

Table 4 **Special Planning Considerations** (Agnello 2018 and 2020; NACTO 2020)

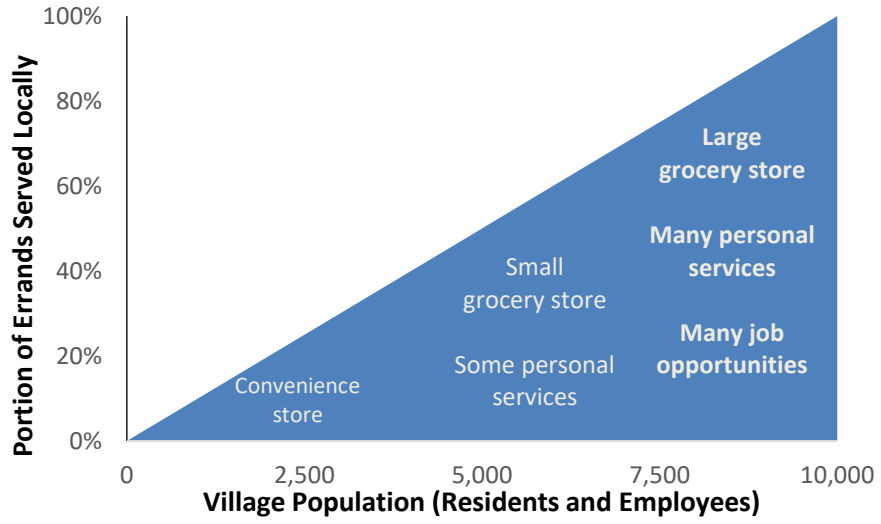
Group	Housing	Transportation	Other Considerations
People with disabilities (PwD)	Universal design	Walkability and scooters. Universal design. Suitable parking.	Specialized healthcare and recreation.
Seniors	Universal design	Walkability. Universal design.	Specialized healthcare and recreation.
Pet owners.	Pet-friendly housing.	Safe sidewalks.	Pet-friendly parks and businesses.
Families with children	Larger homes.	Walkability. Suitable parking.	Local parks and schools.
Adolescents	Larger homes, private rooms	Multimodal.	Recreation facilities.
Low income	Affordable housing. May require social housing.	Affordable travel.	Affordable stores and services.
Students	Affordable rental housing.	Multimodal.	Youth activities.

Inclusive planning should respond to the needs of various groups.

Population and Housing Targets

Urban villages need enough customers to support diverse services within their walkshed. A small grocery or convenience store typically requires at least 2,500 customers, and a supermarket requires several times more (Bailey 2010). A small urban village with less than 2,500 residents and workers can typically support a convenience store, a few restaurants, and some personal services such as a barber shop and hairdresser. A large village can support a full-service supermarket, diverse personal services, an elementary school and many jobs, creating a complete community, although smaller villages may support more diverse services if residents and employees have higher than average incomes or they attract many non-local customers, such as a market town that serves a large rural area (Serra 2024).

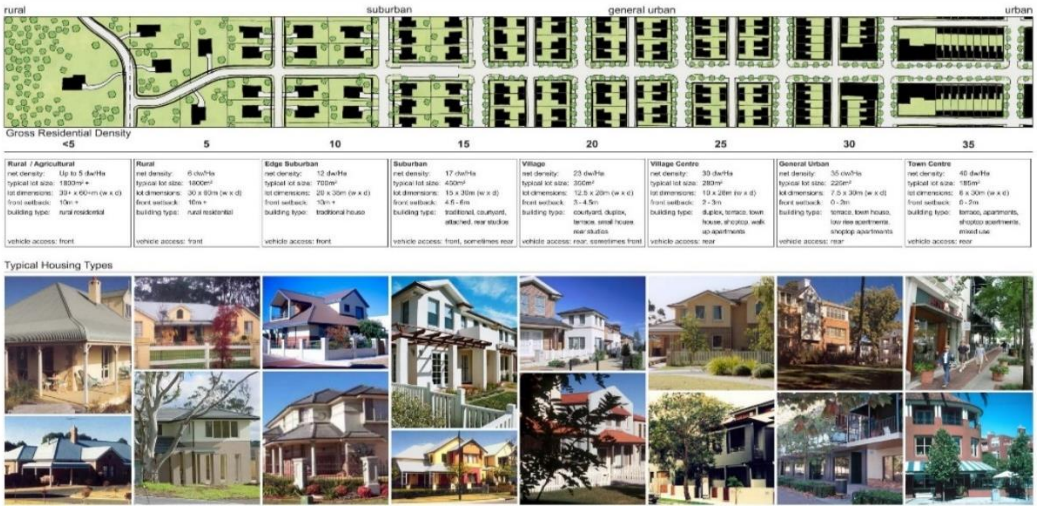
Figure 13 **Portion of Errands Performed Locally**



As a village's population increases so do the number of services and activities it can support, and therefore the portion of errands that can be accomplished locally. Some major services, such as a full-service supermarket, require about 10,000 customers. A village with that population can be self-contained for most services and many jobs, minimizing automobile travel.

A typical walkshed contains about 500 gross (total area) acres, but a portion is used for roads, parks and other public facilities, leaving 250-350 net (buildable land) acres for residential and commercial uses. Housing 10,000 residents on 300 acres average about 33 people or 15 homes per acre.

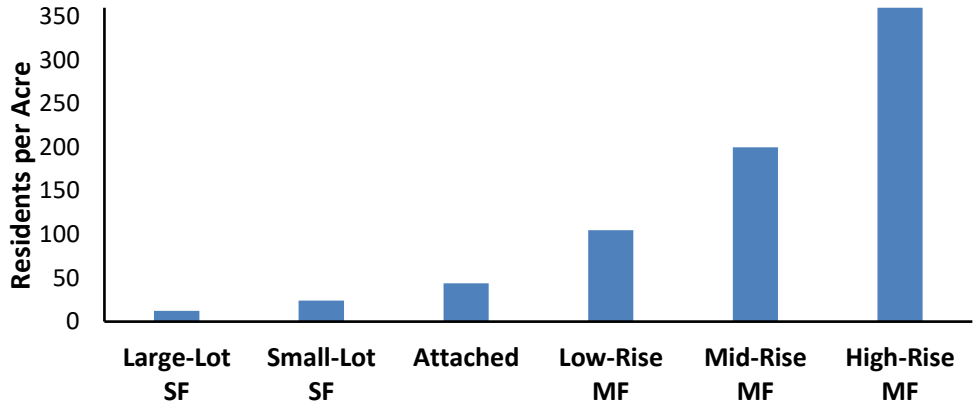
Figure 14 **Densities of Housing Types** (Landcom 2022)



Denser development requires more compact housing types. Most urban villages require a mix of single, attached and multi-family housing to achieve density, accessibility and affordability goals.

The figure below shows typical densities by housing type. As a village's population increases its housing must become more compact (Bengford 2017). In smaller villages (less than 5,000 residents) most housing can be single-family. In medium-size villages (5,000-10,000 residents) up to half of homes can be single-family. In larger villages (more than 10,000 residents) most housing should be attached or multifamily, but since single-family homes have more average occupants, if a third of homes are single-family they accommodate about half of residents (NMHC 2022). Since multifamily housing requires relatively large lots, governments may need to facilitate land assembly, by expropriation if necessary. This is an alternative to expropriating lands for roadway expansions that would be required by more sprawled, automobile-dependent development.

Figure 15 **Typical Housing Densities**

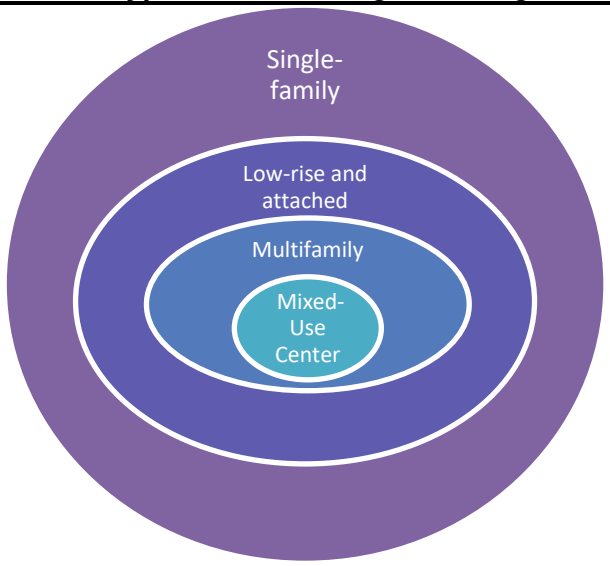


This figure shows typical residents per acre for various housing types.

(SF = Single Family; MF = Multi-Family; Attached = Duplexes and Townhomes)

A typical urban village has a 10-20 acre core with mid- and high-rise mixed commercial and residential buildings, surrounded by 20-50 acres of mid-rise and attached housing, and 150-250 acres of attached and small-lot single-family, many of which have secondary suites. Because urban villages reduce vehicle ownership and use they can minimize the area used for roads and parking, leaving more for greenspace.

