

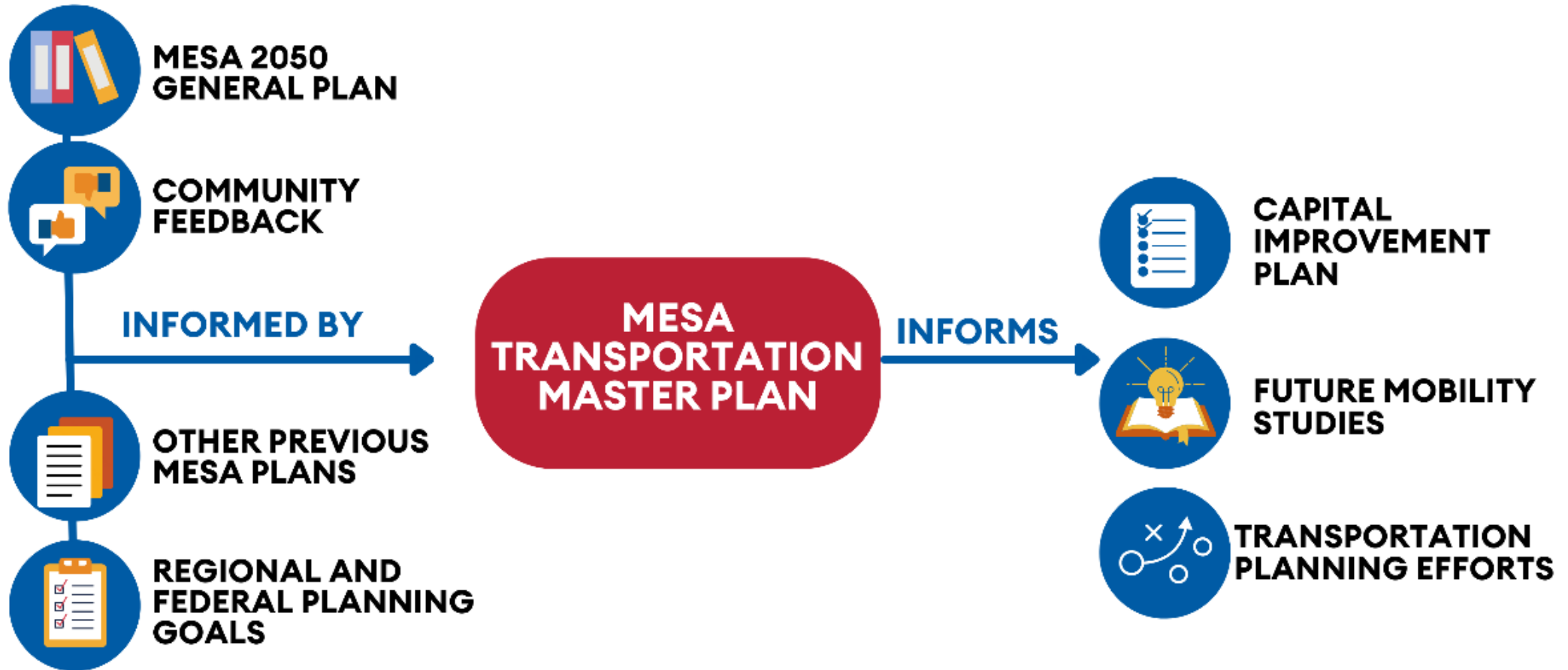


CITY OF MESA 2050 TRANSPORTATION MASTER PLAN

December 7, 2023

RJ Zeder, Transportation Department Director
Erik Guderian, Assistant Transportation Director
Sabine King, Supervising Engineer
Mark Venti, Sr. Transportation Engineer

TMP/Transit – General Plan Coordination



Phase II Public Outreach Update!



