

cars, leaving more-on street parking and reducing lane width. Another fundamental issue that most cities have is overly wide streets that encourage faster driving, thus creating unsafe environments for pedestrians. He emphasizes that “Most motorists drive the speed at which they feel comfortable, which is the speed to which the road has been engineered.”⁷² The faster a car is traveling the more likely it is to cause death, in the event of an accident. Speck notes, “Many American cities rebuild their streets with lanes that are twelve, thirteen, and sometimes even fourteen feet wide. Now cars are only six feet wide...”⁷³ Correcting the standard to appropriately sized lanes (10 to 11 feet wide) has been proven to reduce fatalities. The challenge, once again, is too change the standard that streets engineers use to design roadways. A final suggestion that Speck has for downtown roadways is the elimination of one-way streets. There are a myriad of reasons he lists as to why one-ways are less effective than two-way roads. One reason is that one-ways cause cars to travel at higher speeds because there is no friction caused by cars coming in the opposite direction and more lanes for passing slower traveling cars. Another reason is that one-ways negatively affect retail because “they distribute vitality unevenly” as regular commuters will only pass stores at one time in the day during their regular commute to and from work. A third reason is that one-ways cause increased congestion by drivers who have to complete a loop to return to a certain location. The last area Speck addresses are sidewalks, where pedestrians spend most of their time. In order to keep sidewalks safe from traffic Speck stresses the importance of having a barrier between the traffic and sidewalk. This can be achieved in many ways but the most effective is having on street parking as well as trees that serve as an additional barrier.

Welcome Bikes

Improvements for cyclists are also victories for pedestrians. This is because “A street with bikes ... is a place where cars proceed more cautiously.”⁷⁴ Some of the more notable effects of bike lanes can be observed, “along New York’s avenues, [where] injuries to pedestrians have dropped by about a third. Indeed on Broadway and on Ninth Avenue, reported accidents and injuries to all users were cut in half...”⁷⁵ The conditions that invite biking (urban density, mixed uses, short trip distances, high cost of operating vehicles) are also needed to support pedestrians. An added benefit of increasing bike infrastructure is its low cost. For example in Portland the city was able to build 275 miles of bikeways for about \$50 million, the cost to build one mile of freeway.⁷⁶ According to Speck bike lanes can be installed while rarely affecting car capacity, especially in cases where road diets are implemented and a center turn lane is introduced. Additionally bike lanes can be used to correct overly wide streets that were designed poorly by street engineers. Adding separated bike lanes is a context sensitive solution; lanes should not be put in that replace on-street parking. It is also imperative that the bike lanes connect to a large network, if it wishes to attract enough users to warrant their installation.

Shape the Spaces

This step focuses on how building design can make streets more comfortable and inviting to pedestrians. Speck adds “we also enjoy—and need—a sense of enclosure to feel comfortable as pedestrians.”⁷⁷ The biggest disruptor of enclosed space—having a continuity of buildings on both sides of the street—is surface parking, which is found in overabundant quantities in almost every American downtown. Adding buildings to the street front of surface parking is a solution,

but one that also requires careful consideration. It is important to design buildings that shape the spaces they occupy.

Plant Trees

Trees provide a multitude of benefits to the walkability of any city. Speck lists a number of advantages of trees including shade, reduction of ambient temperature in hot weather, absorption of rainwater and emissions, UV and wind protection, as well as reducing car speeds.⁷⁸ The economic benefits of planting trees far outweigh the cost of their installation. “A properly shaded neighborhood is said to require 15 to 35 percent less air-conditioning than a treeless one.” A single tree is able to absorb about a half inch of water from every rainfall. This reduces combined sewage overflows (stormwater combined with sanitary sewage) that costs cities millions of dollars every year.⁷⁹ In addition, trees have been associated with increases in property value and retail viability, which should give cities incentive to plant more trees. A study done of Portland’s east side concluded that street trees adjacent to houses added 3 percent to the sale price of a house, an average of \$8,870.⁸⁰ Looking at Portland as a whole, the study estimated that street trees add \$15.3 million to annual property tax revenues while the city spends \$1.28 million a year to plant and maintain trees, resulting in a payoff of twelve to one.⁸¹ Speck coins the term “continuous canopy”, describing a landscape where trees, of the same species, are planted strategically resulting in interconnectedness between each individual specimen. It is also important to plant trees that offer the most environmental benefits (deciduous trees over palm trees). As mentioned earlier trees also serve as barrier between traffic and pedestrians.

Make Friendly and Unique Faces

Walking along city streets should be a form of entertainment for pedestrians. The front of buildings should be interesting for pedestrians regardless of function. For example parking garages should have ground floor activities such as restaurants and cafes that invite people while disguising its actual function. Buildings can also be used to provide a street façade to surface parking lots or structures that are set back from the street. Speck comments, “a thin crust of wood-frame structures can conceal acres of tarmac.”⁸² Speck believes that the most effective way to make buildings more inviting is by changing zoning codes. By requiring that buildings along major streets have open and inviting facades (places to sit, awnings, transparency, etc.) the pedestrian environment can be greatly enhanced. Jane Jacobs has noted “almost nobody travels willingly from sameness to sameness and repetition to repetition, even if the physical effort required is trivial.”⁸³ For this reason Speck advises that no more than 200 feet of continuous street frontage should appear to be to have been designed by the same architect. For larger projects this can be achieved by appointing a master developer who oversees developments by a collection of people. Green space is another area that can add to walkability but may also be harmful if it is not scaled properly. David Owen, author of Green Metropolis, notes that “if the goal is to get people to embrace walking as a form of practical transportation, oversized greenways can actually be counterproductive.”⁸⁴ Speck recommends small and frequent pocket parks and playgrounds that do not create large holes in the urban fabric.

Pick Your Winners

The final step, and arguably the most important for changing the walking culture of a city is selecting the right locations to implement the previous nine steps. As Speck puts it “Where can

spending the least amount of money make the most difference?”⁸⁵ Answering his question, Speck points to downtowns as the best areas for implementing walkability improvements. In most cities, downtowns already have most of the key ingredients for creating walkable neighborhoods, such as streets framed by buildings and a mix of uses. “... In any city’s downtown, there is a network of walkability sometimes hidden, that is waiting to emerge”⁸⁶ The problem in many downtowns is that areas that attract a large pedestrian activity are cut off from each other. Many times this requires improving streets that separate two walkable neighborhoods. The key to creating walkable cities is connecting walkable streets into a larger network that opens up the entire city to pedestrian activity. “it only takes a few blocks to create a reputation. The lesson ... is to start small with something that is as good as you can make it.”⁸⁷ Most cities’ reputations come from their downtowns. “The downtown is the only part of the city that belongs to everybody.”

