

Community-Led Prototyping with Open-Source Street Design Tools

Equity Committee for California Transportation Agencies

April 5, 2024

Kieran Farr

kieran@3dstreet.org



About Us



Kieran Farr

Tech Founder, Engineer, and Operator



Transportation Advocacy



SAFER 17TH STREET INITIATIVE

3DStreet

Collaborators



Diego Marcos

A-Frame creator, web 3D expert



Marc Schlossberg

Professor, City & Regional Planning, University of Oregon



3dstreet.org

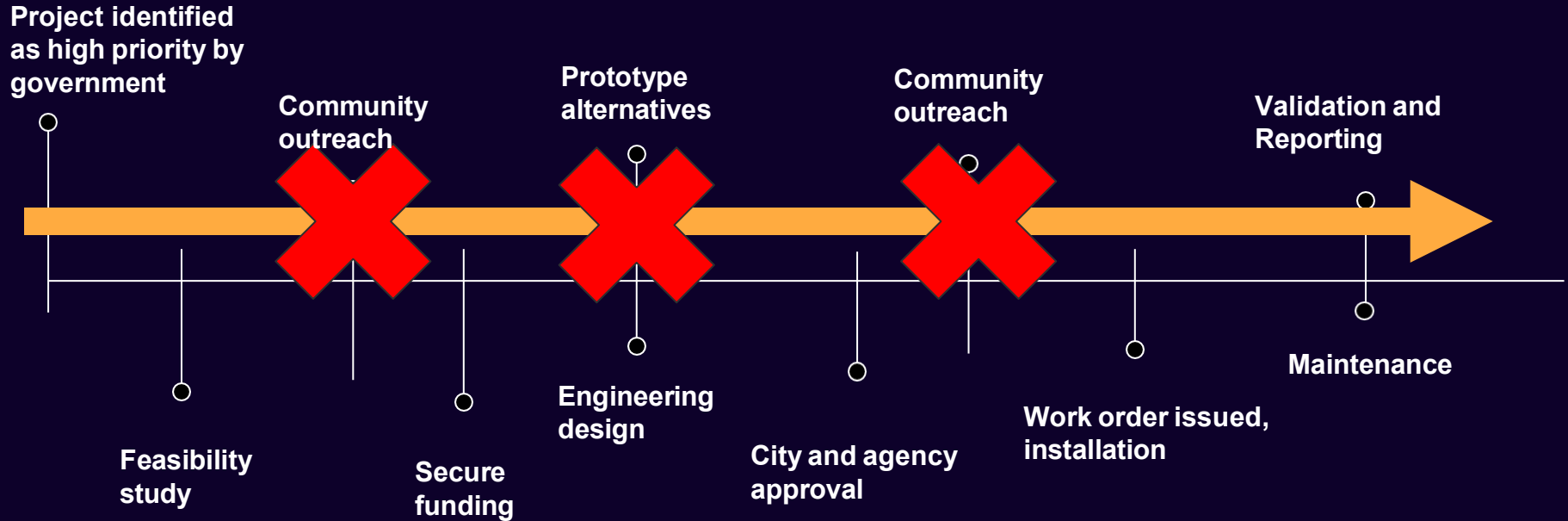
Agenda

- Why community-led prototyping?
- How do professional engineers & practitioners use the tools?
- How do communities and advocates use these tools?
- Advanced geospatial meets augmented reality
- How to get started?
- Please schedule 1:1 convos to explore your use cases & ideas!
 - <https://calendly.com/kieranfarr/3dstreet>

**It's very hard for people to imagine changes
to their streets.**

This leads to projects that get pushback, no political support, water down, delay or cancellation.