Figure 16 **Typical Urban Village Housing Distribution**



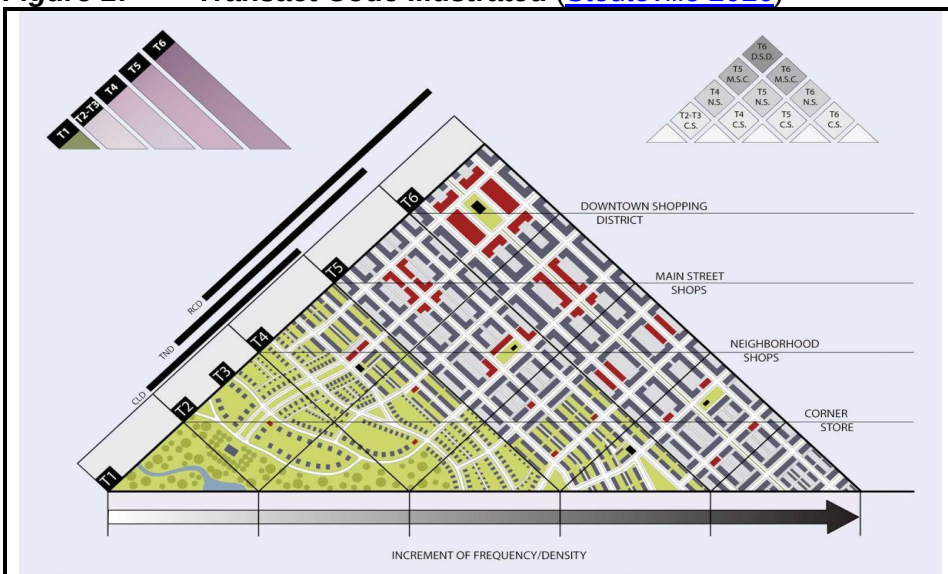
A typical urban village has a core of mixed commercial and residential buildings surrounded by rings of multi-family, attached (duplexes and townhouses), and single-family homes, many of which can include secondary suites.

To accommodate 10,000 or more residents in a 15-minute walkshed, at least half of housing units should be attached or multifamily. These need not be high-rise; in most cases low- and mid-rise multifamily can provide sufficient density.

Urban Form

Urban form (also called *built form* or *urban design*) refers to various physical design features including the dimensions of streets, parcels and blocks, and the location and design of parks. The *transact* defines the optimal urban form for various land use conditions ranging from rural and suburban to small towns and large cities, as illustrated below.

Figure 17 **Transact Code Illustrated** (Steuteville 2020)



The Transact Code defines design features and requirements for various conditions ranging from rural to city centers.

Urban villages are relatively dense and multimodal and so have T5 and T6 design requirements.

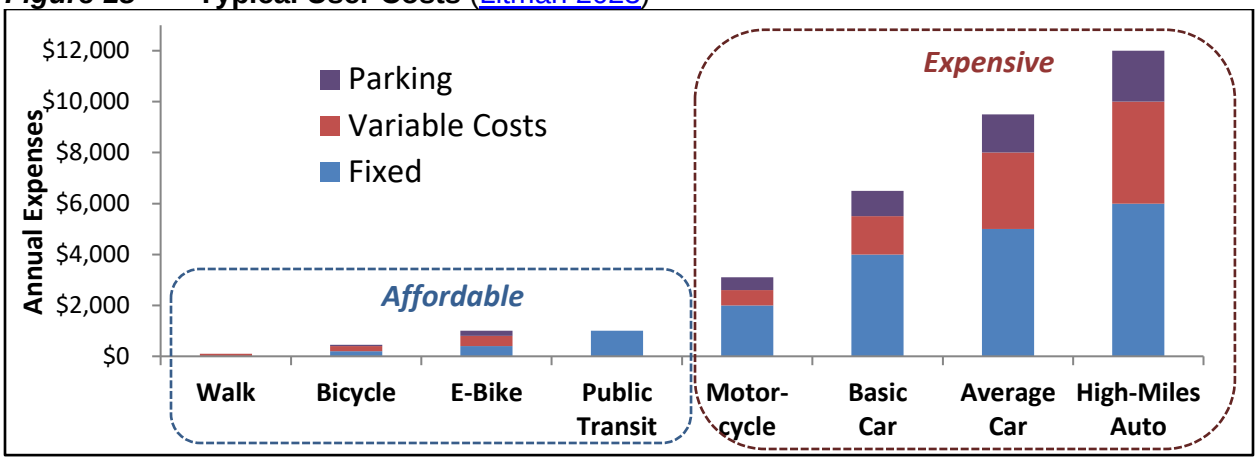
Below are key design recommendations (Alexander, et al. 1977; Knight 2023).

- Neighborhood streets should be 30-60 feet wide. They should be designed for convenient and safe walking, with complete sidewalk and crosswalk networks, and traffic speeds limited by design, regulation and traffic calming features. Where possible, city streets and blocks should have pedestrian shortcuts so walking and bicycling are more direct and faster for many trips.
- Streets should be a dense grid, or modified grid with some intersections off-set to limit traffic speeds.
- City blocks should generally be rectangular with sides greater than 200 feet and less than 600 feet, and perimeters less than 1,800 feet. They should have 10-20 feet wide alleys for utility access.
- Streets and blocks should be designed to accommodate geography, topography, solar orientation and features such as rivers and shorelines.
- Urban parcels should generally be rectangular and range from 30-100 feet wide and 80-120 feet deep, with larger parcels for multifamily and commercial buildings. Where densification is desired there should be a land assembly mechanism to create sufficiently-large parcels in appropriate areas.
- Buildings should be oriented to the street, with attractive entrances that connect to sidewalks instead of parking lots in front of buildings.
- Sidewalks should be sufficiently wide and clear, reflecting universal design principles.
- Curbs should be managed to prioritize higher-value uses including loading zones, bus stops, bike- and bus-lanes, and short-term parking.
- Streets should be shaded by trees and sidewalks should be setbacks behind planting strips.

Affordability

Affordability refers to households' ability to purchase essential goods. It was previously defined as households spending less than 30% of their income on housing, but since households often make trade-offs between housing and transportation costs many experts now define as spending less than 45% of household budgets on housing and transportation combined (CNT 2023). This recognizes that a cheap house is not truly affordable if it is located where transport is expensive, and households can rationally spend more on housing to live in accessible areas with lower travel costs. Walking, bicycling and public transit are much more affordable than automobile travel, as illustrated below.

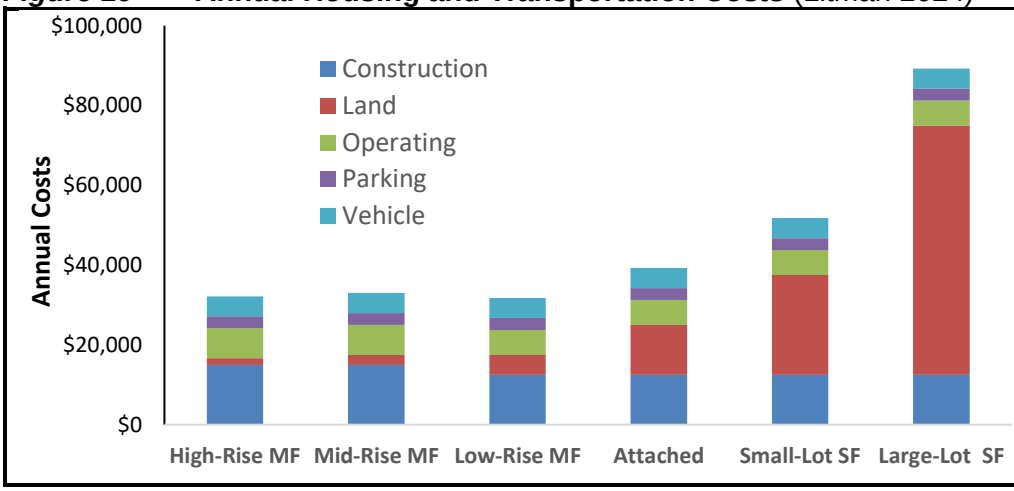
Figure 18 **Typical User Costs** (Litman 2023)



Walking, bicycling, e-bikes and public transit are much more affordable than automobile travel.

Mid-rise multifamily housing with unbundled parking tends to be the lowest cost housing type, and if located in an urban village with low travel costs, tends to be most affordable overall, as illustrated below. To maximize affordability, urban planning should favor lower cost travel modes and housing types, and ensure that any household that wants can find suitable housing in a high-access urban village.

