#CHALKTALK

Human-centered design for human-scaled transportation

MY STREET NAME IS...

BETWEEN

AND

What is this?

Hello! You're receiving this booklet as a part of a grassroots effort to help neighborhoods participate in designing their own sustainable transportation infrastructure. If that sounds a big "jargony" here's a break down of what that means:

SUSTAINABLE
An ecological balance of resources

TRANSPORTATION
The way people get around

INFRASTRUCTURE
The built environment

What will it do?

This booklet will use a process called "design thinking", which is a step-by-step method for understanding problems and coming up with ideas to solve those problems. But don't worry, you don't need to be a skilled designer or illustrator to take part in these steps. In this book you'll:

- **DISCOVER** *patterns of movements in your own neighborhood,*
- **UNDERSTAND** *the motivations and reasons behind these movements*,
- **IMAGINE** *possible solutions to observed problems,*
- **IMPROVE** *your neighborhood through testing your ideas, and*
- **SHARE** *your ideas with others to inspire broader change.*

How do I use this?

20 min

All of the tasks in this book are meant to be done quickly. Trust your gut and try not to deliberate too long on answers. A handy suggestion for the amount of time you should expect to spend will appear at the top of the page, but don't worry if you go a bit over or under it, go at your own pace.

Why Sustainable Transportation Infrastructure?

Transportation in U.S. cities makes up 25% of greenhouse gases that have a negative impact on climate change and air quality. Additionally almost 50% of all trips taken in personal vehicles are three miles or less. These trips, if exchanged for walking, biking, or transit, could have an immeasurable impact on the environment of our communities.

Likewise, nearly 51% of national car commuters have shown interest in trading their car commute for a bike commute, but concerns over personal safety on the road kept them from doing so. This concern for safety was directly related to the type of transportation infrastructure present.

Why Design Thinking?

People's travel habits are just as personal as most everything else in their life and therefore are hard to predict. They can be impacted by the types of transportation they have access to, the weather, how late they are running, etc. Design thinking is human-centered, meaning it strives to solve wicked problems by understanding people's behaviors, emotions, motivations, and circumstances.

In addition, the process of installing transportation infrastructure can be costly and time-consuming, as there is a lot of complexity that engineers, local governments, and planners want to make sure they get right for residents like you.

Why me?

As a resident of your neighborhood, you have the best perspective for what you need, what will work, and what won't. You have an acute sense for what kind of transportation takes place in your neighborhood, but you might be surprised by what you *don't* know. This booklet will help you combine both to come up with innovative new ways to improve safety, accessibility, convenience, and activity in your neighborhood.

Take a walk down a street in your neighborhood. This could be the street you live on or a street you're not familiar with. As you walk, take note of some of the things below. Be sure to cover the whole block, from one intersection to the next. This will be your study area for the remainder of the booklet.

Street Name _____

Date _____ Weather_____

Start Time _____ End Time_____

How much car traffic is there?

☐ Busy ☐ Steady ☐ Calm

What's the slope?

☐ Flat ☐ Slight hill ☐ Steep hill

Sidewalk condition *(circle one)*

Are there any sidewalks on this street? yes no

If yes, are there any gaps? yes no

Is it hard to walk around on this street? yes no

What is the condition of the sidewalk? good fair poor

Number of street lanes to cross

How many lanes of traffic do you have to cross? ☐

What do you observe? *(count with tick marks like this 𝍸)*

Sidewalk obstructions

Poles or signs _____

Parked cars _____

Trees or bushes _____

Garbage cans _____

Other _____

Amenities

Garbage cans _____

Benches_____

Water fountains _____

Bike racks _____

Car parking spaces _____

Transit

Uncovered bus stops _____

Covered bus stops_____

Bus schedule (printed) _____

Bus schedule (digital) _____

Crossing Aids

Median _____

Curb extensions _____

Overpass/Underpass _____

Crosswalks _____

Community culture

Murals or public art _____

Unique lighting or signs _____

Music or instruments _____

Unique architecture_____

Natural life

Trees _____

Bushes or shrubs _____

Open green space _____

Wildlife_____

These steps created by Dr. Kelly J. Clifton and Dr. Andrea D. Livi Smith. See Appendix for details.

