

# **Tempe Adaptive Streets Implementation Design Guide**

**Tempe Council IRS  
August 25, 2022**



*Making waves in the desert*

# Council Priorities



## Quality of Life

### 3.26: 20 Minute City

Achieve a multimodal transportation system (20-minute city) where residents can walk , bicycle, or use public transit to meet all basic daily, non-work needs.

### 3.29: Transportation System Satisfaction

Achieve ratings of “Very Satisfied” or “Satisfied” with the “Overall Satisfaction with Transit System in Tempe” greater than or equal to 80% as measured by the City of Tempe Transit Survey.

# Goals for Today's Discussion

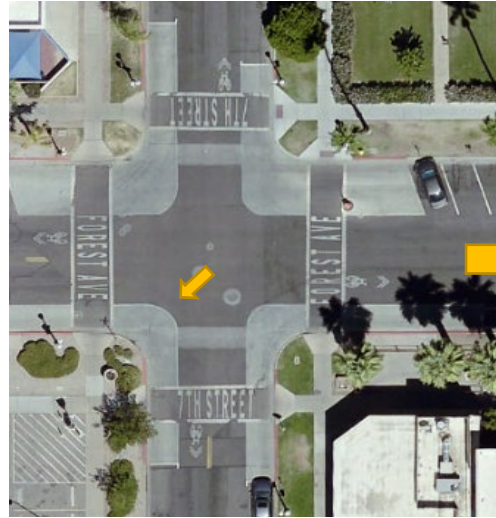


- Provide an overview of the **history and purpose** of the Adaptive Streets Project
- **Explain** what adaptive streets are and **provide examples**
- **Outline** the Adaptive Streets Implementation Design Guide
- Identify **next steps** for the project

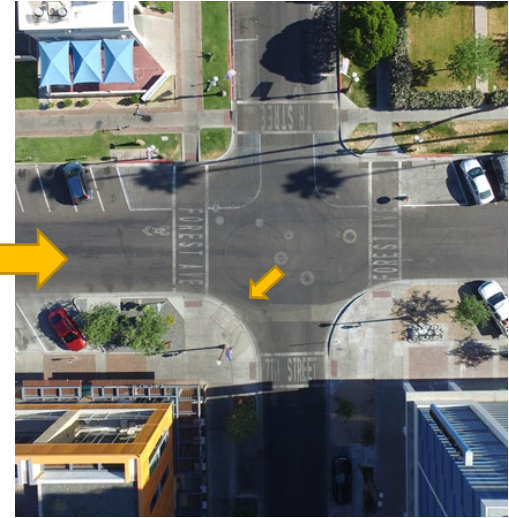
# Background



## Tempe's Previous Successes



2016



2022

# Adaptive Streets Definition for Tempe



An **adaptive street strategy** is a change to the public right-of-way (sidewalk, curb space, roadway, median) that:

- is implemented temporarily and relatively quickly
- includes a new feature that changes how some/all of the right-of-way is used
- is location-specific in response to a community need



# What an Adaptive Street is NOT...

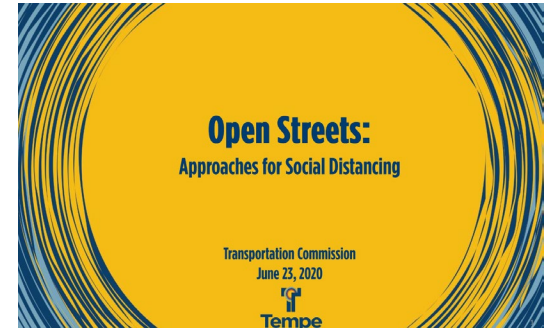


- a project that permanently changes any aspect of the street
- a project that reduces safety or accessibility/ADA compliance of a public space
- a replacement for other established City programs/processes related to roadway construction or traffic mitigation/management

# Background: The Open Streets Movement

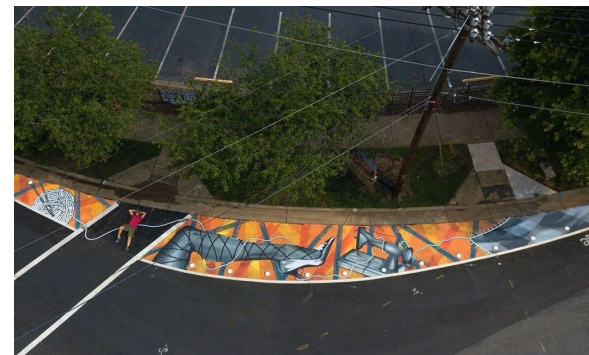


- Shift in what the community wanted or needed from public space
- Local governments responded ...in a short period of time