Figure 19 **Annual Housing and Transportation Costs** (Litman 2024)

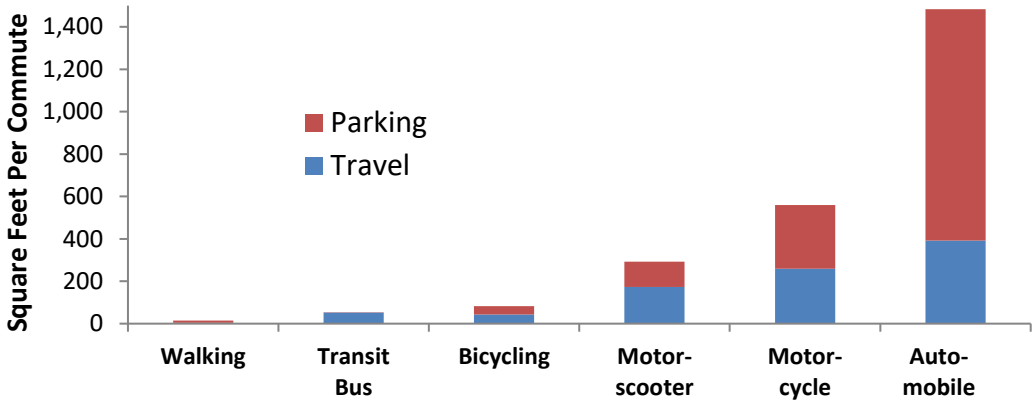


Considering land, construction, operating, parking and vehicle costs, the most affordable housing is low-rise multi-family with unbundled parking (rented separately from housing) located in an urban village where transport costs can be minimized.

Transportation Targets

Urban villages both allow and require low automobile traffic. Urban villages tend to reduce per capita vehicle ownership and use by increasing proximity and non-auto travel options, and by reducing traffic speeds and free parking. Because automobiles are expensive, space-intensive (see figure below) and impose large external costs, their optimal mode shares decline as areas become more compact, multimodal and affordable. For example, if a neighborhood's population density doubles, per capita vehicle ownership and use should decline by half to prevent increasing traffic and parking problems.

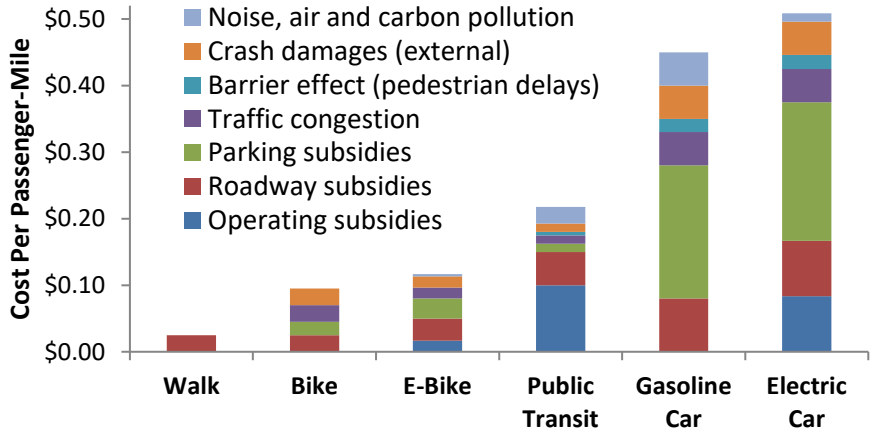
Figure 20 **Space Required by Travel Mode** (Transport Land Requirements Spreadsheet)



Automobile travel requires far more space for travel and parking than other modes.

Because they are larger, faster and more energy-intensive than other modes, automobiles tend to impose greater external costs, as illustrated below. This is inefficient and unfair. For example, it is inefficient that buses are delayed by congestion caused by automobiles, unfair that pedestrians and bicyclists bear risks imposed by motor vehicles, and unfair that communities bear costs caused by non-resident motorists. These impacts increase with density and transportation system diversity, and so are particularly severe in compact and multimodal urban villages. As a result, to maximize livability and fairness, urban villages should limit automobile traffic volumes and speeds, including electric cars, and favor resource-efficient modes that require less pavement and impose less risk, noise and air pollution.

Figure 21 **External Costs by Mode** (Litman 2021)

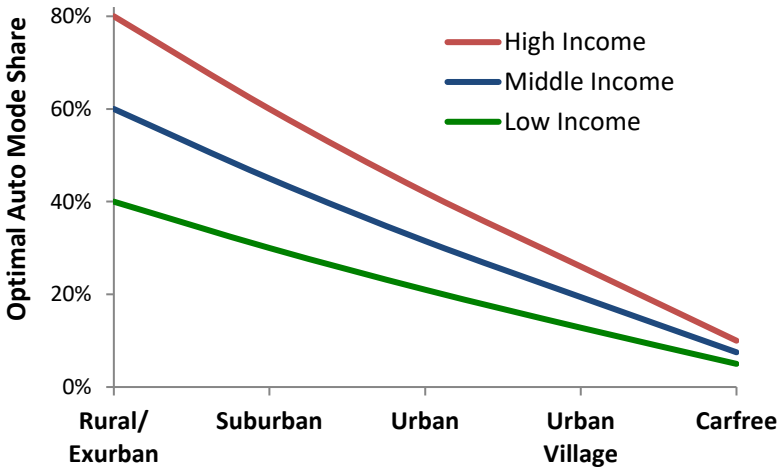


This figure compares estimated external costs of six modes including pollution emissions, crash risk, barrier effect, traffic congestion, plus road, parking and operating subsides.

Automobile travel imposes the largest external costs. Many of these are particularly large in denser urban areas.

For efficiency and fairness sake, urban villages should have 15-25% automobile mode shares.

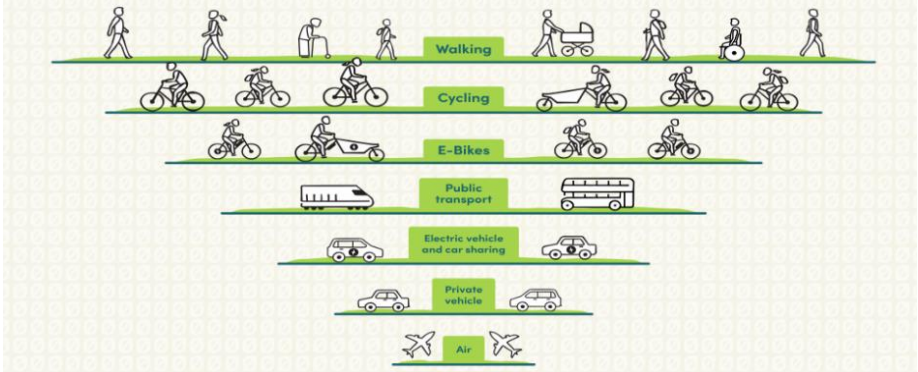
Figure 22 **Optimal Automobile Mode Shares**



Because automobiles are expensive, space intensive, dangerous, noisy and polluting, their optimal mode shares decline with density and poverty. In affluent suburbs, more than half of trips can be made by automobile, but this should decline with density and poverty, and in urban villages only 15-25% of total trips should be by automobile.

To achieve these targets urban village planning applies a sustainable transportation hierarchy which prioritizes affordable and resource-efficient modes, as illustrated below.

Figure 23 **Sustainable Transportation Hierarchy** (Action Net Zero)



Urban village planning applies a sustainable transportation hierarchy which favors affordable and resource-efficient modes. This inverts conventional planning priorities.

This requires planning and funding reforms. Currently, most road space and infrastructure spending is devoted to automobile facilities, including roadways and government-mandated off-street parking, with much less investment in sidewalks, bikeways and public transit. Urban village planning should invest as much in non-auto modes and transportation demand management (TDM) as needed to achieve targets. For example, if the target is for half of all trips to be made by active modes, it is fair and efficient to invest up to 50% of road space and transport infrastructure funds on sidewalks, bikeways, bike parking and active mode encouragement programs.

The following describes specific urban village transportation planning practices and targets.

Active Travel (Walking, Bicycling and Variants)

Active modes (walking, bicycling and variants including travel by wheelchair, scooter and handcart) play unique and important roles in urban villages. Active modes are affordable, inclusive (virtually everybody uses them), space efficient, impose minimal external costs, and support other efficient travel options. For example, since transit passengers walk or bicycle to and from stops and stations, walkability improvements support transit travel. Since motorists often walk between parked vehicles and destinations, walkability improvements can expand the range of parking spaces that serve destinations, increasing motorists' convenience and parking efficiency, so fewer parking spaces are needed to serve motorists' needs. As a result, urban villages need excellent walkability and bikeability (Guzman, Oviedo and Cantillo-Garcia 2024; ITF 2023).

Because e-bikes and electric scooters are faster, can carry heavier loads and can easily climb inclines, they can significantly increase bicycle mode shares. If previous analysis predicted that 10% of local trips could be made by bicycle, then e-bikes and -scooters can double this to 20%, provided that they have suitable facilities including lanes, paths and parking facilities.

Universal design means that transportation facilities accommodate diverse users including travellers with disabilities, hand carts, wheeled luggage, strollers, children and pets. This requires that walkways be sufficiently wide and smooth to accommodate these users, with features such as ramps and lifts where needed. Universal design requires high quality design, maintenance, and enforcement of rules against encroachment. To ensure that facilities truly meet users' needs, transportation agencies can train and hire wheelchair users to be universal design planners and inspectors. It is infeasible to provide universal design compliant pedestrian facilities on all roads, but such facilities can be efficiently provided in urban villages due to their compact nature and high pedestrian travel demand.