Public life study

Now that you're more acquainted with the roads and sidewalks in your neighborhood, conduct a public life study to see of how these elements influence human movement. On the page to the right, sketch out some people's activities and movements using the directions below. You can observe for as little as 10 minutes or up to an hour, whatever you have time for.

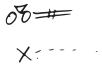
TAKE A SEAT Find a comfortable vantage point where you can see most of your street, from end to end. Mark your position on the map.

SET THE SCENE Take note of fixed structures such as homes, storefronts, cars parked on the road, trees, or driveways.

DRAW AN 'X' FOR EACH PERSON. Note how many and where they go with lines and numbers.

WHO IS IN YOUR NEIGHBORHOOD? What gender or age are people? Are there more women than man? Younger than older? People with disabilities?

WHAT DO PEOPLE DO? What kinds of activities are people engaged in? Is it for leisure or running errands?



WHERE DO PEOPLE GO? How fast are people moving? Is it related to weather or type of activity? How do built structures influence them? How long are they staying in one place?

These steps inspired by Jan Gehl. See Appendix for details.

Alright! Now that you've gathered some data about your street, you can begin to distill this information into themes and find potential relationships.

Memorable

Take a moment to reflect on what you've observed at this point. Go ahead, set this book down for 30 seconds and retrace your steps in your head...

What moments do you remember?

Surprises

Next, in a few words list some things you saw that you found **interesting** or **surprising** on each line. These could be events, people, interactions, objects, nature, anything.

1 ---

2 ---

3 ---

Routines

Do the same thing for anything you **didn't** find surprising. What were things that you expected to see, were familiar or every-day occurrences, or would be odd if they were missing?

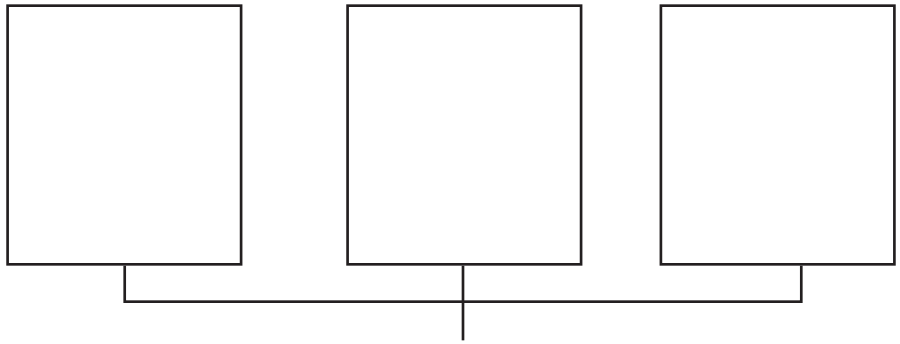
4 ---

5 ---

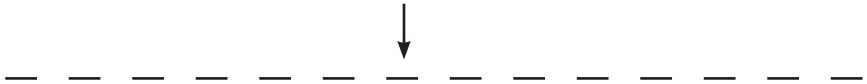
6 ---

Themes

Now look at what was **memorable,** your **surprises**, and **routines**. Circle words that seem related to how people move or behave. Are there any problems that arise? Do people drive too fast? Is parking congested? Write three issues you observed in the boxes below.



What do these problems have in common? How are they different? Try to distill a common theme between them and write it below.



Now that you've synthesized what you've observed and identified a problem, start to think of potential solutions. How do you do that? There are a number of ways!

