

Alley Guide and Design

By: Garrett Johnson



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This guide aims to draw attention to alleys and how they can benefit residents on a city and community level. Over the past two centuries, urban design has focused on the vehicle and moved away from the human scale.

Urban planners and designers have recently focused on getting people out of their cars and onto the sidewalks. Alleys present an opportunity for jurisdictions to address the triple bottom line and housing.

Methodology

The methodology consisted of four elements:

- **Experience-** I am an intern at the Pico-Union housing Corps mentioned in this capstone for full disclosure. My experience there has equipped me with the knowledge of starting a green alley project from scratch. I relied on resources from the organization to gather materials for this capstone.
- **Visiting-** I saw a dozen alleys in Los Angeles, New York, Philadelphia, and Washington DC throughout the semester. During my visits, I witnessed the work done to clean and transform alleys, and I also visited alleys in their current state in various weather types.
- **Talking-** An element I wanted to add to this capstone was conversations with people involved with green alleys. The discussions are now in a podcast for the Sustainable Urban Planning Student Organization at George Washington University. There are questions on the planning stage, the process for funding, gathering community support and input, and steps on getting to the result.
- **Researching-** I used a variety of mediums for studying this capstone. The research includes books, planning journals, news websites, magazine articles, government websites, city general and green plans, community organization blogs, for-profit and nonprofit press releases, maps, libraries, archives, and historical references.



Types of Public Engagement

- **Public Meetings**
 - Online
 - In Person
- **Focus Groups**
- **Survey's**
 - Online
 - Telephone
 - Social Media
 - Mail
 - Interviews
- **Workshops**
- **Polling**
- **Open House**
- **Exhibits**
- **Demonstrations**
- **VR and Augmented Reality**

Public input is essential to the longevity of any alley project. If the public is not engaged, you may face opposition. Seek out a community member who has their pulse on what's going on. This could include the neighborhood elder, neighborhood association resident, or local hair salon.



When considering an alley project, the second step is determining what type of alley project you want.

Projects should consider the triple bottom line and housing. Along with equitable representation.

What if we...?

Environment | Social | Economic | Housing



Environment

Home to 1,900 miles of public alleys, Chicago has set the course on green alleys in the U.S. Green alley projects mitigate the effects of stormwater runoff and flooding.

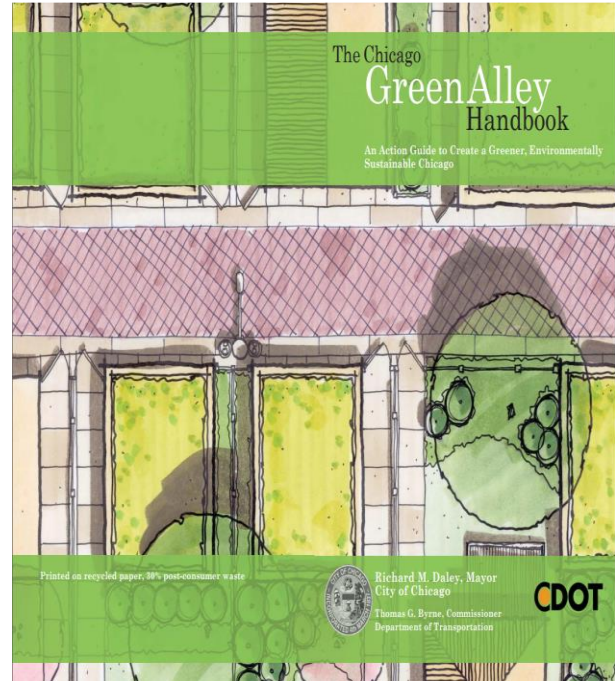
The city wanted to achieve five goals in its overall green alley plan: Stormwater Management, Heat Reduction, Material Recycling, Energy Conservation, and Glare Reduction. The city provides a guide on creating and managing an alley.

Here are the highlights of the guide:

1. Proper drainage that is adequately pitched and graded.
2. Install permeable pavement
3. To reduce the effects of the urban heat island effect, Chicago used pavement with a high albedo*
4. Use recycled construction material
5. Use energy-efficient lighting pointed downward to reduce light pollution.