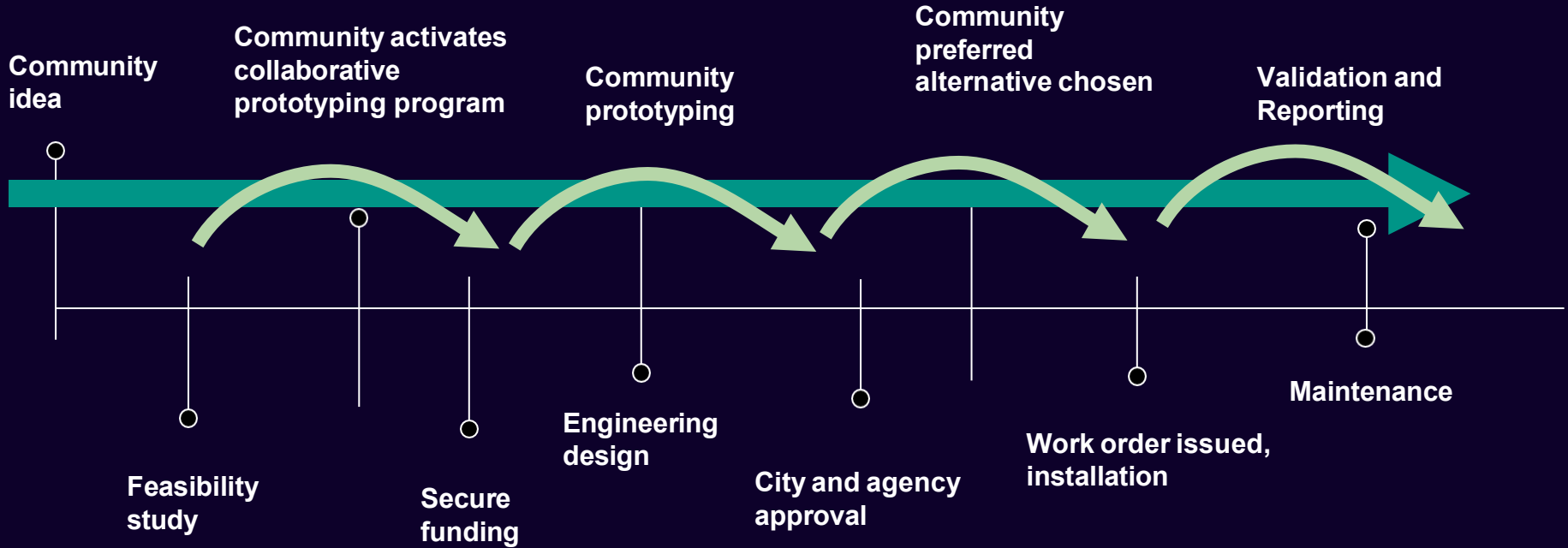
Typical street improvement project timeline



X – Community says “NO” and stops projects because of inability to provide rational & feasible feedback

Instead, get more projects done faster with community-led prototyping and continuous collaboration.

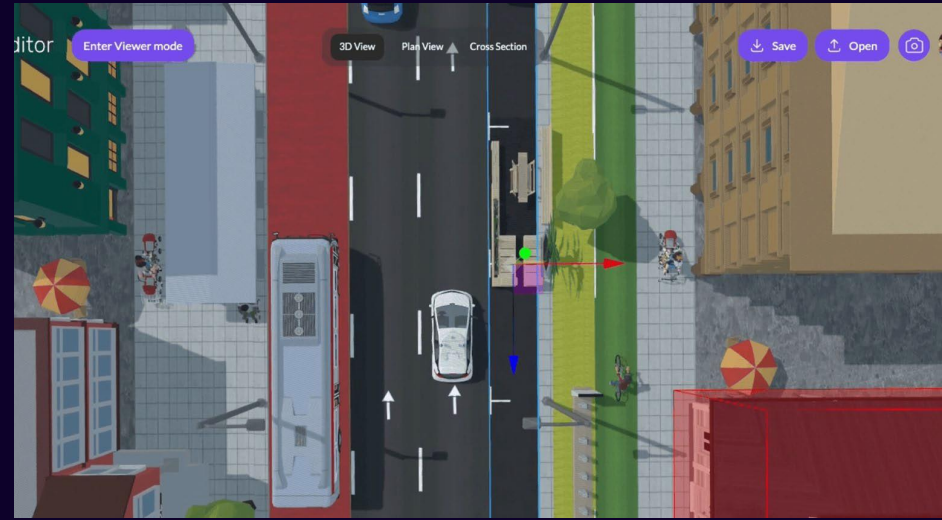
Improved project timeline



– Community says “YES” and pulls popular projects forward quickly to completion

**Need a common visual language for real
time spatial collaboration.**

With open-source street design tools, you can prototype instantly.