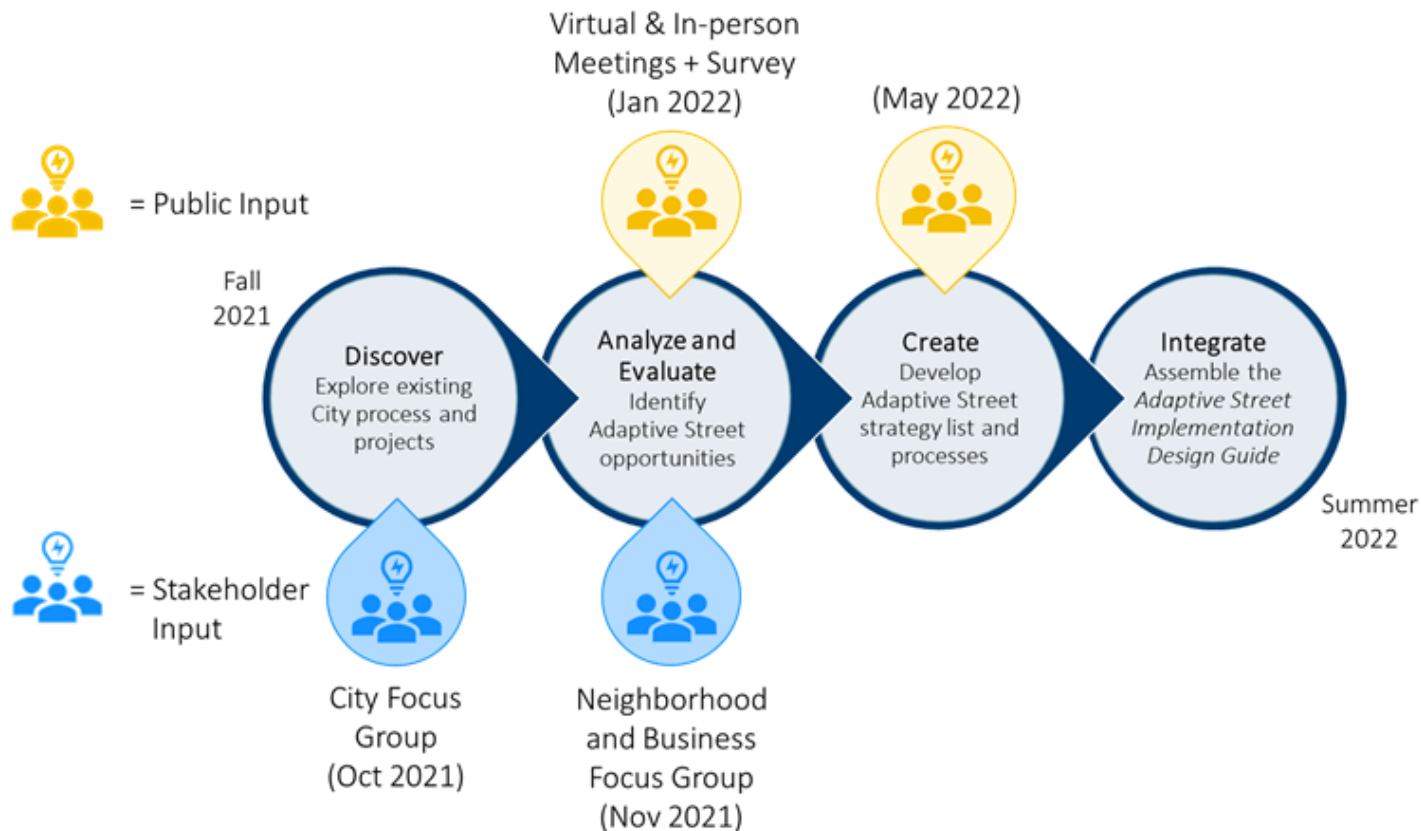
City of Tempe: June 2020 Transportation Commission Meeting – Open Streets as social distancing in response to COVID-19

# Results of the Open Streets Movement





# Project Process





<b>Timeframe</b>	<b>Activity</b>
May 2022	Presentations to City Commissions
May/June 2022	Draft Adaptive Streets Implementation Design Guide and Public-Facing User Guide
June 2022	Complete Design Guide and Application Guidebook
July 2022	Initiate First Pilot Project (DTA + COT)
August 2022	Council IRS Presentation