New tools can evaluate active travel conditions, identify problems and prioritize improvements. To maximize active travel, urban villages should have complete sidewalk and crosswalk networks, bikeways on most arterials, mixed-use trails where appropriate, safe traffic speeds (generally less than 20 miles per hour), secure bike parking, bikesharing services, plus signage, education and enforcement to protect pedestrians and bicyclists on sidewalks, shared paths and roads. In hot and cold climates, walking facilities should be designed to protect pedestrians from extreme temperatures.

Public Transit, Taxi/Ridehailing and Carsharing Services

Urban village planning supports and is supported by high quality public transit, taxi/ridehailing and carsharing services. These modes help reduce automobile trips directly and their availability can allow some households to reduce their vehicle ownership which leverages additional vehicle travel reductions. Where possible, urban villages should be transit-oriented developments: compact, mixed and walkable neighborhoods built around rail stations or the intersection of multiple bus lines.

Public transit can be improved and encouraged with increased service, dedicated bus lanes which give buses priority in traffic, nicer stations and vehicles, lower fares and more convenient payment systems, better user information, amenities such as on-board internet access, and ridership incentives such as parking cash out (non-drivers receive the cash equivalent of parking subsidies provided to motorists). These improvements can integrate taxi/ridesharing and carsharing, for example, with Mobility as a Service (MaaS) information, payment and promotion systems.

Complete Streets and Connected Roadways

Complete streets are designed to accommodate diverse users and uses including people with mobility impairments, pedestrians, bicyclists, and transit travel, plus activities such as sidewalk cafes and play areas where appropriate (Schlossberg, et al. 2013). *Roadway connectivity* refers to the density of roads and intersections. A well-connected network of lower-speed roads allows more direct travel between destinations which supports multimodal transportation, in contrast to a hierarchical network with many dead-end roads that connect to a limited number of high-speed arterials and highways.

Infill Versus Roadway Expansions

To maximize accessibility some jurisdictions, such as Langford, British Columbia, use eminent domain to assemble parcels needed for compact infill. Property owners generally accept government offers, but municipalities can expropriate land if needed. This is an alternative to assembling and expropriating land for roadway expansions to accommodate more urban fringe development.

Transportation Demand Management (TDM)

Transportation Demand Management (TDM) refers to various planning practices and incentives that encourage travellers to use the most efficient option for each trip. This is necessary to achieve urban village transportation targets. These tend to have synergistic effects – they become more efficient and socially acceptable if applied together – and so should be implemented as an integrated program that includes both positive and negative incentives. Such programs typically reduce affected vehicle travel by 30-60%, and sometimes more (Galdes and Schor 2022). The table below lists various TDM strategies.

Table 5 **Transportation Demand Management Strategies** (Litman and Pan 2023)

Improves Transport Options	Incentives to Use Efficient Options	Smart Growth Policies	Implementation Programs
Active mode (walking and bicycling) improvements Public transit improvements High occupancy vehicle (HOV) priority Taxi & ridehailing improvements Car- and bikesharing Guaranteed ride home Telework and flextime	Commuter financial incentives (parking cash out, transit subsidies, etc.) Efficient parking pricing Efficient road pricing Fuel and carbon taxes Vehicle taxes and fees Distance-based insurance and registration fees	Complete streets Smart Growth/New Urbanism/Transit Oriented Development Reduced parking requirements and efficient parking management Streetscaping Traffic calming	Commute trip reduction programs Freight transport management Mobility man. marketing School and campus travel management Tourist transport management

TDM includes various strategies. They are most effective if implemented as an integrated program.

TDM can provide large impacts and benefits (Lee, et al. 2022). Households in compact multimodal neighborhoods own about half as many vehicles and generate about half as many vehicle trips as regional averages (Arrington and Sloop 2009; Schneider, Handy and Shafizadeh 2014). The study, *Don't Underestimate Your Property: Forecasting Trips and Managing Density over the Long Term*, found that residential and commercial developments with TDM programs generate 63% fewer trips than standard models predict. As one engineer explained,

> "Overestimating trip generation can have deleterious effects on a neighborhood because trip generation is so closely linked to the amount of square footage that a property is allowed. More than any other feature of a development, vehicle trip generation estimates determine density limits and impacts." (Mike Workosky, traffic engineer and President of Wells + Associates)

Impervious Surface Area and Tree Cover

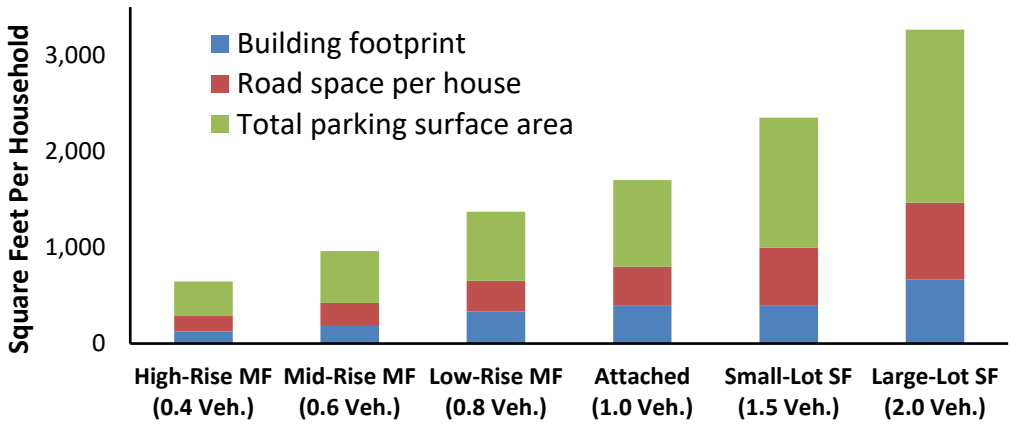
Impervious surface refers to land covered by buildings and pavement that prevents water percolation. It increases stormwater management costs and heat island effects (increased ambient temperatures in built-up areas), displaces greenspace, and tends to be unattractive. As densities increase, impervious surface tends to increase as a portion of land area but declines per capita. Automobile-oriented urban centers often devote more than half their land to roads and parking lots, as illustrated below.

Figure 24 **Land Used for Roads and Parking** (parkingreform.org/resources/parking-lot-map)

This map illustrate the portion of land devoted to roads (grey) and parking (red) in Kansas City, a typical U.S. city. Similar maps are available for other cities. By reducing ownership and trip generation urban village planning can significantly reduce per capita impervious surface area, reducing costs and creating more comfortable and attractive communities.

Urban villages can reduce impervious surface area by favoring compact housing types, reducing vehicle ownership and use and therefore road and parking supply, and allowing more efficient parking management. The figure below compares impervious surface area for various households. A typical urban household with a compact home and low vehicle ownership generates less than a quarter of the impervious surface area as typical suburban households. Impervious surface impacts can be reduced with policies that encourage compact buildings with green roofs, reduce vehicle ownership and use, minimize road and parking area, encourage on-site water percolation and maximize greenspace and tree canopy. Typical urban village goals are less than 60% impervious surface area and at least 40% tree cover (Leff 2016; McDonald, et al. 2024; Wu, Yu, and Oueslati 2023).

Figure 25 **Impervious Surface Area by Housing Type and Vehicle Ownership** (Litman 2021)



Urban village residents require far less impervious surface due to more compact housing and less vehicle ownership (indicated in parenthesis) which reduces road and parking needs.

Parking and Curb Management

Urban village planning often involves trade-offs between parking supply and livability goals including affordability, walkability and local environmental quality (Wiersma and Bertolini 2024). Urban villages allow and require more efficient parking management. Urban villages reduce automobile ownership and use, and allow parking facilities to be shared so fewer spaces are needed to serve demands.

Most communities currently mandate abundant off-street parking and provide unpriced on-street parking on many streets (https://parkingreform.org). Typical North American communities have two to five government-mandated off-street parking spaces per capita, including many that are seldom used (Scharnhorst 2018). With better management this can be significantly reduced. The table below lists parking management strategies suitable for urban villages. If optimally applied, these strategies can reduce urban village parking needs 70-90% compared with current mandates. Many of these strategies also reduce vehicle traffic and associated costs, increasing their benefits.