The [Chicago Green Alley Handbook](https://www.chicago.gov/content/dam/city/depts/cdot/Green_Alley_Handbook_2010.pdf) gives application examples and diagrams of helpful design practices that connect with the guide's best management practices (BMPs) on properties. These can range from recycling to installing a rain garden, which can help alleviate flooding.

https://www.chicago.gov/content/dam/city/depts/cdot/Green_Alley_Handbook_2010.pdf



*Albedo: an expression of the ability of surfaces to reflect sunlight (heat from the sun). Source: www.npolar.no

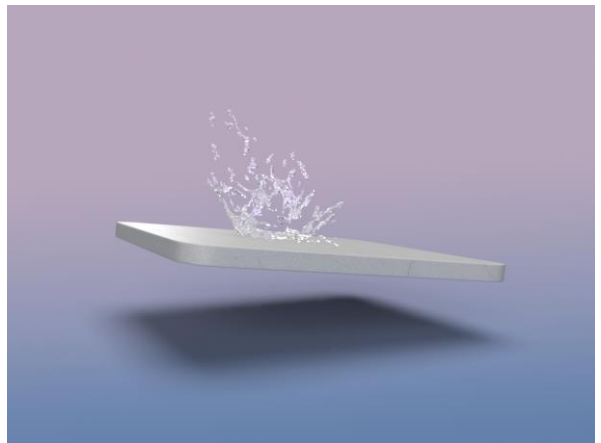
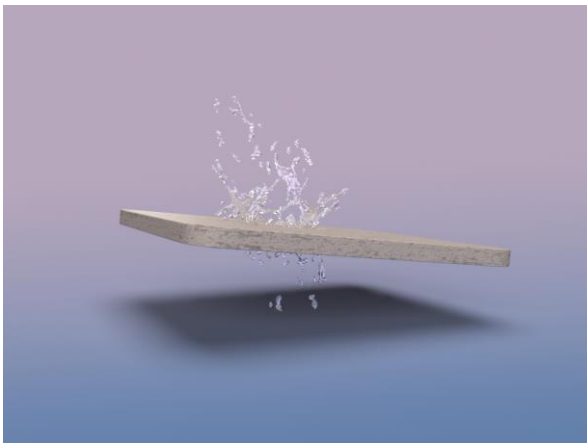


Green Infrastructure

A common issue with alleys is the surface deterioration due to vehicles and weather. Green infrastructure can mitigate some of the damage and look aesthetically pleasing.

The Forth River Purification Board survey indicates that more than 14% of unsatisfactory river water is due to stormwater runoff in urban areas (Anyunes, Ghisi, Thives, 2018).

If an alley is prone to flooding using a surface type known as permeable pavement (PP), a kind of pavement that absorbs liquid will provide the needed stormwater management.

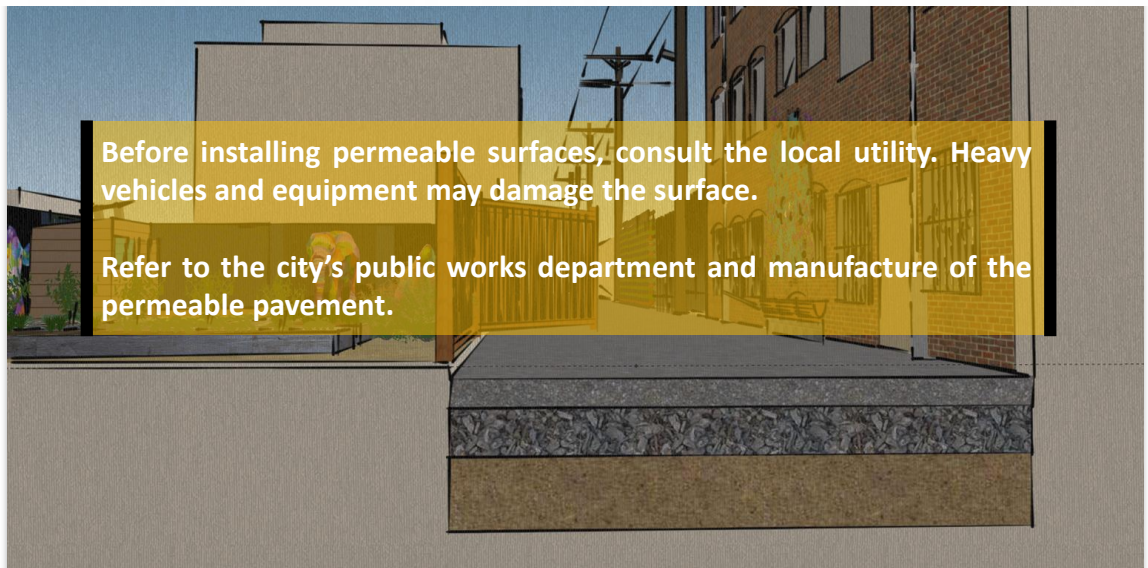
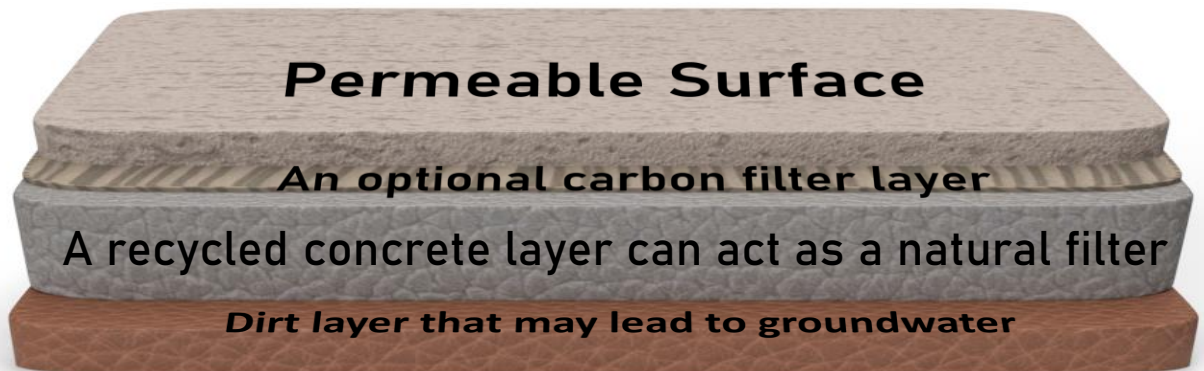