Findings & Recommendations

Interviews

Seven interviews were conducted with individuals from varied backgrounds, ranging from advocacy groups, city planning, and residents of Downtown. I chose to include interviews because I needed input from individuals with a comprehensive understanding of the Downtown pedestrian culture. The information gathered from these interviews has given me crucial insight how to make downtown more walkable and will be included in my twelve step guideline. I interviewed three individuals from the walking advocacy group Los Angeles Walks including: My La, Planner with the Los Angeles Department of City Planning; Mark Vallianatos, Policy

Director of the Urban & Environmental Policy Institute, Adjunct Professor in Urban & Environmental Policy at Occidental College, and member of the zoning advisory committee for Los Angeles; and Daveed Kapoor, architect and member of the Downtown Los Angeles Complete Streets Working Group. In addition, I interviewed Christopher Hawthorne, Architecture Critic for the Los Angeles Times; Valerie Watson, Pedestrian Coordinator for Los Angeles; Nirad Gupta, architect and Downtown Los Angeles Resident; and Neel Sodha, Owner and Operator of Downtown Los Angeles Walking Tours and Downtown resident.

Surveys

In order to gain insight into the public's assessment of walking in Downtown Los Angeles, I created a survey to evaluate their experiences (Appendix A). I was able to gather 50 surveys and distribute them in two ways: administering them in person and sharing the survey online using Qualtrics software. I gathered 30 surveys by street canvassing in Grand Park, West 8th Street between Figueroa Street and Main Street, and Spring Street between 1st and 9th Street. The remaining 20 surveys were collected online, administered to individuals who have had experience walking Downtown. It must be noted that the results from this survey are limited due to the small sample size as well as location bias. Certain areas of Downtown are more walkable than others, and due to location of my distribution answers may be skewed. However, the data is useful to serve as a guide to identify which issues may need more attention.

Of the 50 surveys completed 31 respondents were male and 19 female. 35 respondents were visitors, 4 employees, and 11 residents of Downtown. I will summarize a few of the questions that were most useful for my research and recommendations.

When asked if they felt safe walking alone in Downtown during the day 92 percent of respondents answered, “Yes”. Of those who answered “No” crime ranked as the number one reason why they did not feel safe. When asked if they felt safe walking at night, the responses changed drastically. During the night, 51 percent of respondents did not feel safe walking alone. When asked to explain why they did not feel safe a majority listed an answer along the lines of a “lack of pedestrian activity.” This may be due to the fact that Downtown does not offer enough activities during the night to support an active street life. In my opinion DTLA needs to facilitate a better mix of uses such as bars, restaurants, street vending, and housing which will bring more users to the street at night. Another reason people may not feel safe is a lack of adequate lighting. When asked if sidewalks were adequately lighted for use at night 65 percent of respondents said they were only half of the time. Perhaps if all streets in Downtown had adequate lighting, people would feel safer walking in their neighborhoods. The conditions of the sidewalks also play into how comfortable people feel when walking Downtown. When asked if the sidewalks are in good condition 61% of people said that they were in good condition only half of the time or never at all. This statistic shows that investments need to be made in order to improve the walking environment of Downtown. The recent agreement by the city to spend \$1.2 billion on sidewalk repair should address this issue. One of the most important questions for my recommendations was what people would choose to improve about their walking experience (Appendix A Q18). Suggestions from the community are crucial for determining which improvements would have the biggest impact. The most popular answers were wider sidewalks, more trees, and more places to sit.

Overall, my survey has allowed me to gather a general idea on how people perceive the walking environment in Downtown. Trends in the responses I received guided my research and helped me identify which issues needed further investigation.

Demographic Information of Downtown Los Angeles

A 2013 demographic study conducted by The Downtown Center Business Improvement District (DCBID)⁸⁸ found that there are 52,400 residents living in downtown, an 8 percent increase from 2011. 53 percent of residents are female and 47 percent male with a median age of 34 years old. 90 percent of residents are employed, and of that number 56 percent work in downtown. Over 500,000 people are employed at a business located in downtown. The median household income of residents is \$98,700 compared to national median income of \$53,046.⁸⁹ Downtown receives over 10 million visitors a year.

Twelve Steps of Walkability for Downtown Los Angeles

Below I have listed my twelve-step adaptation of Speck's 'Ten Steps of Walkability'. The twelve steps I have created serve as a guide for making the streets of Downtown Los Angeles more walkable. This list incorporates information gathered through interviews, surveys, literary analysis, and personal experiences walking downtown. It is important to note that these recommendations should be applied using a context sensitive approach. Downtown Los Angeles is composed of numerous districts, including the Arts District, Bunker Hill, Civic Center, El Pueblo, Fashion District, Financial District, Gallery Row, Historic Core, Jewelry District, Little Tokyo, Skid Row, South Park, and the Toy District. Each of these neighborhoods has distinct

characteristics that should be taken into consideration before changes are applied. The ideas I propose should serve a guideline that can be fine-tuned to meet specific neighborhoods demands.



Districts of Downtown Los Angeles⁹⁰

Put Cars in Their Place

Nothing has had a greater influence on the landscape of Los Angeles than cars. Downtown Los Angeles was established and primarily developed before the proliferation of cars, however it has been drastically reshaped over the last 80 years to accommodate the needs of cars. Road engineers have created an induced demand for automobiles in Downtown through widening roads, creating one-way streets, raising speed limits, etc. By designing roads with only the car in mind, walking has become less practical, appealing, and safe. This is not the best recipe for creating a vibrant and prosperous urban core, which depends on the presence of pedestrian activity. The focus now should be on giving priority to people when designing and redesigning streets downtown. This will help to create a balance between space for cars and other usages of the street. As Speck suggests, strong leadership is a crucial component for changing

the way streets are designed, as some of the biggest challenges of making change are political matters. Policy improvements in the past decade have demonstrated a promising shift in political support for streets that promote walking. In 2008, sitting California Governor Arnold Schwarzenegger signed into law Assembly Bill 1358-the Complete Streets Act. This bill required that all cities include Complete Street policies in their general plans. While the bill does not define a singular design template, as complete streets should be designed to respond to community context, it does require that cities make roadways accessible for all users. The key to the success of this bill depends on how it is implemented.