Table 6 **Parking and Curb Management Strategies** (Litman 2021)

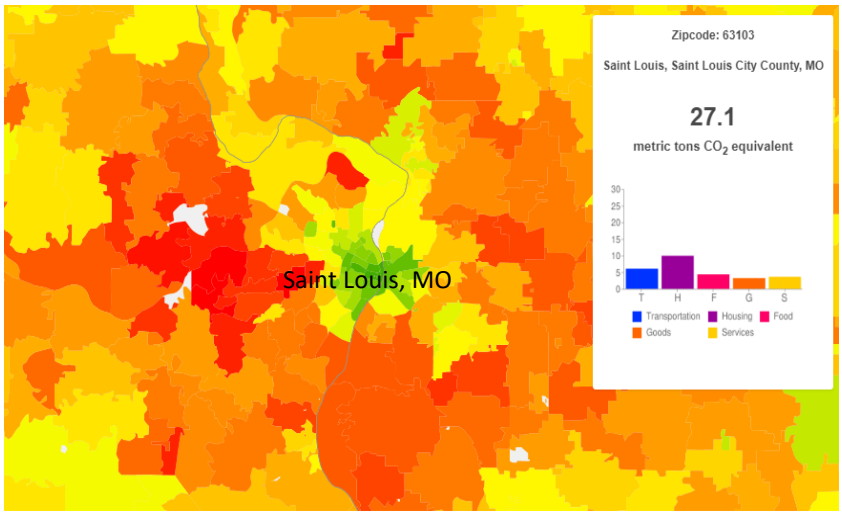
Strategy	Description	Typical Reduction	Traffic Reduction
Shared parking	Parking spaces serve multiple users and destinations.	10-30%	
Prioritization	Favor higher-value use such as service vehicles, deliveries, customers, quick errands, and people with special needs.	10-30%	
More accurate and flexible minimums	Adjust off-street parking requirements to more accurately reflect demand in a particular situation.	40-80%	
Parking maximums	Establish parking maximums.	10-30%	
Remote parking	Provide off-site or urban fringe parking facilities where appropriate.	10-30%	
Walking and bicycling improvements	Improve walking and bicycling conditions to expand the range of destinations serviced by a parking facility.	5-15%	✓
Increase capacity	Use otherwise wasted space, smaller stalls, and car stackers.	5-15%	
TDM	Encourage vehicle travel reductions and shifts to non-auto modes.	10-30%	✓
Efficient pricing	Charge motorists cost-recovery fees for using parking facilities.	10-30%	✓
Improve pricing methods	Use better charging techniques to make pricing more convenient and cost effective.	Varies	✓
Financial incentives	Provide financial incentives to shift mode such as parking cash out.	10-30%	✓
Bicycle facilities	Provide bicycle storage and changing facilities.	5-15%	✓
Improve information and marketing	Provide convenient and accurate information on parking availability and price, using maps, signs, brochures and the Internet.	5-15%	✓
Improve enforcement	Ensure that regulation enforcement is efficient, considerate and fair.	Varies	
Address spillover problems	Use management, enforcement and pricing to address spillover problems.	Varies	

Many parking management strategies can reduce the number of parking spaces needed to serve demands. They tend to be more effective and beneficial in compact and multimodal urban villages.

Energy Consumption and Emissions

Urban villages tend to reduce per capita energy consumption and associated emissions by reducing motor vehicle ownership and use, reducing infrastructure needs, increasing building energy efficiency, and allowing innovations such as district energy and co-generation systems. The CoolClimate Calculator, illustrated below, illustrates these impacts.

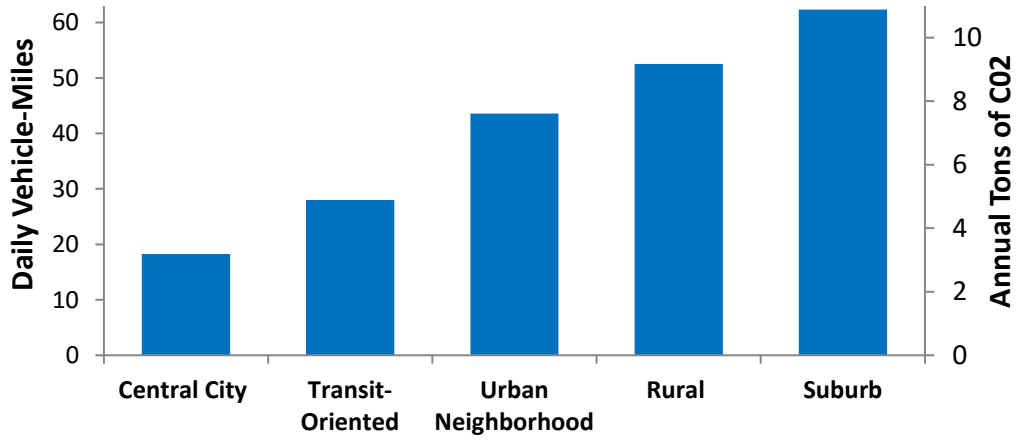
Figure 26 **CoolClimate Carbon Emission Maps** (CoolClimate Maps)



CoolClimate Maps show per-household carbon emissions including transportation, housing, food, goods and services consumed, at a zipcode scale. This example of Saint Louis, Missouri indicates that emissions range from less than 30 metric tons in central areas (dark green) to more than 60 (dark red) in outlying suburbs. Similar patterns exist in most urban regions.

More compact, multimodal neighborhoods significantly reduce vehicle travel and emissions, as illustrated below. Decker, et al. (2017) estimated that infill development can reduce a region's average household travel by about a third. Drew, Nova and Fanning (2015) found that mid-rise (3-4 story) is generally the most resource-efficient housing type overall. A comprehensive study by Lee and Lee (2014) found that doubling U.S. urban region population densities is associated with a 48% reduction in transport emissions and 35% reduction in residential energy consumption.

Figure 27 **Household Vehicle Travel by Location** (Salon 2014)



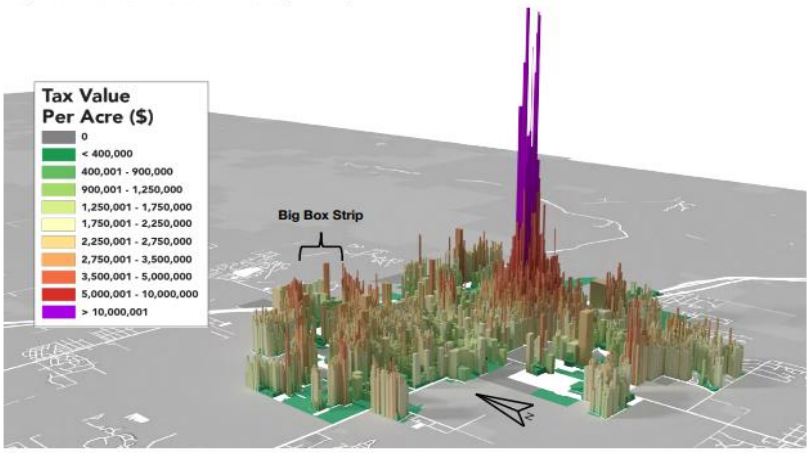
Motor vehicle travel and emissions are much lower (20-60%) in compact, transit-oriented locations than in sprawled, auto-dependent areas.

Economic Development and Resilience

Economic development refers to a community's progress toward economic goals related to productivity, wages and incomes, property values, investment and tax revenues. *Economic resilience* refers to people and communities' ability to respond to unpredictable economic shocks including new costs, price spikes, reduced income, unemployment and disabilities.

Urban village planning supports local economic development and increases resilience in several ways (Litman 2023; Minicozzi 2012). Productivity tends to increase with density (called agglomeration efficiencies) and Walk Score, and decreases with sprawl (Duranton and Kerr 2015). Urban villages create an attractive environment for local businesses, providing stable local employment and tax revenues (Leinberger 2016). Vehicle and fuel purchases tend to generate less local economic activity than most other consumer goods; by reducing these expenses, urban villages leave households with more money to spend on locally-produced goods. Compact, mixed-use commercial centers tend to be more productive and generate more tax revenue than sprawled, automobile-dependent areas because less land needs to be devoted to roads and parking facilities (RTF 2022). The figure below illustrates this effect.

Figure 28 **Property Tax Revenue Per Acre in Bozeman, Montana** (https://bit.ly/3O6LjaY)



Compact, mixed commercial centers tend to generate more jobs, expenditures and tax revenue per acre than automobile-dependent, sprawled commercial development.

Downtown residents and services are increasingly important to urban neighborhood economies as downtown commuting declines.

Households in compact, walkable areas tend to have lower mortgage foreclosure rates, indicating more economic resilience; they are better able to respond to unexpected economic stresses such as reduced incomes or additional financial burdens (Wang and Immergluck 2019; Won, Lee and Li 2017). For example, urban village residents can easily and affordably respond to a vehicle failure, crash or loss of driving privileges that would devastate residents in sprawled, automobile-dependent areas.

Neighborhood livability is increasingly important for local economies as more telework and working at home reduces commuting. A typical commuter spends $2,000 to $4,000 annually at restaurants, personal services and stores near their worksites; a typical resident spends $20,000 to $40,000 annually on rents or condo fees, food, personal services and stores near their homes, so modest growth in local residents can offset large losses in commuter spending. Improving livability factors such as affordability, perceived safety and health, walkability and greenspace can support local economic development.

Public Safety and Health

Urban villages tend to increase public health and safety by reducing traffic risks, improving public fitness, and improving access to healthcare services (Ewing and Hamidi 2014; Litman 2023).

More compact multimodal development increases traffic safety by reducing total vehicle travel, with particularly large reductions by higher risk drivers (youths, seniors and drinkers), and by reducing traffic speeds. Urban village residents have 40-80% lower traffic death rates as demographically comparable residents of automobile-dependent sprawled areas.

Health experts recommend that adults engage in moderate physical activity at least 150 minutes per week (about 22 daily minutes), and more for youths (CDC 2021). Although there are many ways to exercise, most require special time, expense and effort, which discourages their use, particularly by currently sedentary and overweight people. For many, the most practical way to achieve exercise targets is to walk and bike for utilitarian trips and recreation.