See how the image on the left absorbs water instead of running off the surface like the image on the right? A few of the benefits of permeable pavements:

- PP reduces stormwater surges in alleyways.
- Filters debris and pollutants from runoff.
- Surfaces that are porous recharge groundwater because stormwater is not running off into the storm drain.
- Can help reduce localized flooding.

Source: Chicago Green Alley Handbook page 29.





Parameter	Reduction of Pollutants (%)
Biochemical oxygen demand	80–83
Cadmium	0–34
Chemical oxygen demand	88
Chrome	87–88
Copper	42
Heavy metals	90–99
Hydrocarbons	95
Lead	50–98
Nitrogen	75–85
Oil	97–98
Phosphorus	65–71
Suspended solids	80–99
Total organic carbon	82
Zinc	62–99
Source: Permeable Pavements Life Cycle Assessment: A Literature Review (Antunes, Ghisi, Thives 2018)	

The chart above comes from Permeable Pavements Life Cycle Assessment:

A Literature Review (Antunes, Ghisi, Thives, 2018) shows the filtration percentage of a given pollutant when using permeable pavers. Regions, cities, communities, municipalities, and developers should include permeable pavers as storms become more severe due to climate change.

As a policy, incorporate green alleys into a city's or a region's environmental and general plans.



Lighting

Alleys should be equipped with motion-sensitive lighting that dims when not in use. Outdoor lighting and porch lights should be solar-powered and fitted with covers to control the direction of the light rays. The goal is to increase safety in a well-lit alley while minimizing light pollution.



“Painting surfaces such as roofs and pavements white or otherwise adding a reflective coating can be an effective way to increase the albedo of urban areas. Doing so has been demonstrated to reduce the urban heat island effect, which leads to cities experiencing temperatures above those of surrounding areas due to the heat-absorbing characteristics of buildings and infrastructure along with reductions in air circulation and evaporative cooling due to sparse greenery.

As more people are projected to move into cities in the coming decades, urban albedo enhancement seems likely to be a particularly important adaptation strategy for cities to pursue (Sarah Pearl, 2019).”



Climate Institute



Like the permeable pavers, rain gardens are an excellent element any green alley should have in their tool kit if possible.

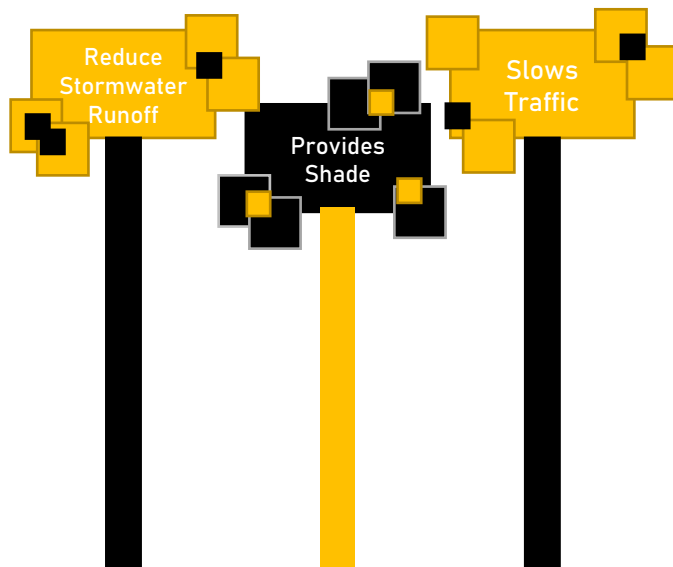
Rain Gardens absorb, filter, and hold stormwater. Native vegetation attracts pollinators, and they require less water.

It may not be easy to install, however. Some jurisdictions require setbacks or specific land use designations. Work with officials and regulators to adopt rules that are not a “one size fits all.”