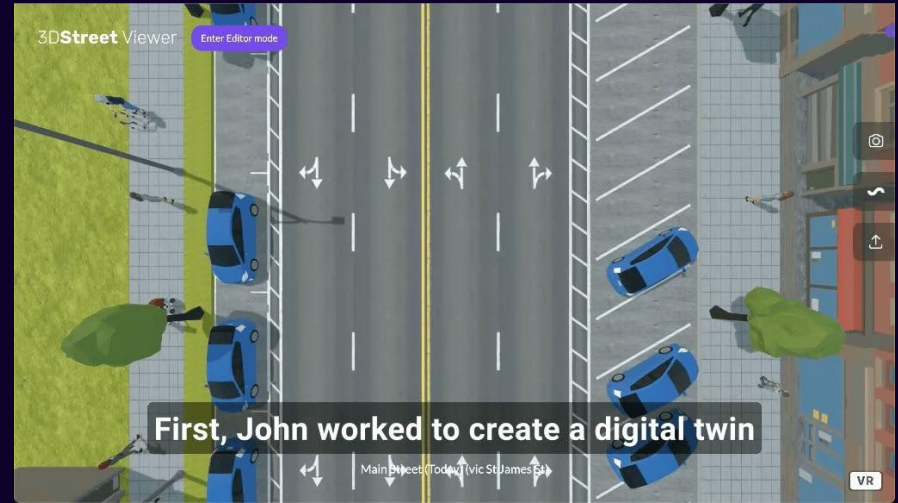
3DStreet

3dstreet.org

Case Study: Town of Manchester, CT



Case Study: Town of Manchester, CT



3DStreet

3dstreet.org

**Not just professionals.
Next gen street tools are for everyone.**

Safe Street Rapid Prototyping Process

Streetmix.net → 3DStreet.app

The screenshot shows the Streetmix website interface. At the top, there is a navigation bar with the Streetmix logo, 'Help', 'Contact', and 'Store' links. The main heading is 'Streetmix Street'. Below the heading, there are controls for '24 m width (2 m over)', '18,500 people/hr', and an 'Add location' button. The central part of the image is a 3D-style illustration of a street layout with various lanes and features. At the bottom, there is a detailed table of the street layout components.