A major international study found that controlling for other factors, the number of parks and net residential, intersection, and public transport density were significantly, positively related to physical activity. Local park quantity (portion of land devoted to parks), park quality (per capita parks spending) and accessibility (portion of residents within ½ mile of a park) are positively associated with community health and well-being (Larson, Jennings and Cloutier 2016), and fewer days of poor mental health (Orstad, et al. 2020). The World Health Organization recommends that for public health sake homes be located within 300 meters of greenspaces (WHO 2017). The physical activity differences between residents of the most and least activity-friendly neighbourhoods ranged from 68 to 89 min/week, which represents 45–59% of the 150 min/week recommended by guidelines (Sallis, et al. 2016). The study, "Where Matters: Health & Economic Impacts of Where We Live," found positive relationships between neighborhood walkability and park access and health outcomes, as summarized below.

Table 7 **Health Impacts of Walkability and Park Access** (Frank, et al. 2019)

	Very Walkable Vs. Auto Dependent	Areas with Six+ Local Parks Vs. No Parks
Physical Activity	45% more likely to walk for transportation and 17% more likely to meet recommended physical activity targets.	20% more likely to walk for leisure or recreation and 33% more likely to meet the physical activity targets
Obesity	42% less likely to be obese.	43% less likely to be obese.
Diabetes	39% lower diabetes rates.	37% less likely to have diabetes.
Heart Disease	14% less likely to have heart disease.	39% less likely to have heart disease.
Stress	23% less likely, to have stressful days.	19% less likely to have stressful days.
Sense of Community	47% more likely to have a strong sense of community and belonging.	23% more likely to have a strong sense of community.

This detailed study found that residents of very walkable areas with six or more local parks are much healthier, less stressed and more engaged in community than residents of auto-dependent areas that lack local parks.

Placemaking, Public Realm and Parks

Placemaking refers to planning that creates more attractive and engaging communities (*Project for Public Spaces*). It enhances the public realm, places where neighbors interact such as sidewalks, public parks and local schools. Streets should be designed to maximize pedestrian comfort and include amenities such as street furniture, pedestrian-oriented attractions and greenspace, with tree cover and awnings (CNU 2023). It emphasizes a community's unique culture and style, and supports activities that encourage neighborly interactions such as walking and transit travel, neighborhood festivals, and dog walking. This tends to increase community cohesion, public safety and health, property values, business activity and tax revenues (Frank, et al. 2019; Gilderbloom, Riggs and Meares 2015; Litman 2023).

Placemaking is an art as much as a science. It requires attention to details to create an attractive and comfortable experience, for example, by providing protection from sun and rain, and pedestrian-scale artwork, where people walk and wait. Placemaking should respond to peoples' normal activities and it must be dynamic, able to respond to changing needs. For example, parks should be planned to local residents' needs and preferences including playgrounds for young children, sports fields for older children and quiet areas for seniors.

Summary

The table below summarizes key urban village planning targets based on previously described research. These targets should be adjusted, as appropriate, to reflect specific conditions and needs.

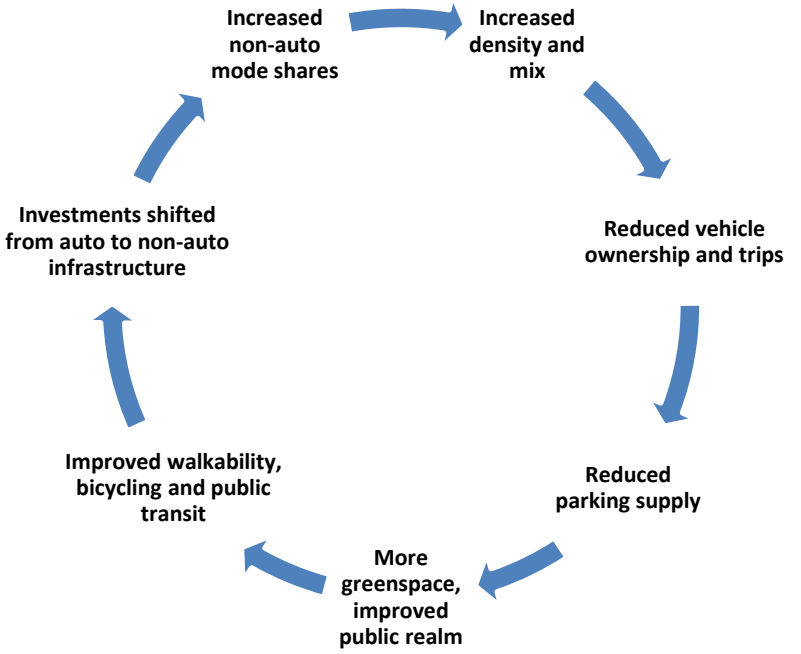
Table 8 **Urban Village Planning Targets**

Design Factor	Targets
Population	At least 5,000 and preferably 10,000+ residents and workers.
Density	At least 15 and preferably more than 25 residents or jobs per acre.
Land use mix	Walk Score over 70 (most commonly-used services within a 15-minute walk).
Jobs/Housing balance	At least 0.5 jobs per capita.
Parks and greenspace	More than 10% of area is public parks. Parks are within a 5-minute walk of most homes.
Tree cover	Trees cover 30-50% of village (depending on climate).
Impervious surface area	Less than 60% of land area.
Housing types	At least half of homes are attached or multifamily.
Housing affordability	At least 20% of homes are affordable to lower-income households.
Universal design	All transport facilities accommodate people with disabilities and other special needs.
Walkability	Sidewalks and crosswalks on 90% of streets.
Bikeability	All ages and abilities bicycle facilities on major roadways.
Complete streets	All major streets accommodate diverse users and uses
Roadway design speeds	Most urban streets have 30 mph or lower traffic speeds.
Transit service quality	Frequent, comfortable and affordable transit services.
Carsharing	Carshare vehicles available within a 10-mintue walk of most homes and businesses.
Parking management	Efficient management minimizes the parking supply needed to serve demands.
Curb management	Curbs are managed to favor priority uses (passengers, deliveries and short errands).
TDM	Incentives for travellers to choose the most efficient mode for each trip.
Quality public realm	Public spaces (sidewalks and parks) are well designed and managed.

This table summarizes typical urban village design targets.

Achieving these targets requires integrated planning. For example, to achieve neighborhood density targets without increasing traffic and parking congestion, vehicle ownership and use decline, so for example, if population density doubles per capita vehicle trips should decline by half so traffic volumes do not increase. Reductions in vehicle ownership and use, and more compact development that allows more sharing of parking facilities, allow large reductions parking supply, which reduces impervious surface area and frees up land for public greenspace.

Figure 29 **Self-Reinforcing Cycle for Successful Urban Villages**



Urban villages require compact and mixed development, reduced automobile ownership and use, less land developed to parking and more to public greenspace, improved walkability and a more attractive public realm, and more walking, bicycling and public transit which makes these modes safer and more attractive.

Many current planning practices contradict these targets. Urban village planning requires policy reforms to support more compact development, more multimodal transportation planning, and more attention to the public realm.

Urban village planning requires several policy reforms related to development, street design, transportation planning and funding, parking management, parks and greenspace planning. All of these reforms are needed to create efficient, affordable and inclusive neighborhoods.

Addressing Potential Problems and Solutions

Compact development often faces criticism, some legitimate but often exaggerated (Caprotti, Duarte and Joss (2024). The table below describes potential problems and potential solutions.

Table 9 **Potential Urban Village Problems and Solutions**

Criticisms and Problems	Solutions
Higher development costs. Additional costs of infill. Additional non-auto infrastructure costs.	Counter criticism with information showing that these costs are small compared with total sprawled development costs.
Unaffordability. Housing costs are excessive for many low- and moderate-income households.	Increase moderate-priced and social housing. Reform development policies to favor lower-cost housing types.
Inadequate services. A village lacks essential services.	Increase village population to support more business and public services. Attract more non-resident customers.
Increased traffic and parking congestion due to densities and road space reallocation increase.	Encourage shifts from driving to space-efficient modes. Use accessibility- rather than mobility-based indicators.
More visible social problems including homelessness, mental illness and crime.	Increase social housing. Apply targetted programs to reduce problems and risks.
Crowding. Smaller homes and gardens.	Build more family-size apartments. Reduce road and parking requirements to allow more greenspace.
Increased air and noise pollution exposure.	Limit traffic speeds and volumes. Apply targetted programs.

This table identifies potential urban village criticisms, problems, responses and solutions.

Urban village planning requires reforming current planning practices that favor sprawl over compact infill and automobile travel over more affordable and efficient modes.

Table 10 **Planning Distortions and Reforms**

Planning Distortion	Reforms
Limits on density and multifamily housing.	Upzone to allow mid-rise multifamily housing in most urban areas.
Parking minimums.	Reduce or eliminate parking minimums so non-drivers are no longer forced to pay for parking facilities they don't need.
Automobile-oriented transportation system performance evaluation.	Evaluate performance based on accessibility (time and money required to access services and activities) rather than traffic conditions.
Automobile-oriented planning and funding	Apply multimodal planning. Ensure that non-auto modes receive a fair share of infrastructure investments.
Poor walking, bicycling and public transit conditions.	Apply a sustainable transportation hierarchy which favors resource-efficient modes in planning, roadway design and funding.