Educate local leaders about the benefits of rain gardens and suggest small-scale pilot programs.

Photo source: LA Times

The Dry Garden: Elmer Avenue becomes Green Street, a water-wise and solar-lighted community effort



The concept of food deserts has garnered much attention over the years. According to usafacts.org, "about a third of people in food deserts, 17.2 million people, live more than a mile away from the nearest urban food store or at least 20 miles from the nearest rural food retailer. Six percent of Americans are in these more extreme food deserts. Urban residents account for 16.9 million people (USAfacts.org, 2021)."

Supermarkets may not be practical for some regions or can't come soon enough for others. Revitalizing alleys as urban gardens is a concept spreading across the U.S. as a possible solution. In DC, a group of residents in Columbia Heights transformed a neglected vacant lot into [Columbia Heights Green](#). This garden has grown from individual plots to a neighborhood agricultural center. The garden opened on September 11, 2010, and according to their site, in 2019, they "produced over 750 pounds of organic food, and (their) partners at the University of Maryland AgroEcoLab conducted a study of our crops' nutritional profiles in connection with dietary surveys (conducted by CHG volunteers) of (their) food-insecure neighbors (Columbia Heights Green, 2020). This project has opened doors for partnerships with Martha's Table, a nonprofit that provides education, food, and health opportunities. Along with Jubilee Housing, which offers affordable housing and supportive services.

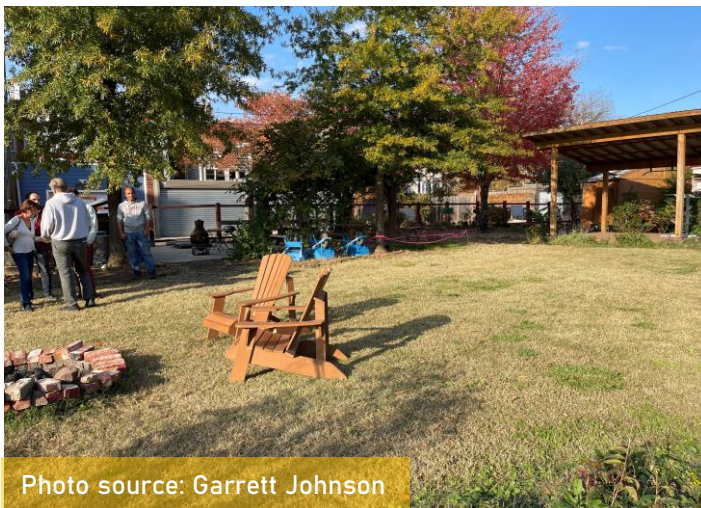


Photo source: Garrett Johnson



Columbia Heights Green currently features:

- Seven raised-bed farm areas — all certified organic soil enriched by compost generated on-site
- Hoop house for winter and early spring crops
- Farm shed
- "Spice Lady" memorial healing garden and herb beds
- Orchard featuring figs, persimmon, plum, and service/juneberries, plus sapling elderberries, paw-paws, and American pomegranates
- Berry City features blueberries, wineberries, raspberries, blackberries, kiwi, and passionfruit
- Native perennial & pollinator gardens
- Stage and canopy for performances or events
- Pavilion/outdoor classroom and picnic tables
- 3-part organic hot-compost system
- Firepit and lawn
- Native-plant rain garden
- 660-gallon rainwater cisterns attached to a solar-powered pump
- External "guerilla garden" for public use & harvest



Photo source: Washington Parks and People



On the other side of the U.S., in Los Angeles, California, the Pico-Union Economic Development Enterprise Center, or PUEDE Center, is taking the concept of gardening in a different direction. The center brings the limited space and uses vertical trellises in their idea for a green alley. Their goal is to turn trash-filled alleys into urban garden centers for the Pico-Union neighborhood in L.A. The [PUEDE Center](#) Green Alley project was one of five California communities to receive an EPA grant for environmental justice.

Those are examples of two different approaches to alley gardens, yet they both are looking to obtain the same goal. Both organizations utilize limited resources and space to clean up a forgotten cityscape and bring healthy food to the community.



Photo source: PUEDE Center





Social

Art projects can bring neighborhoods or a community together by allowing them to participate in the process. Public art should amplify the voices of community members and increase representations.



Here are two examples of alley art projects. The first is a project sponsored by 8 80 Cities, a nonprofit organization that builds better communities for people 8 to 80 years old. In San Jose, CA, Fountain Alley connects to the heart of the Historic District. Fountain Alley has the potential to connect the historic downtown to a proposed BART (Bay Area Rapid Transit) Station. The idea was to activate the alley to demonstrate its potential as a community collaboration project. Read more about it by following this link: <https://www.880cities.org/work-progress-neglected-alley-open-gallery-downtown-san-jose/>.