In Downtown Los Angeles a large portion of this responsibility falls on Mayor Garcetti and his ability to coordinate road engineers, landscape architects, urban designers, and other agencies to create an effective vision that incorporates Complete Streets policies. Mayor Garcetti has already taken initiative by supporting an updated version of the city's Transportation Plan called the Mobility Plan for 2035. This plan, created through a joint effort of the city's Departments of Planning and Transportation, has the goal of changing street standards to reflect the needs of all transportation modes. My La, who is currently working on the Mobility Plan for 2035, believes that many engineers are scared to challenge the existing standards because they can lose their certification. While the new Mobility Plan is a good sign for walkability it still lacks a comprehensive strategy and concrete guidelines for designing streets. Mark Vallianatos remains hopeful that the updated mobility element, if approved, will change the way engineers design streets in downtown. He also concedes that it may take a while for a culture shift to occur within the City's Bureau of Engineering, which has historically focused on increasing traffic flow by widening streets. If the new mobility plan is implemented we can expect to see

improvements in pedestrian infrastructure Downtown including wider sidewalks, increased number of cross walks, and street trees.

The Great Streets Initiative is another example of the Mayor exercising his political influence to improve the pedestrian environment in Los Angeles. Mayor Garcetti, who holds a degree in Urban Planning, understands the important role that streets play in the urban setting. When speaking about his Great Streets program he noted that streets are the largest public asset in Los Angeles, accounting for around 15 percent of all the land in the city. The Mayor said that the goal of his program to make streets more pedestrian friendly as well accessible for all forms of transportation.⁹¹ Christopher Hawthorne believes that the Mayor's initiative is a great sign of progress for Los Angeles, and hopes that the program produces a blueprint that can be applied—with adjustments—to streets throughout the city.⁹²

In addition to strong leadership from city officials, support from the community is another key component for creating walkable cities. Advocacy groups such as Los Angeles Walks have played an important role in bringing attention to issues that affect the walkability of the city. In 2013 Los Angeles Walks launched the campaign "*Hey, I'm Walking Here*" to raise money for pedestrian improvements and bring attention to the fact that walking is undervalued by Angelenos. Campaigns like "*Hey, I'm Walking Here*" and events like CicLAvia, which has incorporated a larger walking component in recent years, have helped change the public perception of walking in Los Angeles. Support from the public is crucial for putting pressure on elected officials to use their political power to ensure that streets are being designed to accommodate pedestrians.

A few recommendations that may be possible to implement in the future are congestion pricing and pedestrian only zones. At this point congestion pricing would adversely affect

downtown because it does not yet have to appeal to warrant additional taxes. As urban planning blogger Ken Benfield notes, congestion pricing “works in London, and might even work in New York, cities whose downtowns are so strong that they can withstand being taxed in a way that their suburbs are not.”⁹³ If Downtown Los Angeles becomes an essential destination like central London, congestion pricing may offer an effective solution for decreasing traffic. In addition, a congestion tax would raise funds that can be invested in infrastructure for walking, biking, and mass transit. On a similar note, pedestrian only zones should be created if there is enough density to support their installation. Downtown should focus on gradually giving more space to pedestrians. This can be achieved by temporarily closing down streets on weekends for events such as farmers markets or art walks. Over time the amount of days that the street is closed to traffic can be expanded to slowly test the feasibility of a permanent pedestrian-only zone. If made permanent these areas can become retrofitted with low cost materials including seating and umbrellas, creating spaces for social interaction and relaxation.

The goal of this step is to give priority to pedestrians by bringing balance to the standard streetscape, which has allotted too much space to cars. I am not recommending the complete elimination of cars because that would be unrealistic as well as damaging to the life of a city. As Speck says “It would seem that only one thing is more destructive to the health of our downtowns than welcoming cars unconditionally and that is getting rid of them entirely. The key is to welcome cars in the proper number and at the proper speed.”⁹⁴ The specific design methods than can be implemented to achieve a better-balanced street will be described in my following steps.