Mash-up

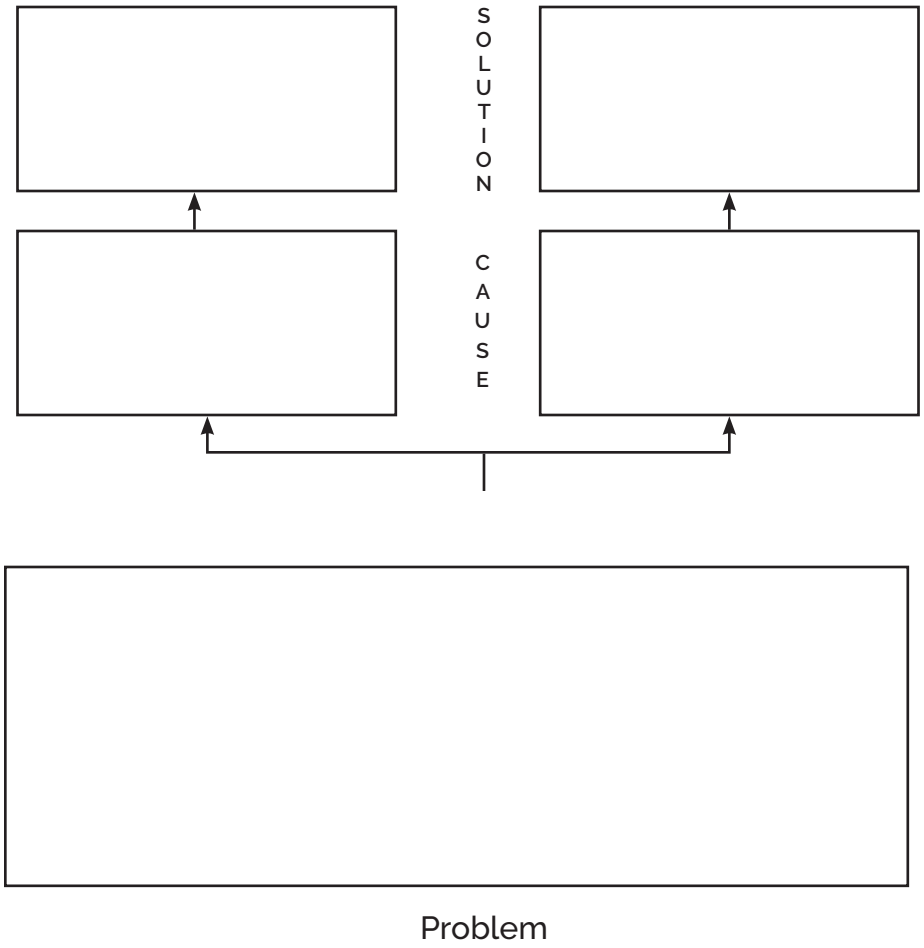
Look again at your list of surprises and routines below. Now roll a die for each column to randomly connect some things you've listed. What combinations are created? How can they become a product, service, or piece of infrastructure?

MASH-UP 1

MASH-UP 2

Brainstorm

Another way to generate ideas is to brainstorm. Ask yourself "Why causes this problem for people?" Break your problem below into two smaller **CAUSES** and write them in the lower boxes. Next, take a shot at solving these smaller causes with **SOLUTIONS** in the upper boxes. What happens when you combine these two solutions? Repeat these steps for as many topics as you can think of and ideas will start to come to you.



At this point after all your brainstorming and mashups you may have some ideas forming in your head that may solve the problem. Write your top three favorite ideas below. It's OK if they feel like "hunches" or incomplete, you will test one of them in the next stage to see what works and what doesn't.

Three ideas

1. This idea is a _____ for _____

in order to _____

2. This idea is a _____ for _____

in order to _____

3. This idea is a _____ for _____

in order to _____

Having trouble thinking of ideas? It's OK! This is the hardest part of design thinking as you are coming up with something new in the world. Take a peek back at your observational and interpretive work on the **DISCOVER**, **UNDERSTAND** *and* **IMAGINE** *sections of this booklet for more inspiration.*

Choose an idea

Evaluate each of your ideas against the statements below. If you think an idea matches that statement, place a checkmark in the box.

FEASIBILITY	**VALUE**	**AFFORDABILITY**
This idea is realistic	This idea will help people	This idea is cheap to make
☐	☐	☐
☐	☐	☐
☐	☐	☐

Which idea has the most checkmarks? Choose that idea and write it in one sentence.