The second project was a joint effort with the Rockwell Museum in Corning, NY, and the High School Learning Center of the Corning-Painted Post Area School District. The Rockwell Museum held workshops that taught students about the artwork in the museum and then commissioned murals inspired by the works. This led to the creation of the Alley Art Project and the Alley Art Project scavenger hunt. Students also earned credits toward their high school diplomas. Read more by following this link: <https://rockwellmuseum.org/alley-art/>.



Image credit: Rockwell Museum



Alleys should be incorporated into slow street designs. “**Slow Streets**” is a strategy to get people out of the car by using active* or semi-active modes of transportation.

Block off an alley at certain times, or altogether, for bikes, scooters, pedestrians, or skateboards. Implementing Slow Streets allows commuters to interact with the neighborhood and reduce dealings with vehicles.



*Active Transportation describes all human-powered forms of travel, such as walking, cycling, in-line skating, and skateboarding.



Social



Look into your communities history for ideas on social events. There might be lunar new year celebrations, cultural significance holidays, or city founders day.

Southside Chicago did this with its alleys for an event called **Back Alley Jazz**. The current event carries the legacy of a gathering starting from 1950 to 1980 in Southside Chicago. Between Champlain and St. Lawrence on 50th street, residents gather to hear the sounds of jazz and conversations, eat and drink, gamble, and play.

Until 1980 when the police disbanded the gathering, the alley jazz event happened every Sunday and would host people from all walks of life. Today, Back Alley Jazz celebrates the past and brings new jazz artists to the neighborhood. They partner with Universal Alley Jazz Jam, are the direct descendant of the original **Jazz in the Alley** performances, and **Ladies & Gentlemen of Jazz**, a group of D.J.s and record spinners. They were also part of the Jazz Alley scene.

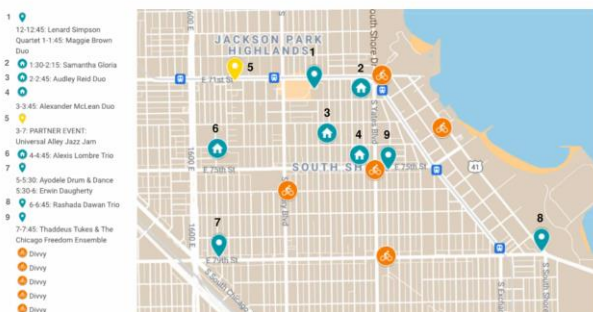


BACK ALLEY JAZZ

Back Alley Jazz is a one day event that was inspired by the original jazz alley jams that took place in various locations on the South Side of Chicago in the 1960s and 70s. The event consists of pop-up concerts throughout the South Shore neighborhood.

BACKGROUND

BACK ALLEY JAZZ



MAP OF PERFORMANCES



Chicago Loop Alliance reimagined this space as a social gathering. The group hosts **ACTIVATE**, an event that transforms alleys in Chicago into displays for local art, dance floors and stages for performances, lively interactive exhibits, and food.



Photo Source: <https://loopchicago.com/in-the-loop/chicago-loop-alliance-announces-return-of-major-programs-and-more-at-2022-annual-meeting/>



Alleys can be a place for communities to gather and socialize. It's a localized space to exchange news on family members, the "going on" of the neighborhood, and those "eyes on the street" that Jane Jacobs often writes about (Jacobs, 1961). An alley creates an informal place in the back of houses. Unlike the front yard, which in many American suburbs is a formal setting, the alley provides the freedom to relax.

Large infrastructure projects or complex events are not feasible for some communities. To increase social activity, hold neighborhood alley cleanup events to give the alley a welcoming environment. The space can be used for conversations or as a safe place for children to play when traffic is blocked temporarily.



The alley dwellings of the 1940s drew families of modest means. (Edwin Rosskam/Library of Congress)

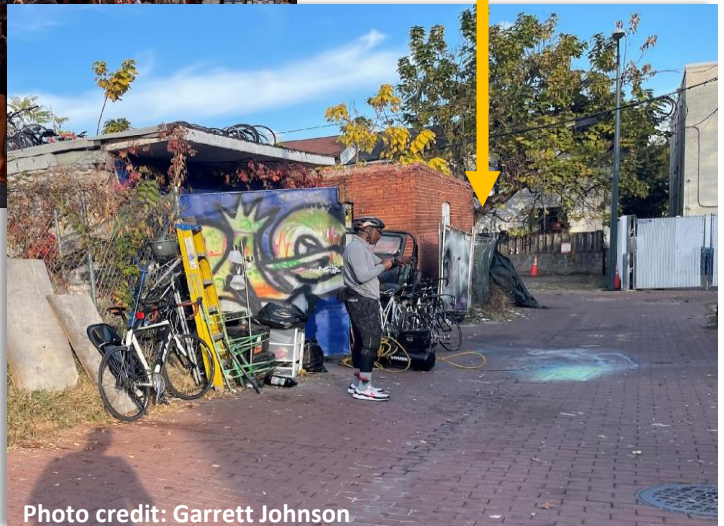




Economic



A bike repair shop
in an alley, D.C.