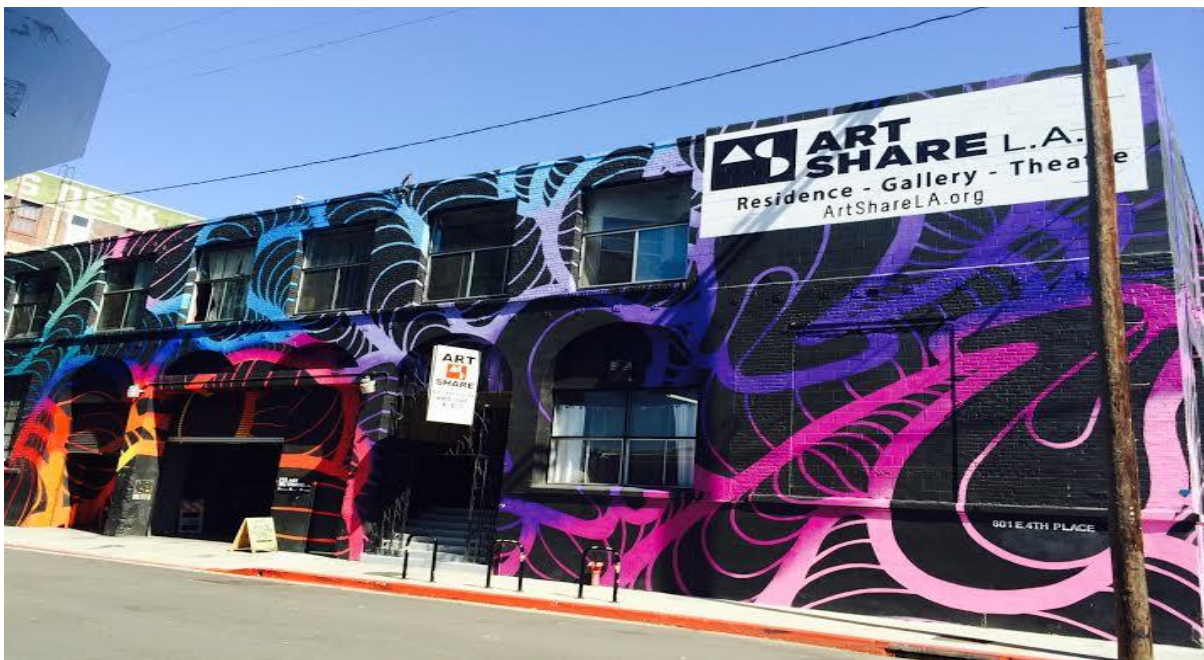
Mix the Uses

The guidelines for development in Downtown are dictated by the city Zoning Code and neighborhood-specific Community Plans. The community plans represent stakeholders' desires for specific land uses in a neighborhood, while the zoning code serves as a regulatory document that outlines and enforces land usage.⁹⁵ Both of these rulebooks are badly outdated, and unreasonably complicated; the zoning code has swelled to over 800 pages since its establishment 70 years ago. These guidelines have limited or prevented desired development in Downtown by forcing developers to go through a lengthy and costly process to get projects approved. To address this issue, the City Planning Department has been working to rewrite these rules, under the name Re:Code LA, to better reflect the needs and desires of stakeholders in Los Angeles. Michael LoGrande, head of the city's Planning Department says "The primary objective of code reform is to amend the rules so it is easier for a developer to build the types of projects that stakeholders in an area want and harder to build projects that conflict with the updated Community Plan."⁹⁶ Mark Vallianatos, currently working on the Re:Code LA committee, affirms that the new code will allow for more mixed use developments and increased density downtown. He notes that under the current rules less than 5 percent of the city is zoned to allow for residential and commercial activity to coexist on one property.⁹⁷ A 2011 study conducted by the University of California at Irvine found that residents living in neighborhoods with a mix of uses walk nearly three times more often than residents who have to travel to a main arterial roadway—a pattern typically found in suburban style development.⁹⁸ In its current configuration the zoning system reflects a post war city vision tailored around suburban living. The code makes more sense outside of the context of Downtown where large portions of Angelenos still desire to live in single-family homes in suburban style developments. In Downtown, residents

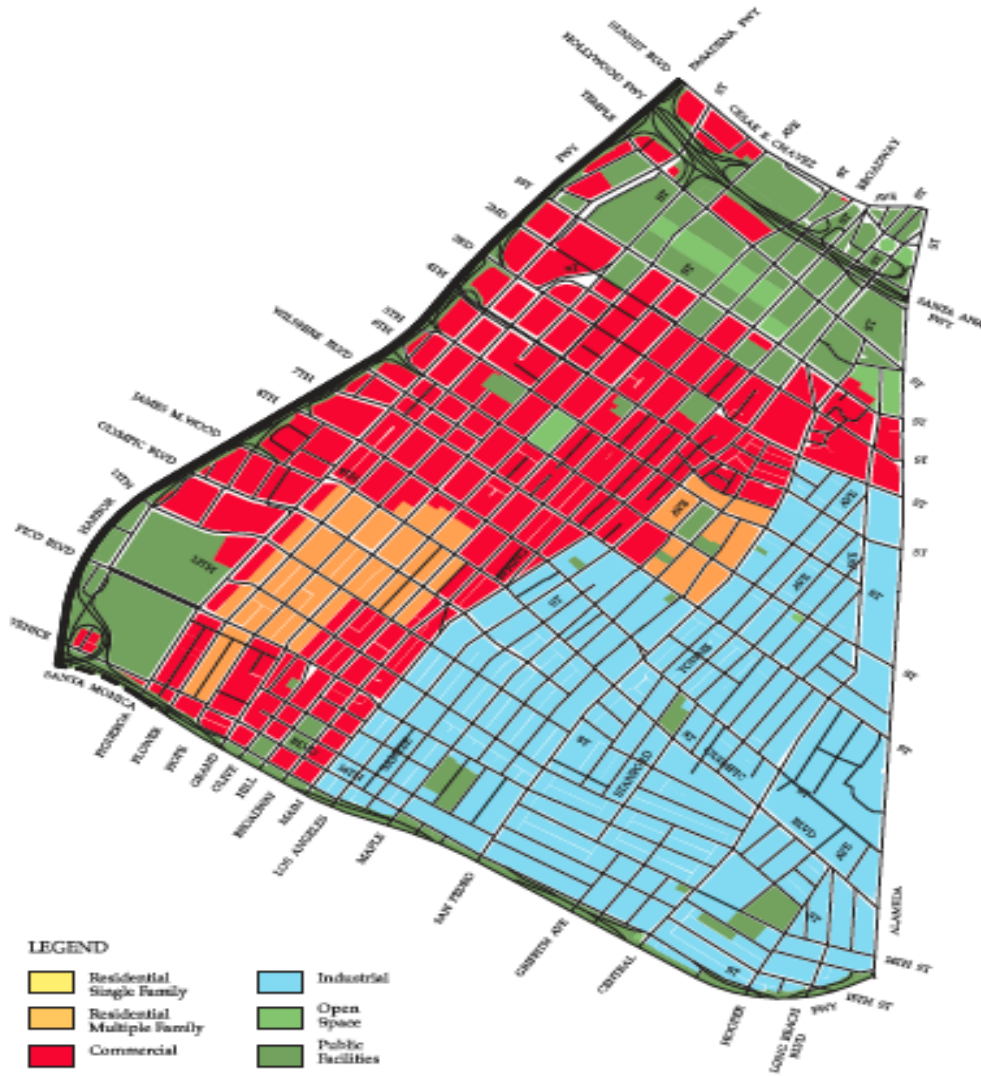
are unique in the sense that they are very pro-density and supportive of new development. Nirad Gupta adds “there is nowhere else in the country where the people are more pro-density. They know that increases in density will lead to improvements in the pedestrian environment.”⁹⁹