# Stakeholder and Public Feedback



- Adaptive Streets can support City's goals and initiatives
- Desire for placemaking and community in streets
- Need for a clear process and a faster process



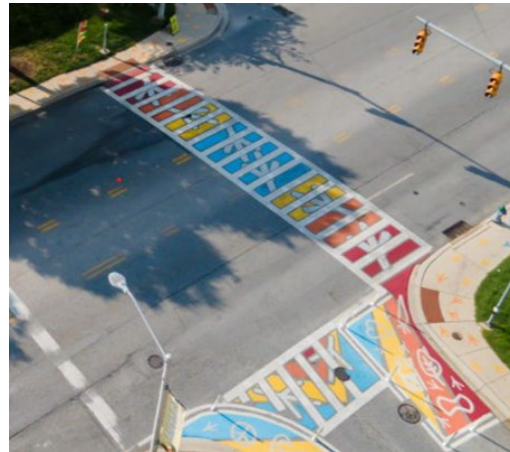
# Proposed Tempe Adaptive Street Strategies



Need: enhanced pedestrian environment at an intersection



Temporary Curb-extension  
or Bulb-out



Painted Crosswalk



Decorative Sidewalk

# Proposed Tempe Adaptive Street Strategies



● Need: more space to bike



Parklet for bike parking



Temporary Shared/Open Street: local vehicles allowed; street is open to pedestrians and bicyclists



Alternative Curbside Use for temporary protected bike lane

# Proposed Tempe Adaptive Street Strategies



## Need: enhanced environment for transit riders



Temporary Shade along pedestrian waiting areas



Decorative Sidewalk at transit stops



Alternative Curbside Use for temporary dedicated transit lanes or separated transit stop

# Proposed Tempe Adaptive Street Strategies



Need: more room for outdoor business or community use



Alternative Curbside Use for dining or gathering



Parklet for greenscape or shade



Alternative Curbside Use for retail or community space

# Proposed Tempe Adaptive Street Strategies



## Need: placemaking



Decorative Sidewalk with temporary wayfinding



Painted Roadway



Painted Intersection





# Proposed Implementation Process

## Internal City Processes

- Fielding adaptive street applications
- Design review process/City Traffic Engineer Approval

## Public Processes

- Using the Design Guide
- Following the Application process
- Identifying project funding opportunities
  - Self funding (Applicant can partner with businesses, non-profits, etc.)
  - Potential city grants (Transit Program/Transit Fund, Neighborhood Services)



# Proposed Adaptive Street Strategies

- Decorative Sidewalks (paint, wayfinding ‘stickers’)
- Painted Crosswalk
- Decorative Curb Extension/Bulb-Out
- Painted Pavements (mid-street murals, cul-de-sacs, intersections)
- Temporary Shade (sidewalks, ped waiting areas)
- Parklets (bike parking, shade, seating, dining)
- Alternative Curbside Use (walking, biking, transit, dining/retail)
- Open/Shared Street

## Painted Pavements



### How Painted Pavements Work

Painted pavements includes mural projects on paved surfaces at street-level (i.e., not sidewalks) such as intersections, crosswalks, cul-de-sacs and other roadway surfaces. A painted pavement project may be as large as an intersection or even an entire block, depending on the goal of the project and the surrounding land use, and they are a great way to add beauty and create community identity through placemaking.

### Where Painted Pavements Work Best

- Streets with speed limits of less than 40mph
- Streets with no more than four travel lanes
- For painted intersections, crosswalks or curb-extensions, prioritize locations where there is an existing stop-controlled intersection or where a vehicle is already required to stop due to a stop sign, traffic signal, or pedestrian crossing

### Starting The Process

- Review the City’s guidelines for painted pavements in the Adaptive Street Design Guide to make sure the proposed location meets criteria
- Reach out to neighbors to gather feedback and gain support for the adaptive street project
- Reach out to potential artists on the City of Tempe’s approved list of artists to work through design concepts and costs.
- If approved, apply for a barricade permit allowing for temporary closure during the painting of the pavement.

### Design Considerations

- Pavement to be painted must be in good condition and free of potholes, large cracks, or breaks.
- Design can not infringe upon or mimic official existing street markings or traffic control devices (i.e. white or yellow striping or markings).
- A combination of the design and materials should ensure a non-slip surface that allows for adequate roadway grip.
- Design can not use copyrighted materials without permission and can not include insensitive words, logos, or imagery.
- Freshly paved areas will absorb more paint. Make sure to account for extra layers of paint if painting over a recently paved surface.