In the Fashion District of Los Angeles, **Santee Alley** houses over 150 stores that sell everything from handbags, shoes, and luggage to toys, games, and electronics. "The Alley," as it is colloquially called, started in the 1970s and '80s in the wake of the 1979 Iranian Revolution, and immigrants set up shop in the alley selling wholesale fashion items. The location is now an eclectic mix of people, objects, and food venues. The alley is open from 9:30 am to 6:00 pm every day. The Santee Alley is an excellent example of how alleys can be used for commerce and is like alleys found in Japan.





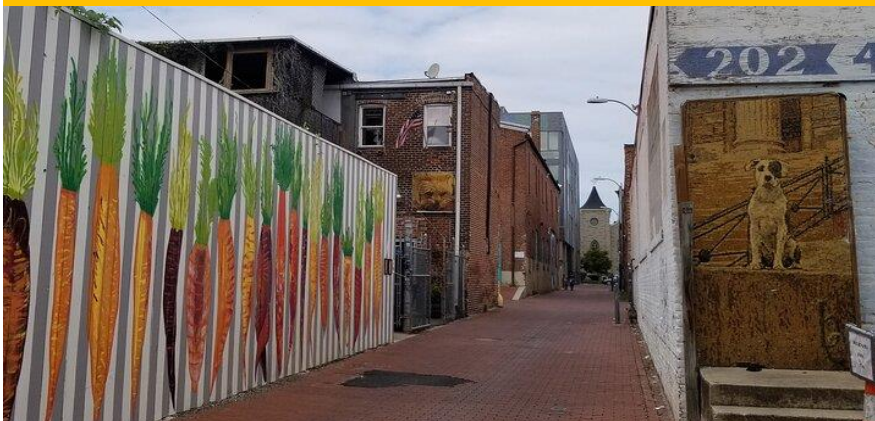
During the height of the COVID-19 pandemic, when indoor dining was not allowed in most localities, restaurants used alleys as outdoor dining rooms. As more cities lifted indoor dining restrictions, many restaurants kept the outdoor seating.

In Seattle, the Washingtons alley activation proposal emphasized that a clean, safe alley encourages people to explore more of the city and take enjoyable routes (Fialko and Hampton, p.5, 2011). Having more people on the street benefits local businesses that being in a car would overlook.





Alley can be part of tours to showcase a community's history. The photo above is the oldest alley in the US. Elfreth's Alley, in Philadelphia, PA, is within walking distance of Independence Hall. The alley below is a stop on a tour in Washington, DC. This is one of several alleys on the tour.





In Pasadena, CA, an alley was repurposed into a pedestrian walkway that connected the Memorial Park Metro Station to Old Town Pasadena. The alley was named **Big Bang Theory Way** after the TV show whose setting is in Pasadena. These types of connections increase foot traffic to shops and restaurants.





“**Yokocho** is Japanese for “alleyway,” but it has grown in meaning to refer to the narrow streets packed with izakaya's, bars, and eateries tucked away in Japan’s busy streets.” - gotokyo.org





Housing

Some cities have taken on a different approach to their alleys in the form of Accessory Dwelling Units (ADUs). The units are detached or attached from the primary residence and are for rent or leased. ADUs range in size but are generally on the smaller side because they are in the back of the primary unit. These units date back to early urban designs where servants or carriage handlers lived. Immigrants in New York, San Francisco, and Chicago in the late 1800s and early 1900s lived in dilapidated units in alleys. Today, some consider ADUs to solve low housing inventory and affordability. Unfortunately, this presents its own issues. ADUs could solve supply issues but raise traffic if there is inadequate public transportation. Some ADUs cost just as much as their primary counterparts, making them unaffordable.





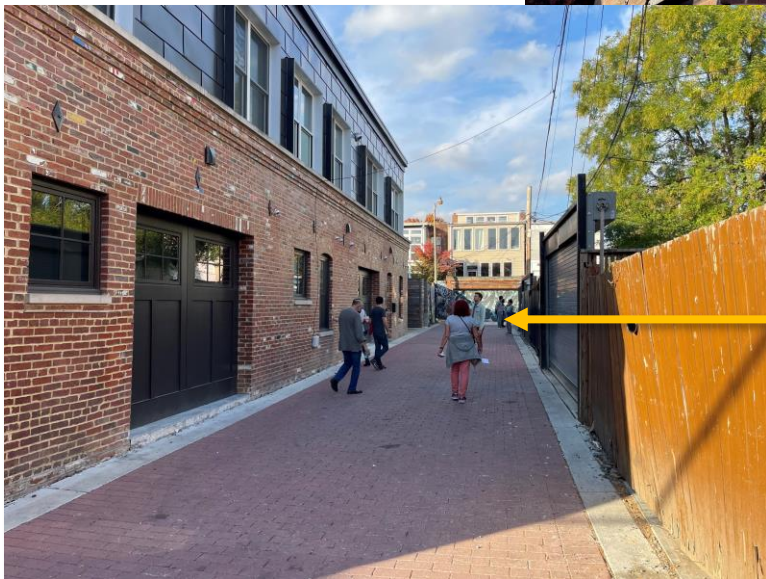
An example of a mix used ADU in an alley, D.C.