While Downtown does include places to work, eat, drink, shop, etc. its lacks places to sleep. The housing shortage and lack of affordable housing in Downtown and around Los Angeles as a whole have resulted from our antiquated development guidelines. This issue has been compounded by a growing demand for housing in Downtown. Data from the Census Bureau reveals that for the first time in over 60 years the population in Los Angeles grew at about the same rate in the city and suburban areas.¹⁰⁰ For the past fifteen years developers in Downtown have relied on the city’s Adaptive Reuse Ordinance (ARO), which has allowed them to bypass zoning codes and convert old buildings zoned for other uses into residential units. Since its approval in 1999, developers have added over 14,000 residential units to Downtown under ARO, and converted all buildings eligible under the ordinance. The updated zoning and community plans should build off of the success of the ARO by removing the excessive restrictions on housing development in Downtown. Below is a map depicting the zoning codes for sections of Downtown. All areas in blue are designated as industrial zones where residences are not allowed to be developed. The ARO has allowed for some residential conversion in the Arts District which was originally zoned for industrial use only. Adding housing units to this area has created pockets of layered urbanism with great walkability. The Planning Department needs to determine where it’s most prudent to retain industrial jobs in the area and when to allow for the spread of residential development and mixed use development. After speaking with Mark Vallianatos, who has written extensively on re-zoning Los Angeles, I believe an effective strategy would be to create a policy that allows for residential conversion in only a certain

amount of floor space. This should occur in neighborhoods with light, clean manufacturing where people and industry can feasibly coexist without harmful effects on human health. This will help alleviate the housing shortage while protecting the jobs of those who depend on industry. There are also some areas zoned as multi-family residential (orange areas on map) that do not allow commercial uses. Allowing commercial uses to exist on the bottom floor of these multi-family developments, granted that it does not displace people, should be allowed in all areas of Downtown.



Industrial Warehouse in Arts District converted into space for apartments, a gallery and theatre under Adaptive Reuse Ordinance (Photo credit: Shawn Dunn)



**GENERALIZED LAND USE
CENTRAL CITY**

Potential for mixed-use expansion¹⁰¹

In Downtown many residents are no longer able to afford their apartments, in a rental market that has become the least affordable in the country.¹⁰² The creation of additional housing units doesn't necessarily mean that housing will become more affordable. The California Courts decision in 2009 exacerbated this issue by ruling that city governments could not require developers to build low-income housing otherwise known as inclusionary zoning.¹⁰³ One effective strategy for preserving affordable housing is to offer incentives to developers. The

updated development guidelines should incorporate policies that incentivize developers to create more affordable housing. The Planning Department should follow the lead of new Corn Field Arroyo Seco Community Plan that has allowed projects to add value by being taller and denser, on the condition that developers agree set to aside a certain percentage of units at below market pricing. Having a distribution of incomes is crucial for an active street life. Speck elaborates on the importance of having a range of incomes in an area adding “sidewalks, like communities, thrive on diversity: different types of people use the streets at different times of day, keeping them active around the clock.”¹⁰⁴ Providing more housing units and affordable housing Downtown will also increase safety at night by attracting a diversity of people who will use the street during afterhours.

Get the Parking Right

In Downtown Los Angeles parking is provided at an extreme quantity based on the peak amount of demand for free parking.¹⁰⁵ In his book *Reinventing Los Angeles: Nature and Community in the Global City* Robert Gottlieb notes that the ratio of parking space to total land area in Downtown Los Angeles is 81 percent; higher than any downtown area in the world.¹⁰⁶ These parking areas either in the form of unsightly surface lots, or disguised as parking towers and underground parking, break up the city landscape creating zones that support only one type of activity, which is reserved exclusively for the car. The walkability of a street is harmed by parking lots for a multitude of reasons. Donald Shoup and Michael Manville, authors of *People, Parking, and Cities*, comment on the harmful effects of parking, “Instead of a building teeming with activity there is an expanse of asphalt ... where there could be something, there is instead not much ... it is inimical to density.”¹⁰⁷ Walking by a parking lot is an experience that

contradicts the four conditions of walkability outlined by Speck. When a pedestrian passes by a parking lot the area is not useful, safe, comfortable, or interesting. To make matters worse, Downtown Los Angeles requires a parking minimum for all developments regardless of their proximity to housing density or transit stations. The parking requirements vary by type of development; An office style development is required to build 2 spaces per 1000 square feet, while a restaurant must provide 10 spaces for the same amount of floor space.¹⁰⁸ These requirements are often the reason buildings are set back from the sidewalk sitting behind expansive lots, resulting in a walk that is inefficient and unappealing. In addition to harming the pedestrian landscape, parking minimums limit development and new businesses because the construction of parking spaces is very costly. The cheapest urban parking spaces in America cost an average of \$4,000 to create, and given the size of most parking lots in Downtown, this adds up to a sizeable amount of capital.¹⁰⁹ The high cost of parking construction is passed on to the consumer through everything from higher rent costs to higher food prices.

The most direct way to address the overabundance of parking in Downtown is to change zoning requirements. As mentioned in my previous step, the city is already working to update its zoning code, including a reform of parking policies. The ideal solution for the updated zoning code would be to eliminate the parking minimum. This approach would let the market determine how much parking is created, reflecting the actual demand for parking Downtown. Shoup and Manville highlight the benefits of removing the parking minimum noting, “A market-oriented approach to parking would eliminate cumbersome regulations, remove incentives to drive, and let city planners concentrate on matters that seriously demand their attention.”¹¹⁰ While this is an ideal solution, policy analysts suggest that parking reform will be a gradual process requiring incremental steps that may lead to a complete elimination of parking requirements.¹¹¹