Enhanced Pedestrian Environment

# Adaptive Street Design Guide + Public User Application Guidebook



Enhanced Pedestrian Environment

## Decorative Curb Extensions/ Bulb Outs

*Example needs: shorter crossing distances at an intersection or other crossing; increased awareness of crossings; more space for pedestrians or bicyclists to wait to cross the road.*

Curb extensions help improve the pedestrian environment at an intersection or designated crossing by increasing the overall visibility of pedestrians waiting to cross the street, shortening crossing distances, and physically narrowing the roadway. Decorative curb extensions can also provide opportunities for place-making and adding space for temporary green-scapes/vegetation elements.

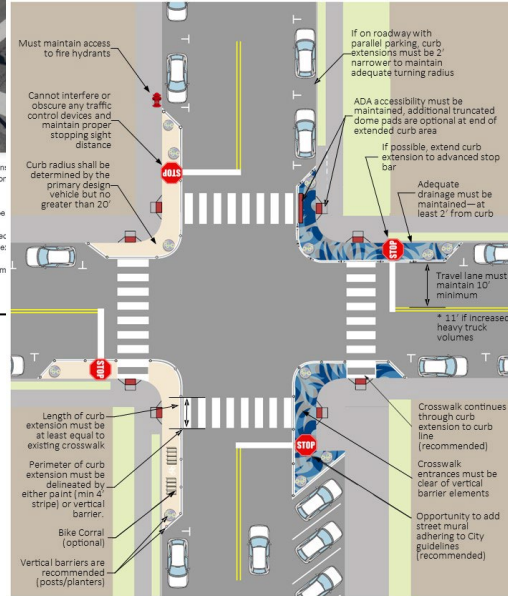
### Locations Requirements

- Local/Neighborhood streets or some collector streets
- Streets must have a speed limit of 40mph or less
- Best suited for intersections with existing crosswalks with high levels of pedestrian crossings (ex: downtown; near schools; near parks)
- Best for streets with on-street parking

### Design Considerations

#### Required

- Must maintain a 10-foot-wide travel lane in either direction or 11-foot lanes if there is higher truck volume along the street
- The length of the curb extension must be at least equal to the width of the existing crosswalk.
- The perimeter of the curb extension must be delineated by either a paint (a minimum 4-inch wide stripe) or a vertical barrier.
- Curb radius should be determined by the primary design vehicle but should be no more than 20-feet.
- If installed along a roadway with parallel parking, curb extensions must be two-feet narrower than parking lanes to maintain an adequate turning radius at corners.
- Must not interfere or obscure any traffic control devices or signs (stop signs, pedestrian crossing signs)
- Stop signs must be placed in advance of the crossing
- If vertical barriers are included, must maintain proper sight distance at intersections, per the City of Tempe's [Intersection Sight Distance Requirements](#)
- If installed near a fire hydrant, the design must maintain access to the hydrant.



## Curb Extensions and Bulb Outs

### How Curb Extensions Work

Curb extensions help make street more comfortable and safer for walking by slowing traffic speeds and creating safer crossings for pedestrians. Curb extensions narrow the roadway at crossing points alerting drivers to the presence of pedestrians and reducing the distance to cross the street. This is particularly beneficial for areas where kids may be crossing or parents pushing strollers.

Before adding curb extensions to a street, it is important to consider a few conditions. One, what type of street it is, what type of amenities are nearby and who else is in support of adding a curb extension. Below you will find some considerations for adding curb extensions to your street.

### Process

- Reach out to neighbors and ensure all effect neighbors support the addition of curb extensions
- Decide if painted curb extension or if using planters fits the character of the street best
  - If painting review the City's street painting guidelines and seek approval of the design from city staff
- Review the City's the (Adaptive street toolkit)
- Apply for a barricade permit allowing for temporary closure during the install of the curb extension

### Design Considerations

- Your Street must have a speed limit less than 40mph
- Best suited for streets that already have cross walks
- Can be used on residential or commercial streets but recommended for streets with high amounts of walking, such as near schools
- Curb extensions must not impede emergency vehicles or block access to fire hydrants
- Any curb extensions must still allow a truck to turn
- Curb extensions must maintain ADA access

Enhanced Pedestrian Environment



# Questions?



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