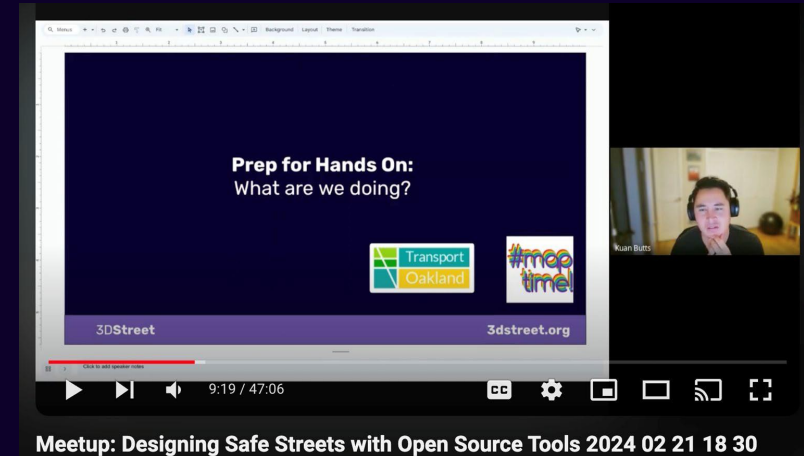
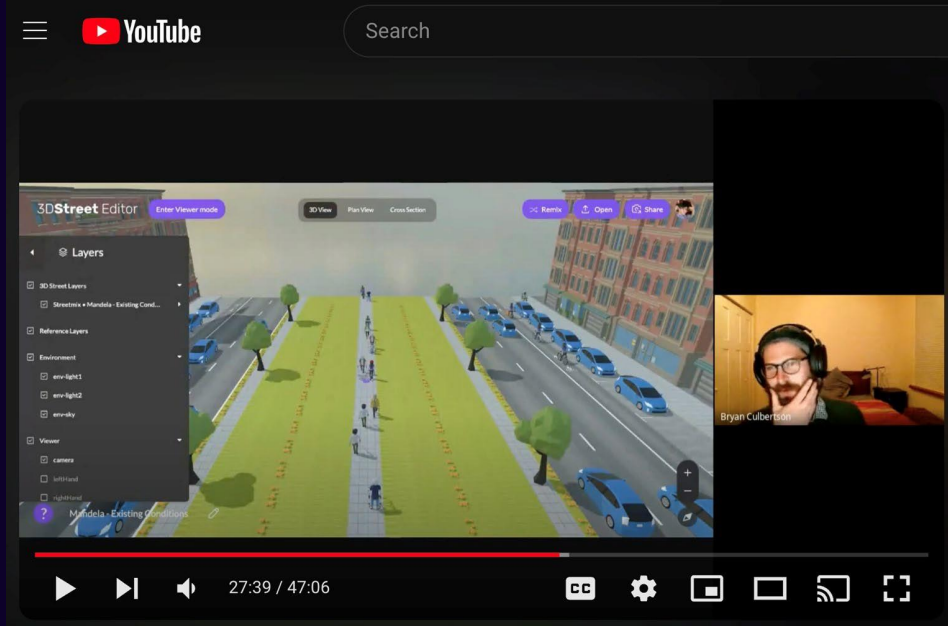
1.8 m	0.6	2.7 m	0.6	2 m	3.6 m	2.7 m	0.9 m	3 m	2.1 m	1.2 m	1.8 m	0.6	0.6	1.8 m
Sidewalk	Si...	Transit shelter	L...	Taxi loading...	Shared bus/bike lane	Drive lane	Pla...	Turn lane	Parking lane	Plante...	Bike lane	L...	Si...	Sidewalk
0 people/hr					5,000 people/hr	1,500 people/hr					12,000 pe...			0 people/hr

On the right side, a sharing menu is open, listing options like 'Copy and paste this link to share:', 'Share using Mastodon', 'Share using Twitter', 'Share using Facebook', 'Open in 3DStreet', 'Print...', and 'Save as image...'. The 'Open in 3DStreet' option is highlighted with a red box.

3DStreet

3dstreet.org

Transport Oakland hands-on design webinar



3DStreet

3dstreet.org

New research and pilots: GIS meets Augmented Reality

Use the real world
as your canvas
with any phone.

Bollard Buddy AR Hackathon Demo Exit AR
Bollard Buddy AR



App for placing bollard and traffic control devices
in the field using AR. Hackathon demo powered
by [3DStreet](#), [A-Frame](#), and [Variant Launch](#)



Selected item: temporary-traffic-cone

Cone

Safehit Post

Barr

Bollard Buddy AR Hackathon Demo Exit AR



Selected item: temporary-traffic-cone

This is Bollard Buddy.

Cone

Safehit Post

Barr

Integrate AR field survey
with existing geospatial
sources.



Community outreach through AR



3DStreet

3dstreet.org

“Open Core” Business Model

Always free for basic software features

Supported by paid features and services:

- Advanced geospatial features like 3D maps & AR
- Custom feature & app development services
- Outreach technology consulting
- **Paid project pilots to research tool effectiveness**
- Group training courses for all skill levels
- Innovation consulting on GIS, AI, AR, VR

<https://calendly.com/kieranfarr/3dstreet>

Community-Led Prototyping with Open-Source Street Design Tools

Kieran Farr

kieran@3dstreet.org

<https://calendly.com/kieranfarr/3dstreet>