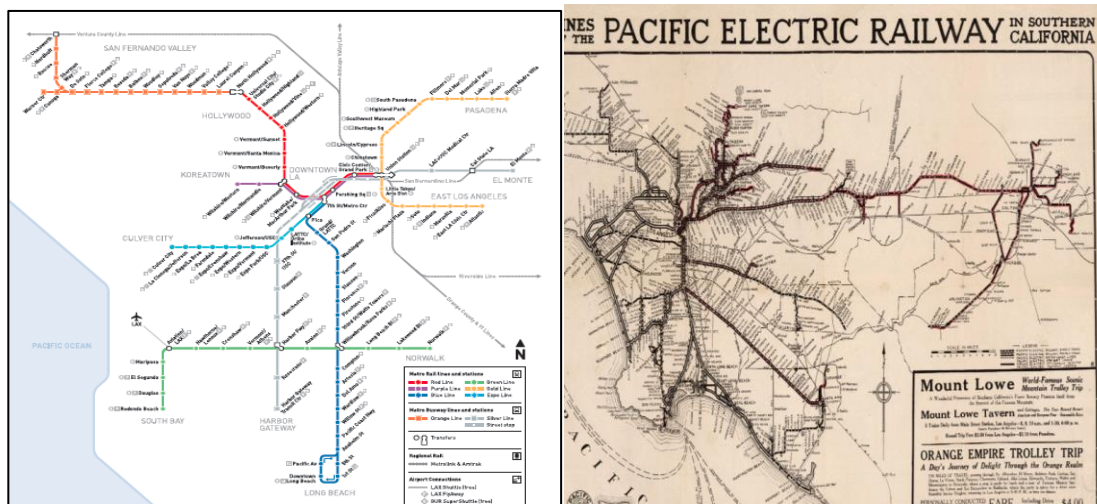
One step towards the elimination of the parking requirement has already been implemented in California, known as the state's "parking cash-out" program. This law can be particularly effective in Downtown Los Angeles, which has become increasingly transit accessible. Speck notes that one employer in Downtown saw its parking demand drop by 24 percent.¹¹² However, the success of parking cash-out has been limited because it only applies to businesses with over 50 employees. Donald Shoup, who developed the concept, believes the program can be made more effective by letting companies participate if they have as few as 10 employees. Los Angeles Times journalist Dan Weikel notes, "Studies show that more than 90% of commuters in Los Angeles and Orange County receive free parking at work." This statistic demonstrates the potential for expanding this program.¹¹³ By extending the program to businesses with fewer employees, as Shoup suggests, Downtown can greatly reduce its over abundance of parking.

The city should also work to implement market rate on-street parking through the creation of Parking Benefit Districts. This approach, which returns a portion of parking revenue from meters to the neighborhood, has proven to be very successful in Old Town Pasadena where funds have paid for improvements to the pedestrian landscape. Market rate parking also contributes to higher parking turnover generating more business for stores in Parking Benefit Districts.

Furthermore, spaces and lots that would no longer be in use can be repurposed into spaces that foster social interaction. Daveed Kapoor believes that the city needs to redevelop parking lots into something useful such as housing, retail, green spaces, or parklets. These areas would now become attractors of street life instead of repellents.

Let Transit Work

People walk more in cities that have well developed transit systems, because there is less reliance on cars. Transit benefits the walkability of cities by connecting walkable areas together, and by extending walkable corridors. Los Angeles was once home to one of the most expansive transit systems in the world. Downtown served as the hub for public transit, which resulted in the dense urban form we see today. Below is a comparison of the current rail system in Los Angeles with the more expansive Pacific Electric rail system in 1927. The city is now working to recreate a more comprehensive transit system. However, the current system is not an effective option for many Angelenos because it cannot transport people to different parts of the city in a timely manner.



(Metro Bus and Rail Line Map 2015)¹¹⁴

(Pacific Electric Rail Line Map 1927)¹¹⁵

Transit development in Los Angeles has made substantial progress since 2008 with the passage of Measure R, a half-cent sales tax for Los Angeles County projected to raise \$40 billion over 30 years to finance new transportation projects and programs. The Los Angeles County Metropolitan Authority has already developed a first mile-last mile strategic plan. The First mile-Last mile plan focuses on the mile before and after a person reaches a transit station. The

foundation of this plan is designed to facilitate easy, safe, and efficient access to the Metro system through enhancements of street infrastructure. Metro surveys indicate that more than 80 percent of Metro trips begin by walking to transit stations.¹¹⁶ This initiative will help Downtown by increasing walkability, transit ridership, and ultimately reducing our dependence on driving cars.

The demand for an improved public transportation system is so great that in 2016 the city plans to propose Measure R2, a 45-year county-wide half-cent sales tax that would generate an \$90 billion dollar for transportation funding. To have a successful transit system I recommend that the following points need to be addressed. Metro needs to expand the rail system to include stops in major city hubs such as LAX, the Burbank Airport, Warner Center in the San Fernando Valley. Expanding rail lines should be a no brainer for the city because it has proven to increase foot traffic, consumer spending, investment, and raise property values.¹¹⁷ The bus system should be improved by consolidating stops and increasing frequency, which will make a ride more time efficient. It must be noted that the city recognizes these problems and is working to address them. The city should also allocate a larger portion of Measure R funds towards funding for pedestrian projects such as the First Mile-Last Mile initiative. Currently Los Angeles only dedicates a small portion of Measure R 'local returns' (10 percent) towards funding for bicycle and pedestrian projects.

Protect the Pedestrian



Going from this...¹¹⁸



To this!¹¹⁹

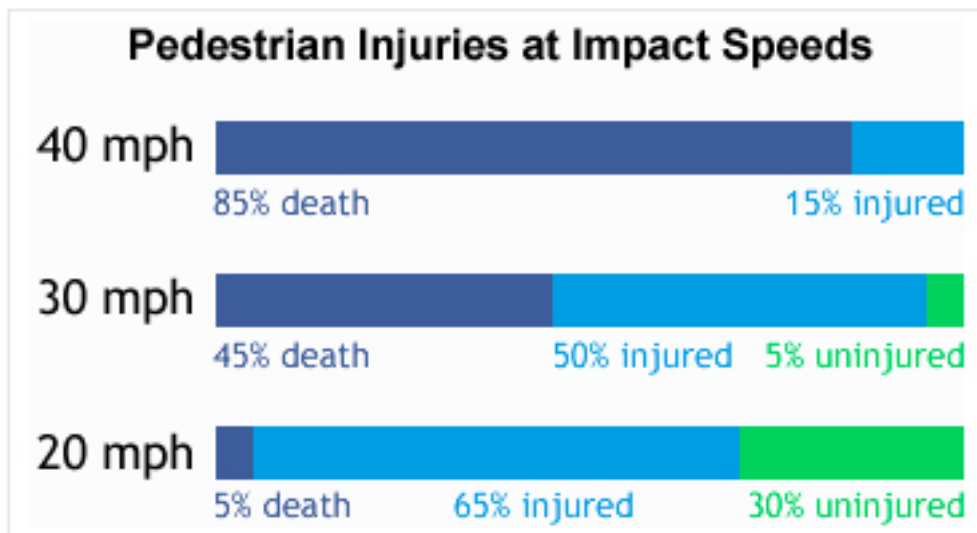
The biggest safety hazard to pedestrians in downtown is cars. In 2012 Los Angeles ranked second in America for number of pedestrians killed by vehicles according to statistics released by the U.S. Department of Transportation.¹²⁰ By incorporating Complete Street policies into our street designs we can create streets that are safe, convenient, and accessible for all users