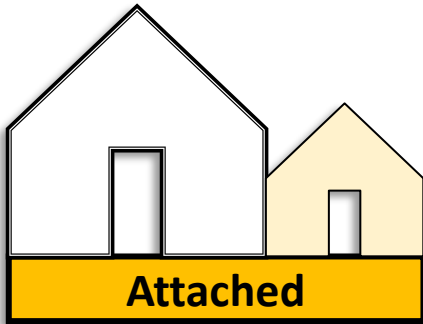
Office and retail space

Notice the permeable surface



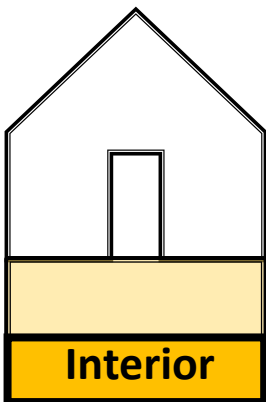
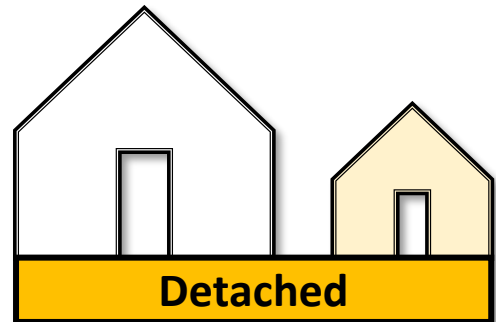
Walkable and housing





Units that are attached to the primary structure

A separate, exterior, stand-alone structure on the main home's property. Example: tiny homes, cottages, or detached garages.



Located in the primary dwelling, it is built from existing, converted space, usually in the attic or basement.

Empty Nesters see ADUs as an opportunity to rent out the main house to supplement income or rent out the ADU to their adult children.



Instead of a nursing home or assisted-living facility, **individuals in need of care** can reside in an ADU (or **home health aid**).



Home-based workers can use ADUs as an office or workshop.



Families with young children can use ADUs for Nannies or grandparents for childcare.



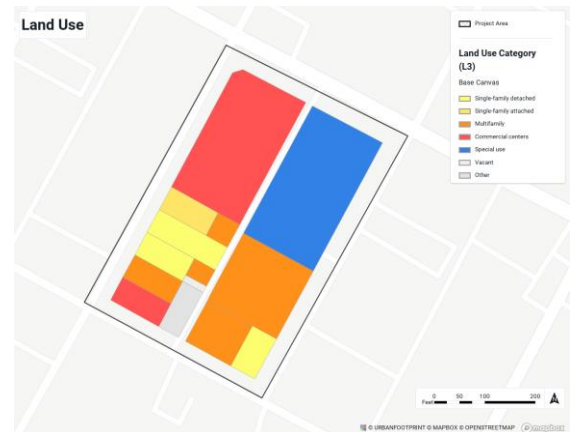
Homebuyers can see ADUs as an income generator for home improvements or help with their mortgages. Homebuyers



Homeowners can use an ADU for guests or as housing for friends or loved ones.



- Cities need to investigate their current policy on ADUs, as many are outdated or not suitable for the current housing environment. In 2020, the Chicago City Council Committee on Housing and Real Estate authorized an Accessory Dwelling Unit three-year pilot program in five zones throughout Chicago.
- Providing an overlay zone for ADUs will allow cities to control growth and traffic.
- Planners need to look at all departments at their disposal for green alley projects. These include the Departments of Transportation and Metro for pedestrian and vehicle management, the Department of Recreation for community activities, streets, and sanitation for insight on waste and stormwater management.