_____

_____

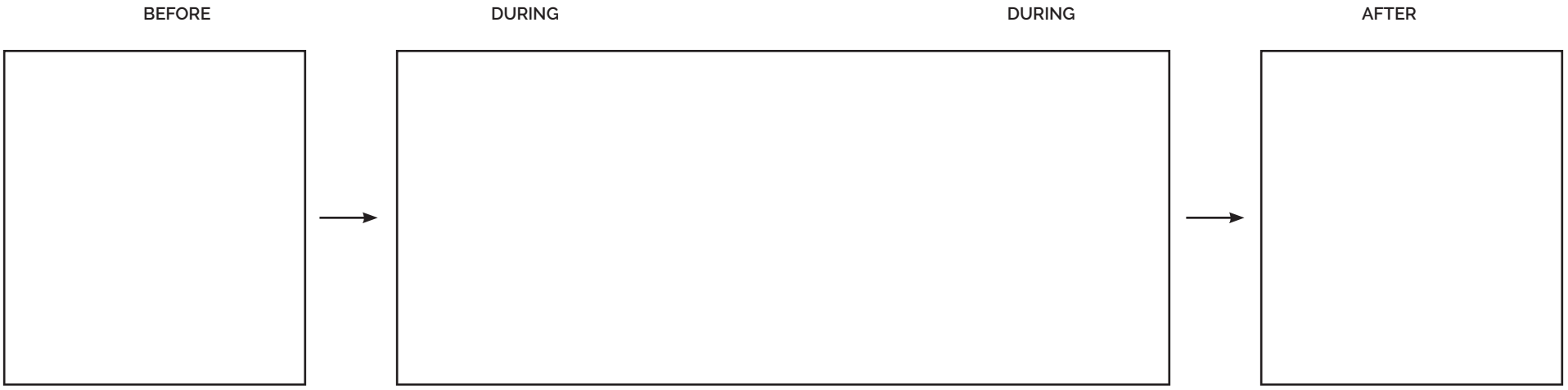
_____

_____

Storyboard

Now that you've chosen one idea, sketch out how someone might interact or use it. You don't need to be an artist to sketch out an idea, stick figures will work fine! The goal here is to think through how someone will experience your idea, such as before, during, and after their interaction.

What do you hope people will get out of this? What behaviors or actions might you idea change? This is the storyboard for your idea.



MATERIALS. What kinds of materials are needed in the storyboard above? First list some items that you already might have.

Things you have

MATERIALS. Now list items you don't have.

Things you need

Phew! You now have a idea in mind and how it might improve your neighborhood. It's time to put your idea into action and test it! If you don't feel ready to do so, that's OK! Testing an idea in an early stage is important in finding out what works and what doesn't.

Materials

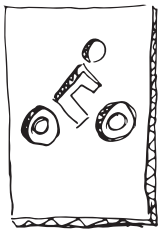
Because your idea should be tested quickly and cheaply, consider using the following materials you may already have.

DUCT TAPE

Chances are you have a roll of this laying around. It's a great utility for quickly adhering and constructing items.

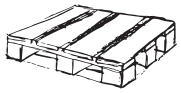
CABLE TIES

Cable ties can hold objects together and are easy to deconstruct.



STENCILS

Stencils can be used to help guide people's movement, or denote a specific use for a given space. You can download and print a selection of stencils at **http://ChalkTalkTo.me** and cut a stencil out of cardboard, construction paper, or any other flat, sturdy material you have around.



PALLETS

Pallets are great for platforms, signage, seating, or even spare wood. You can find them behind most big-box stores like grocery and hardware stores.

CHALK

Chalk is a temporary and environmentally friendly way to apply a shape to the road or sidewalk using a stencil or by hand. Spray chalk can also be bought at most art supply or hardware stores.

For a list of more materials and resources, see the Appendix on page 22.

MATERIALS NEEDED. Now list items you don't have.

Things you need

_____

_____

_____

_____

Prototype

A prototype is a method for testing out an early idea within the context of how people use it, in this case your neighborhood street! It's also a *temporary* opportunity to answer some questions that may have come up in the worksheets on prior pages. Before you start your prototype, answer the questions below to see if your assumptions are correct.

Who will be effected by your idea?