of the road. There are a number of ways that the city can repurpose streets to create safer environments for pedestrians. One solution is to implement road diets on streets that are four lanes or more. A standard style road diet conversion for these streets would leave one lane of traffic in each direction, a center left turn lane when necessary, and create additional space to expand sidewalks, add bike lanes, plant trees, or create parking lanes. Road diets have been successfully implemented on a few streets Downtown, with the most notable being Broadway Street. Before the ‘Bringing Back Broadway’ revitalization plan broke ground in 2008, the existing street configuration consisted of five lanes of traffic: three lanes running northbound and two lanes southbound (1st picture above is Broadway circa 2008). Over the last seven years the five lanes of traffic on Broadway have been converted into three travel lanes, two northbound and one southbound, creating surplus space for sidewalk extensions, curb extensions, and parking/loading zones. These improvements have reduced traffic speeds, shortened pedestrian crossing distances, and provided on-street parking that serves as a barrier between the sidewalk and traffic. The City Planning Department should follow the lead of the Broadway Street redesign and apply this strategy to other streets across Downtown.



Road diet conversion making spaces for people on Broadway Street (Photo credit: Shawn Dunn)

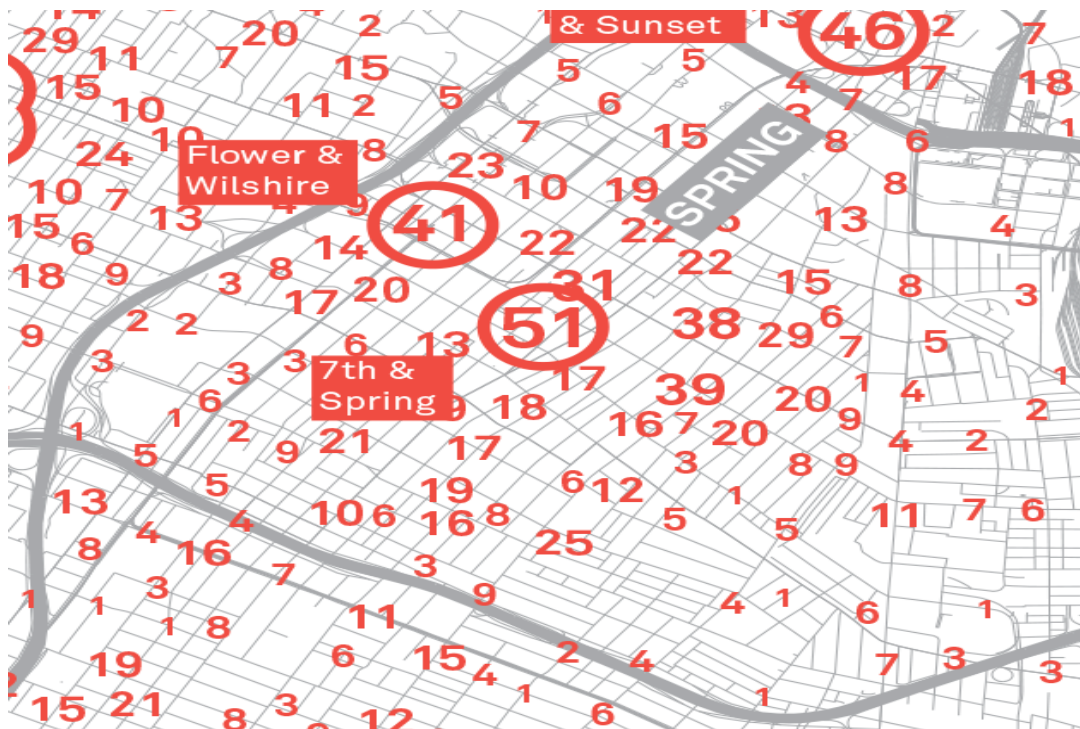
There are also a few other improvements that can significantly increase pedestrian safety. There are a large number of one-way streets in Downtown that have effectively turned urban roadways into surface freeways. Pedestrians will greatly benefit by replacing one-way streets with two-way systems. This would lower traffic speeds, reduce congestion, and make the city much easier to navigate. Eliminating anti-gridlock zoning in areas with high concentrations of pedestrians would also reduce speeds while retaining protective on-street parking. There should also be an implementation of 20 mph speed limits in areas with high pedestrian traffic; this would significantly reduce injuries and death caused by pedestrian vehicle collisions. The picture below depicts how driving speeds correlate to the risk of injury or death. David Kapoor also notes that the city’s recent crackdown on jaywalking is the result of a lack of mid-block crossings and traffic signals that do not allow pedestrians enough time to cross. The city needs to work to add mid-block crossings on overly long blocks (Appendix A Q13) and extend the amount of time on crossing signals.



Why we should have 20 mph speed limit in pedestrian dense areas of Downtown¹²¹

The city should prioritize improvements for pedestrian safety in areas that pose the highest risk to people. Below is a map showing the number of pedestrian-vehicle collisions

between the years 2003 and 2009. The intersection of 7th and Spring Street was the most dangerous intersection in Los Angeles over this span of time, with a recorded 51 collisions. In 2014 the Los Angeles Department of Transportation released its Strategic Plan with a goal to implement a “Vision Zero” policy of eliminating all traffic fatalities in the city by 2025.¹²² This plan is still in its early stages but is a positive sign of LADOT’s commitment to changing the way streets are designed.



Pedestrian-vehicle collisions between 2003-2009 Downtown Los Angeles¹²³

Cars are not the only safety concern for pedestrians. Downtown ranks as one of the top areas for incidences of crime in Los Angeles County.¹²⁴ Skid Row and the Historic Core have the highest rates of personal and property crime in the Downtown area. According to my survey many people do not feel safe walking at night in areas where there are large numbers homeless people, because these are areas where crime is most likely to happen (Appendix A Q’s 8&9).