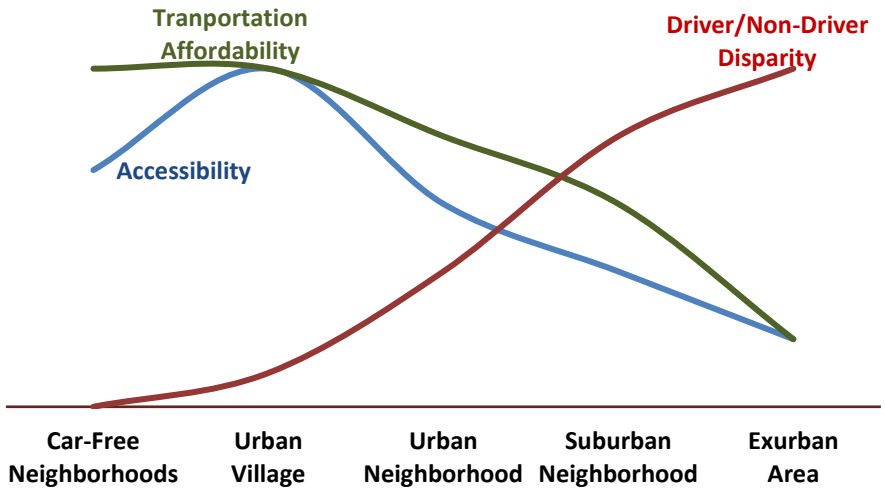
This table identifies potential urban village problems and solutions.

Urban villages increase accessibility, which provides travel time and economic savings, but these are not generally recognized by conventional transportation planning. Urban village planning requires shifting from mobility-based to accessibility-based planning, which recognizes the value of proximity and non-auto modes. Some aspects of urban village planning may face political criticism. To overcome this, advocates and planners must be able to communicate the full benefits that urban villages provide and respond to legitimate concerns about potential problems (Marquet, et al. 2024).

Conclusions

Urban villages are compact, multimodal neighborhoods where basic services are easy to access without driving. By increasing density, they reduce per capita land consumption, infrastructure costs and habitat loss. By improving lower-cost housing and travel options they increase affordability, inclusivity and economic resilience. They provide independent mobility to non-drivers which improves their economic opportunities and reduces disparities between advantaged and disadvantaged groups. By reducing automobile travel and increasing non-auto travel they reduce traffic and parking problems, improve public safety and health, and reduce pollution and habitat loss. Urban villages offer better accessibility by non-auto modes than suburban areas provide to motorists, at a fraction of the cost. They increase community cohesion (positive relationships among neighbors) by increasing walking and use of local services, providing an antidote to the segregation and isolation of modern life.

Figure 30 **Comparing Affordability, Accessibility and Equity**



Car-free neighborhoods and urban villages have the most affordable transportation and minimize disparities between drivers and non-drivers.

Because urban villages are multimodal and allow a limited amount of private vehicle travel, they provide the greatest overall accessibility.

Urban villages require optimal densities, housing types, services, travel options, park supply, tree cover and the public realm. To be successful they must include commonly used services, and enough residents and workers to support those services, within a walkshed, plus limits to auto traffic and improvements and incentives to use resource-efficient modes. This typically requires at least 5,000 residents and workers within a 500 acre area. They need excellent walkability and an attractive public realm, with amenities such as street furniture, greenspace and shade, that encourage neighborhood sociability.

Urban village planning supports compact and mixed development, active and public transport improvements, safe traffic speeds, plus TDM incentives that encourage non-auto travel over driving. This involves shifting public resources – money and road space – from expanding roads and parking facilities to improving non-auto modes. It may require governments to assemble land for compact infill development rather than expropriating land to expand roadways to accommodate the additional development that results from urban fringe development.

Many households want homes in urban villages but cannot have them due to limited supply. To maximize benefits, public policies should ensure that anybody who wants – particularly people with disabilities and low incomes – can live in an urban village.

References and Information Resources

AARP and CNU (2021), *Enabling Better Places: A Handbook for Improved Neighborhoods*, American Association of Retired Persons (www.aarp.org); at https://tinyurl.com/22b45e9y.

Kristin N. Agnello (2018), *Zero to 100: Planning for an Aging Population*, Plassurban (www.plassurban.com); at www.plassurban.com/wp-content/uploads/2019/05/Zero_to_100_age-friendly_Housing_final.pdf.

Kristin N. Agnello (2020), *Child in the City: Planning Communities for Children & Their Families*, Plassurban (www.plassurban.com); at www.plassurban.com/wp-content/uploads/2020/10/Child-in-the-City.pdf.

Christopher Alexander, et al. (1977), *A Pattern Language: Towns, Buildings, Construction*, Oxford University Press; at https://global.oup.com/academic/product/a-pattern-language-9780195019193.

Serena E. Alexander, Mariela Alfonzo and Kevin Lee (2021), *Safeguarding Equity in Off-Site Vehicle Miles Traveled Mitigation*, Mineta Institute (DOI: 10.31979/mti.2021.2027); at https://tinyurl.com/4ku4p8hs.

G.B. Arrington and Kimi Iboshi Sloop (2009), "New TCRP Research Confirms Transit-Oriented Developments Produce Fewer Auto Trips," *ITE Journal* (www.ite.org), Vo. 79/6 pp. 26-29; at http://bit.ly/1L2inL4.

Jon M. Bailey (2010), *Rural Grocery Stores: Importance And Challenges*, Center for Rural Affairs (www.cfra.org); at https://tinyurl.com/3phd2f29.

Bob Bengford (2017), *Visualizing Compatible Density*, MRSC (https://mrsc.org); at https://mrsc.org/stay-informed/mrsc-insight/april-2017/visualizing-compatible-density.

Carolyn Birkenfeld, et al. (2023), "Who Is Living a Local Lifestyle? Towards a Better Understanding of the 15-Minute-City and 30-Minute-City Concepts From a Behavioural Perspective in Montréal, Canada," *Journal of Urban Mobility*, Vo. 3 (https://doi.org/10.1016/j.urbmob.2023.100048).

Cherise Burda (2014), *Home Location Preference Survey: Understanding Where GTA Residents Prefer to Live and Commute*, Pembina Institute (www.pembina.org); at https://bit.ly/2MLQjE1.

Federico Caprotti, Catalina Duarte and Simon Joss (2024), "The 15-minute City as Paranoid Urbanism: Ten Critical Reflections," *Cities*, Vo. 155 (https://doi.org/10.1016/j.cities.2024.105497).

Erin Caldwell (2024), "For Walkable Neighborhoods, We Need More Useful Businesses," *Next City* (https://nextcity.org); at https://tinyurl.com/5n6k5pzt.

Tristan Cleveland (2023), *Urban Intercurrence: The Struggle to Build Walkable Downtowns in Cardependent Suburbia*, Dalhousie University (http://hdl.handle.net/10222/82562); at https://tinyurl.com/3szk8u9r.

CNT (2023), *Housing & Transportation Affordability Index*, Center for Neighborhood Technology (https://cnt.org); at https://htaindex.cnt.org.

CNU (2023), *Ten Features of Walkable Communities*, Congress for New Urbanism (https://www.cnu.org); at https://www.cnu.org/publicsquare/2023/12/22/ten-features-walkable-communities.

Josh Cohen (2025), *Why Seattle's Housing Density Plans Are a Disability-Rights Issue*, Cascade PBS (www.cascadepbs.org); at www.cascadepbs.org/politics/2025/02/why-seattles-housing-density-plans-are-disability-rights-issue.

CUI (2020), *In it Together: Bringing Back Canada's Main Streets*, Canadian Urban Institute (https://canurb.org); at https://bit.ly/3nuqlGh.

Nathaniel Decker, et al. (2017), *Right Type, Right Place: Assessing the Environmental and Economic Impacts of Infill Residential Development*, Terner Center (ternercenter.berkeley.edu); at https://tinyurl.com/5t39uem7.

Ryan DiRaimo (2021), *Seattle Has the Space*, The Urbanist (www.theurbanist.org); at https://bit.ly/3ElncRJ.

Christopher Drew, Katrina Fernandez Nova, and Keara Fanning (2015), "The Environmental Impact of Tall vs Small," *International Journal of High-Rise Buildings*, Vo. 4/2. pp. 109-116; at https://bit.ly/3ePt4ra.

Gilles Duranton and William R. Kerr (2015), *The Logic of Agglomeration*, Working Paper 16-037, Harvard Business School (www.hbs.edu); at https://tinyurl.com/48mbndmh.

Reid Ewing and Shima Hamidi (2014), *Measuring Urban Sprawl*, National Cancer Institute (www.cancer.gov).

Reid Ewing, et al. (2016), "Does Urban Sprawl Hold Down Upward Mobility?" *Landscape and Urban Planning*, Vol. 148, April, pp. 80-88; at www.sciencedirect.com/science/article/pii/S016920461500242X.

Anne Forsyth (2003), *Measuring Density: Working Definitions for Residential Density and Building Intensity*, Design Center for American Urban Landscape (https://annforsyth.net); at https://tinyurl.com/mr36xzau.