What will your idea seek to improve?

Test and observe (again) →

Once you've collected your material and/or build your idea, choose a time to test it that is the same or similar to your initial observations and repeat the process you used on page 7. This way you can document the effects of your idea before and after it is built. Be sure to mark the location of your idea.

Street Name _____

Date _____ Weather_____

Start Time _____ End Time _____

Wow! You've successfully observed a problem, created a possible solution, and tested it out in the real world! Chances are another community is experiencing the same issues you've observed in yours. At this point you should share your initial findings with other to test it more, or see what other ideas can be built from it.

Social Media

Take photos of your idea in action and share it to your personal social media account of choice. Use the hashtag below and tag **@chalk.talk.to.me** so others doing their own ChalkTalk can see your idea and build upon it.

USE THE HASHTAG ⟶ #ChalkTalk

TAG ON TWITTER & INSTAGRAM ⟶ @chalk.talk.to.me

Invite Feedback

There are many ways to gather feedback from the people using your idea. This can be in the form of a message board, allowing people to edit your idea, or creating your own hashtag. See more examples of feedback at **http://ChalkTalkTo.me.**

What are ways that people interact with or touch your idea?

_____

_____

How can this interaction be used for feedback?

_____

_____

Local city officials

In addition to your social media, share your idea along with any images you took with your city officials. You will provide them with a rich set of qualitative data that will help them improve yours and other neighborhoods. The best part is it started with **you.**

Depending on your city there could be several city offices that would be relevant to your idea.

PUBLIC WORKS

Public works departments generally design and oversee major projects in city infrastructure.

TRANSPORTATION

Transportation departments focus on facilities for types of traffic, commuter safety, and maintenance of roads.

PARKS AND RECREATION

As the name implies, Parks and Recreation departments focus on public land for leisure and activity.

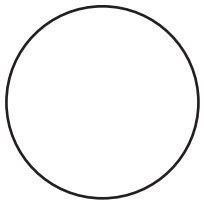
NEIGHBORHOOD PARTNERSHIP PROGRAMS

Some cities even have Neighborhood Partnership Programs, in which ideas like yours can be implemented on larger scales.

CITY COUNCIL

Whether your City Council is at-large or ward based, an elected council person has a vested interest in grassroots ideas.

Use this sticker to bind your booklet before mailing ⟶



Sidewalk Audit + Public Life Study

The first step you took in this booklet was to assess the comfort level of a street by walking down a sidewalk. This is called a "pedestrian audit" and it was created by Dr. Kelly J. Clifton and Dr. Andrea D. Livi Smith part of the Pedestrian Environmental Data Scan. The second step was an augmented "public life study" pioneered by architect Jan Gehl and Gehl Architects in Denmark, Copenhagen.

Design Thinking + Tactical Urbanism

The steps you used in this booklet to come up with your idea is called "design thinking", popularized by author and designer Tim Brown and the design agency IDEO. The methods used to put your idea into action is called "tactical urbanism", first coined by urban planner Mike Lydon.

Design Thinking for Sustainable Transportation

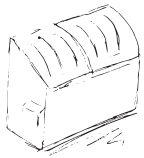
This booklet was created by Jacob DeGeal as a way to broaden awareness and understanding of the built environment, encourage grass-roots action towards creating safe complete streets, and encourage dialogue around progressive city growth between residents, planners, and elected officials. For more examples of how these the disciplines above work in concert to create more sustainable streets visit **http://ChalkTalkTo.me.**

Resources for materials

To find materials for free or cheap, check out the following purveyors of stuff.

REUSE STORES

Second-hand and salvage stores generally have larger items like furniture, appliances, or architectural elements.



CONSTRUCTION

Chances are there is construction going on in your neighborhood, and dumpsters provide a good source for materials.

HARDWARE STORES

Hardware stores are great for paint, tools nails, tape, etc.

GROCERY STORES

Grocery and other big-box stores usually have pallets near their dumpsters. Often they are happy to give them away.

Stencils

As mentioned on page 17, a selection of stencils like the ones below can be downloaded at **http://ChalkTalkTo.me.**

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