The city needs to create a solution for reducing crime without displacing lower income and homeless people.

Welcome Bikes

Biking is beneficial to walkability because it improves street conditions for all forms of non-motorized transport. The addition of bike lanes has been proven to increase traffic safety because it makes drivers proceed more cautiously. Bike lanes can be used to resize overly wide lanes or reduce the amount of lanes in multi-lane systems—both of which cause drivers to speed. Earlier this year, the first protected bike lane in Los Angeles was installed on a portion of Reseda Blvd in Northridge as part of the Mayor’s Great Streets Initiative. A road diet conversion on this street opened up space for the protected bike lane. The parking lane was moved from being adjacent to the sidewalk, to the left of the buffered bike lane.

Bicycle infrastructure is gaining support statewide, demonstrated by Governor Brown’s passage of the *Protected Bike Lane* bill last year. This bill requires that protected bike lanes become an official part of Caltrans guideline on bicycle infrastructure.¹²⁵ Protected bike lanes increase cycling ridership, safety, and decrease the number of sidewalk riders who pose a risk to pedestrians. The city now needs to work on expanding its network of bike lanes in order to make cycling a feasible and safe form of transport.



First protected bike lanes in city of Los Angeles, part of Great Streets Initiative¹²⁶

Shape Spaces/ Spaces for pedestrians

A sense of enclosure makes people feel comfortable walking in a city. Neighborhoods that are framed by a continuity of buildings on both sides of the street create environments that foster pedestrian activity. Some areas in Downtown, such as the Historic Core and Little Tokyo provide this spatial enclosure, which is the reason why many people and businesses gravitate to these areas. The biggest disrupter of buildings is parking lots. As mentioned earlier, Downtown has an overabundance of parking spaces that create holes in the building framework. In many cases parking lots have either replaced buildings entirely or have resulted in isolated buildings surrounded by parking. For this reason the updated zoning code should eliminate on site parking requirements, and also require that buildings come right up to the sidewalk. Parking should be moved to the back of buildings or to the streets, allowing main streets to have continuity of building facades. The new code should also require existing surface lots to be fronted by a building façade, hiding parking from the street.

Public spaces are also another important factor in attracting pedestrians and encouraging them to stay. Sidewalks are a public space where pedestrians spend most of their time, however they are neglected and underutilized in most parts of Downtown. In April of this year the city settled an Americans Disabilities Act lawsuit and agreed to spend \$1.2 billion dollars over the next 30 years to repair damaged sidewalks. This will make sidewalks more accessible for everyone, particularly those with mobility disabilities. Sidewalks can also be transformed into hot spots for social interaction if the right components are provided. Outdoor dining, benches, and parklets (expansion of pedestrian amenities onto one or more street parking spaces) provide areas that invite people to relax and enjoy their surroundings. In an article chronicling the

reemergence of pedestrian spaces in Los Angeles, Christopher Hawthorne includes the sentiments of a local restaurant owner, George Abou-Daoud, describing the process of adding sidewalk seating as a difficult and endless battle with the city's Building-Safety Departments. Abou-Daoud added, "It's always been so surprising to me that in the city that has probably the best weather in the world, there isn't more outdoor seating for restaurants, pocket parks, public squares, etc.,"¹²⁷ The city should work to expedite the process of adding public amenities to the sidewalks such as seating and parklets. Converting unused plots of land and parking lots into pocket parks or pedestrian plazas also create areas for people to gather and enjoy themselves.



Spring Street Parklet¹²⁸

Plant Trees

The landscape in most areas of Downtown is lacking in tree coverage. My survey results revealed that 53 percent of the respondents felt that there were only trees about half the time where they walked in downtown (Appendix A Q17). 31 percent of the respondents said that there are seldom or never trees where they walked in Downtown. Trees are particularly advantageous in Los Angeles with its high temperatures, concentration of pollution, and number of pedestrian-

vehicle collisions. Trees provide shade, reduce pollution, serve as barrier between cars and pedestrians, and add to the aesthetic appeal of streets. Nearly nine years ago former Los Angeles Mayor Antonio Villaraigosa pledged to add a million trees to Los Angeles over the course of his time in office under his Million Trees Initiative. As of 2013 the city has planted over 400,000 trees, not quite the goal, but a step in the right direction. Downtown should create a goal similar to Speck's recommendation of creating a continuous canopy for streets. A continuous canopy can be achieved by planting trees of the same species at appropriate intervals to allow for the upper branches to interconnect creating overhead coverage and ample shade. The Los Angeles Bureau of Streets Services Forestry Division has created a list of 150 acceptable trees to plant alongside public city streets.¹²⁹ Downtown needs to work to add drought tolerant species from this list throughout its streets. Tree species for each street should be selected depending on location context. For example, trees with large canopies should be avoided in areas with historical buildings so the view for visitors is not blocked. Decades ago, before the list of acceptable trees was updated, the city planted thousands of *Ficus* trees throughout Downtown. Now that these trees are coming to maturity their top-heavy root systems are tearing up sidewalks and costing millions of dollars of damage to pedestrian infrastructure. Replacing *Ficus* trees with approved species will help reduce further damage and save the city millions of dollars in sidewalk repair.



Tree-lined boulevards of Paris¹³⁰

Make Friendly and Unique (Building) Faces

In order to create pedestrian oriented neighborhoods buildings need to be interesting and inviting. In the book *City Comforts* author David Sucher lists building ‘permeability’ as one of the most important factors for creating walkable streets. Permeability refers to buildings that have large transparent windows that catch the attention of pedestrians and doors oriented towards the sidewalks that make it easy them to enter and exit businesses. Awnings and seating also help by “blurring the distinction between public and private while drawing out the experience of entering and exiting.”¹³¹ In Downtown Los Angeles many developers are still constructing buildings “fronting the sidewalk with rough concrete, tinted glass, and other such nastiness” that make their facades characterless and uninviting.”¹³² Geoff Palmer, one of the largest developers in the city, is known for building “fortress” like, inward facing apartments complexes that take up full city blocks. These buildings are notorious “for the skybridges that keep tenants off of the streets and sidewalks; their street-level retail spaces [that] sit mostly empty; their many