Lawrence Frank, et al. (2019), *Where Matters: Health & Economic Impacts of Where We Live*, Metro Vancouver (https://metrovancouver.org); at http://tinyurl.com/5c4u59c6.

Camille A. Galdes and Justin Schor (2022), *Don't Underestimate Your Property: Forecasting Trips and Managing Density*, Wells & Assoc. (www.wellsandassociates.com); at https://bit.ly/3CW2itO.

John I. Gilderbloom, William W. Riggs and Wesley L. Meares (2015), "Does Walkability Matter? An Examination of Walkability's Impact on Housing Values, Foreclosures and Crime," *Cities*, Vol. 42, pp. 13–24 (http://dx.doi.org/10.1016/j.cities.2014.08.001); at https://daneshyari.com/article/preview/1008334.pdf.

Luis A. Guzman, Daniel Oviedo and Victor A. Cantillo-Garcia (2024), "Is Proximity Enough? Critical Analysis of a 15-Minute City Considering Individual Perceptions," *Cities*, Vo. 148 (doi.org/10.1016/j.cities.2024.104882).

Paul Knight (2023), *The Urban Form Standard*, Doug C. Allen Institute (www.DougAllenInstitute.org); at https://urbanformstandard.com.

Knight Frank (2020), *Walkability and Mixed Use - Making Valuable and Healthy Communities*, The Prince's Foundation (https://princes-foundation.org); at https://bit.ly/3maEjNy.

ITF (2023), *Improving the Quality of Walking and Cycling in Cities*, ITF Roundtable Report No. 193, International Transport Forum (www.itf-oecd.org); at http://tinyurl.com/yc46arhm.

Joseph (2022), *The Importance of the Urban Walkshed*, Upstate Urbanism (https://upstateurbanism.wordpress.com); at https://tinyurl.com/p7duhxrb.

Sungwon Lee and Bumsoo Lee (2014), "The Influence of Urban Form on GHG Emissions in the U.S. Household Sector," *Energy Policy*, Vo. 68, pp. 534-549 (https://bit.ly/2OIbshY); at https://bit.ly/2xC4TpS.

Sujin Lee, et al. (2022), "What Cities Have is How People Travel: Conceptualizing a Data-Mining-Driven Modal Split Framework," *Cities*, Vo. 131 (www.sciencedirect.com/science/article/pii/S0264275122003419).

Michael Leff (2016), *The Sustainable Urban Forest A Step-by-Step Approach*, The Davey Institute (www.davey.com); at https://tinyurl.com/2tzw6hk3.

Jonathan Levine, et al. (2012), "Does Accessibility Require Density or Speed?" *Journal of the American Planning Assoc.*, Vo. 78/2, pp. 157-172 (doi.org/10.1080/01944363.2012.677119); at https://bit.ly/3r2VvLF.

Chris B. Leinberger (2016) *The Walk UP Wake-Up Call*, The George Washington University School of Business; at https://smartgrowthamerica.org/wp-content/uploads/2016/08/Walkup-report.pdf.

Todd Litman (2020), *Community Cohesion as a Transport Planning Objective*, Victoria Transport Policy Institute (www.vtpi.org); at www.vtpi.org/cohesion.pdf.

Todd Litman (2021), *Pavement Busters Guide*, Victoria Transport Policy Institute (www.vtpi.org); at www.vtpi.org/pavbust.pdf.

Todd Litman (2023), *Understanding Smart Growth Savings*, Victoria Transport Policy Institute (www.vtpi.org); at www.vtpi.org/sg_save.pdf.

Todd Litman (2024), *Transportation Affordability: Evaluation and Improvement Strategies*, Victoria Transport Policy Institute (www.vtpi.org); at www.vtpi.org/affordability.pdf.

Todd Litman and Melrose Pan (2023), *TDM Success Stories*, Victoria Transport Policy Institute (www.vtpi.org); at www.vtpi.org/tdmss.pdf.

Oriol Marquet, et al. (2024), "Pathways to 15-Minute City Adoption," *Cities*, Vo. 148 (https://doi.org/10.1016/j.cities.2024.104878).

Robert I. McDonald, et al. (2024), "Current Inequality and Future Potential of US Urban Tree Cover for Reducing Heat-Related Health Impacts," *Urban Sustainability*, Vo. 4 (doi.org/10.1038/s42949-024-00150-3).

Measuring Main Streets (https://measuringmainstreets.ca), by Infrastructure Canada, provides analysis tools and guidance for planning better commercial streets and mixed-use neighborhoods.

Hugh Millward and Jamie Spinney (2011), "Time Use, Travel Behavior and the Rural–Urban Continuum," *Jnl. of Transport Geography*, Vol. 19/1, pp. 51-58, (DOI: 10.1016/j.jtrangeo.2009.12.005); at https://bit.ly/2Dy3isd.

Joseph Minicozzi (2012), *The Smart Math of Mixed-Use Development*, Planetizen (www.planetizen.com); at www.planetizen.com/node/53922. Also see, *Urban3 Lectures* (www.urbanthree.com/lectures).

Steve Mouzon (2025), *It's Time to Revise the Metrics for Measuring Quality Places*, Common Edge (https://commonedge.org); at https://tinyurl.com/narexcur.

NACTO (2020), *Designing Streets for Kids*, Global Designing Cities Initiative (https://globaldesigningcities.org), National Association of City Transportation Officials; at https://tinyurl.com/3a2j5r6s.

NAR (various years), *National Community Preference Survey*, National Association of Realtors (www.realtor.org); at www.nar.realtor/reports/nar-community-and-transportation-preference-surveys.

NMFC (2022), *Household Characteristics*, National Multifamily Housing Council (www.nmhc.org); at https://tinyurl.com/3xh768du.

Stephanie L. Orstad, et al. (2020), "Park Proximity and Use for Physical Activity among Urban Residents: Associations with Mental Health," *IJERPH*, Vo. 17 (13), pp. 4885 (https://doi.org/10.3390/ijerph17134885).

Project for Public Spaces (www.pps.org) provides resources for developing more livable communities.

Elizabeth Plater-Zyberk (2024), "The 5-Minute Neighborhood, 15-Minute City, and 20-Minute Suburb," *Public Square* (www.cnu.org); at https://tinyurl.com/4hsbc5ye.

Paul Redelmeier, et al. (2023), "Linking Neighborhood Walkability to the Independence and Quality of Life of Older Adults across Canada," *Findings* (https://doi.org/10.32866/001c.91402).

RTR (2022), *The Root of Local Government Revenues: Rethinking the Intersection between Land Use Planning and Finances to Boost the Revenue Productivity*, Rethinking Revenue (www.gfoa.org/rethinking-revenue).

James F. Sallis, et al. (2016), "Physical Activity in Relation to Urban Environments in 14 Cities Worldwide: A Cross-Sectional Study," *The Lancet*, Vol. 387 (10034), pp. 2207–2217 (doi: 10.1016/S0140-6736(15)01284-2).

Deborah Salon (2014), *Quantifying the Effect of Local Government Actions on VMT*, UC Davis Institute of Transportation Studies (https://its.ucdavis.edu), California Air Resources Board; at https://bit.ly/2NHsmkS.

Marc Schlossberg, et al. (2013), *Rethinking Streets: An Evidence-Based Guide to 25 Complete Street Transformations*, University of Oregon (http://sci.uoregon.edu); at www.rethinkingstreets.com.

Robert J. Schneider, Susan L. Handy and Kevan Shafizadeh (2014), "Trip Generation for Smart Growth Projects," *ACCESS 45* (tinyurl.com/oye8aqj).

Sergio Serra (2024), *Determining the Optimal Amount of Grocery Stores for a Metropolitan Area*, Sergio Expresso (https://sergioespresso.com); at https://tinyurl.com/2esrnjea.

Robert Steuteville (2020), "Your Guide to a Unifying Urban Theory," *Public Square* (www.cnu.org); at www.cnu.org/publicsquare/2020/12/10/your-guide-unifying-urban-theory.

Galina Tachieva (2015), *Sprawl Repair Manual*, Island Press (islandpress.org); at https://sprawlrepair.com.

Kyungsoon Wang and Dan Immergluck (2019), "Neighborhood Affordability and Housing Market Resilience," *Journal of the American Planning Association* (https://doi.org/10.1080/01944363.2019.1647793).

Jake Wiersma and Luca Bertolini (2024), "Making the Trade-Offs Between Parking and Placemaking Visible and Actionable," *Journal of Urban Design*, pp. 1–17 (https://doi.org/10.1080/13574809.2024.2337726).

Jaewoong Won, Chanam Lee and Wei Li (2017), "Are Walkable Neighborhoods More Resilient to the Foreclosure Spillover Effects?" *Journal of Planning Literature*, pp. 1-14 (10.1177/0739456X17702443); at https://bit.ly/2Mu2iZs.

JunJie Wu, Jialing Yu, and Walid Oueslati (2023), "Open Space in U.S. Urban Areas: Where Might There Be Too Much or Too Little of a Good Thing?" *JAERE* (www.journals.uchicago.edu/doi/full/10.1086/721756).

www.vtpi.org/uvp.pdf