Below you will find resources on ADUs

The Public Policy Institute and AARP provide an Accessory Dwelling Unit Model State Act and Local Ordinance guide

https://assets.aarp.org/rgcenter/consume/d17158_dwell.pdf

The ABCs of ADUS

A guide to Accessory Dwelling Units and how they expand housing options for people of all ages

<https://www.aarp.org/content/dam/aarp/livable-communities/livable-documents/documents-2019/ADU-guide-web-singles-071619.pdf>

dweller

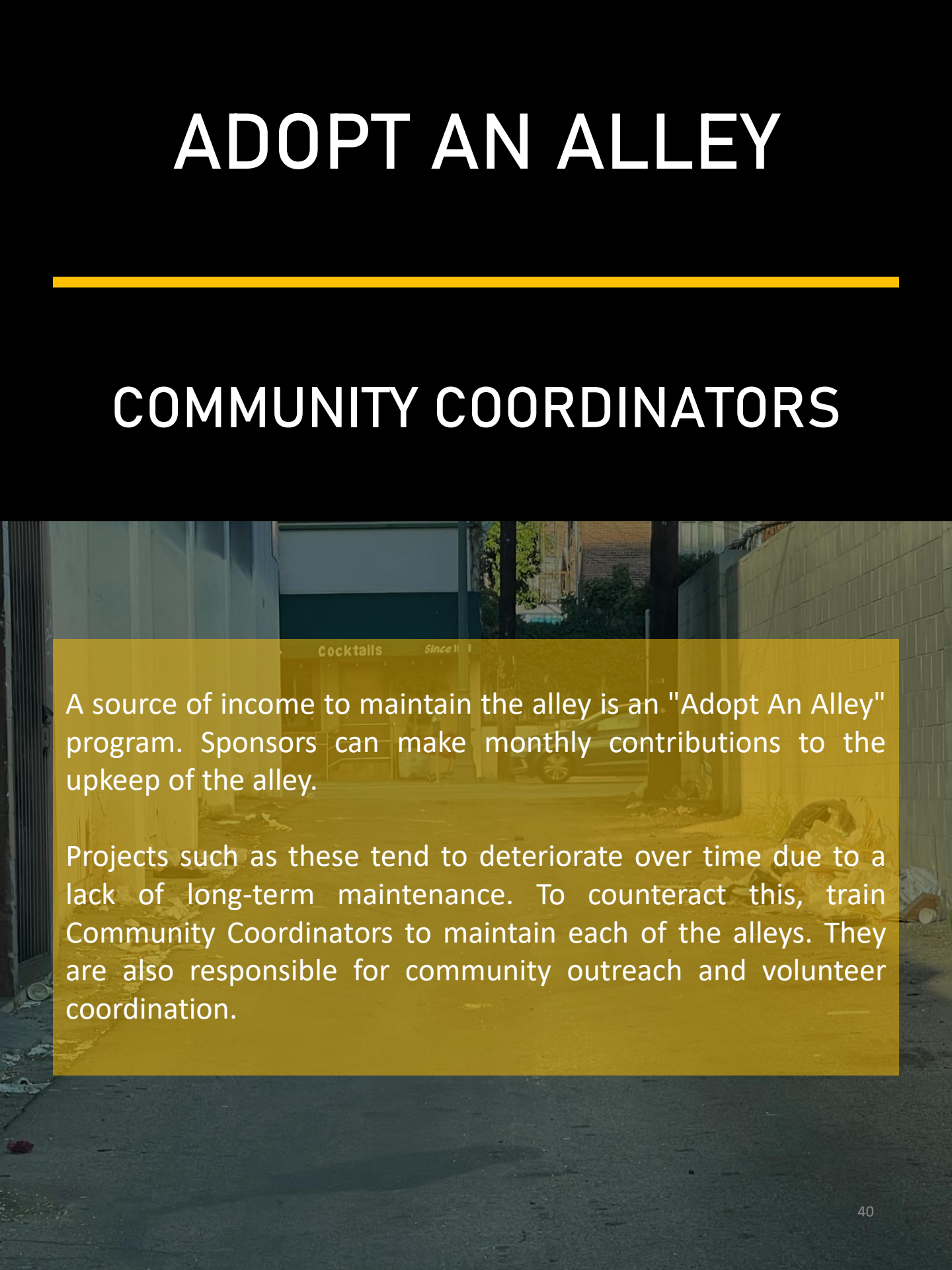
<https://www.dweller.com/>

Accessory Dwelling Units: Case Study

<https://www.huduser.gov/portal/publications/adu.pdf>

ADOPT AN ALLEY

COMMUNITY COORDINATORS

The background image shows a narrow alleyway between buildings. A yellow semi-transparent rectangle is overlaid on the image, containing text. In the background, a sign for 'Cocktails Since 11' is visible on a building facade.

A source of income to maintain the alley is an "Adopt An Alley" program. Sponsors can make monthly contributions to the upkeep of the alley.

Projects such as these tend to deteriorate over time due to a lack of long-term maintenance. To counteract this, train Community Coordinators to maintain each of the alleys. They are also responsible for community outreach and volunteer coordination.

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For more information on alley
revitalization, check out
greencityla.org

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