350+ surveys completed to date



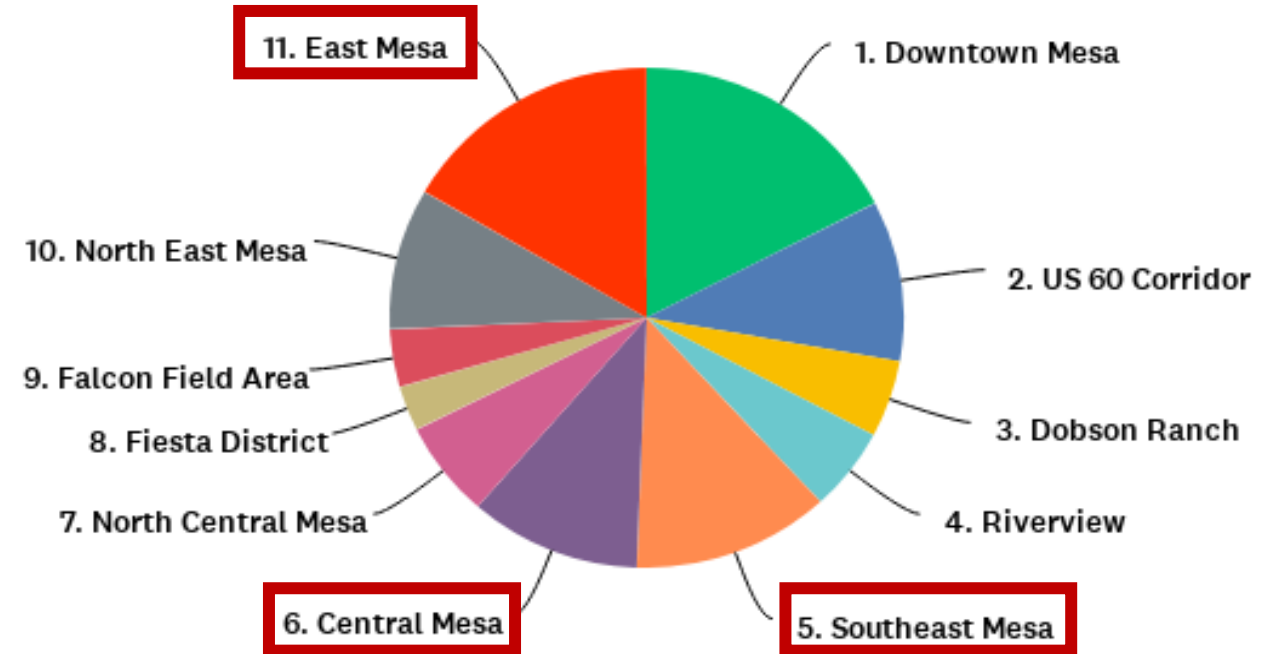
1,138 unique visitors to website



Stakeholder Focus Group meetings completed - Nov 15 and 16

- Internal City Department Staff
- Community organizations, business groups, etc
- Neighboring cities and partnering agencies

Feedback From Virtual Project Guide Website



No feedback received during in-person meetings

Combined with in-person events, we received balanced feedback from across the City

Transportation Advisory Board

What approach do you prefer to improve vehicle congestion and mobility?

- **Tied –**
 - Increase capacity by adding lanes and/or other infrastructure
 - Manage demand with technology or by enhancing other transportation modes

If a travel lane on a road was no longer needed, how would you like to see that space used?

- **89%** - Converting the lane to enhance/add pedestrian and bicycle facilities

1. What transportation investments would you most like to see?

Ranking Poll 8 votes 8 participants

More sidewalks and bike lanes



Improvements to enhance safety for travel by vehicles



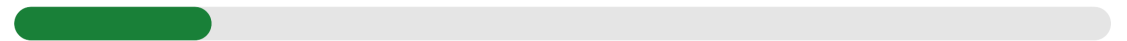
Improvements to reduce vehicle congestion



Expand public transit service



Technology improvements (i.e., electric charging stations)



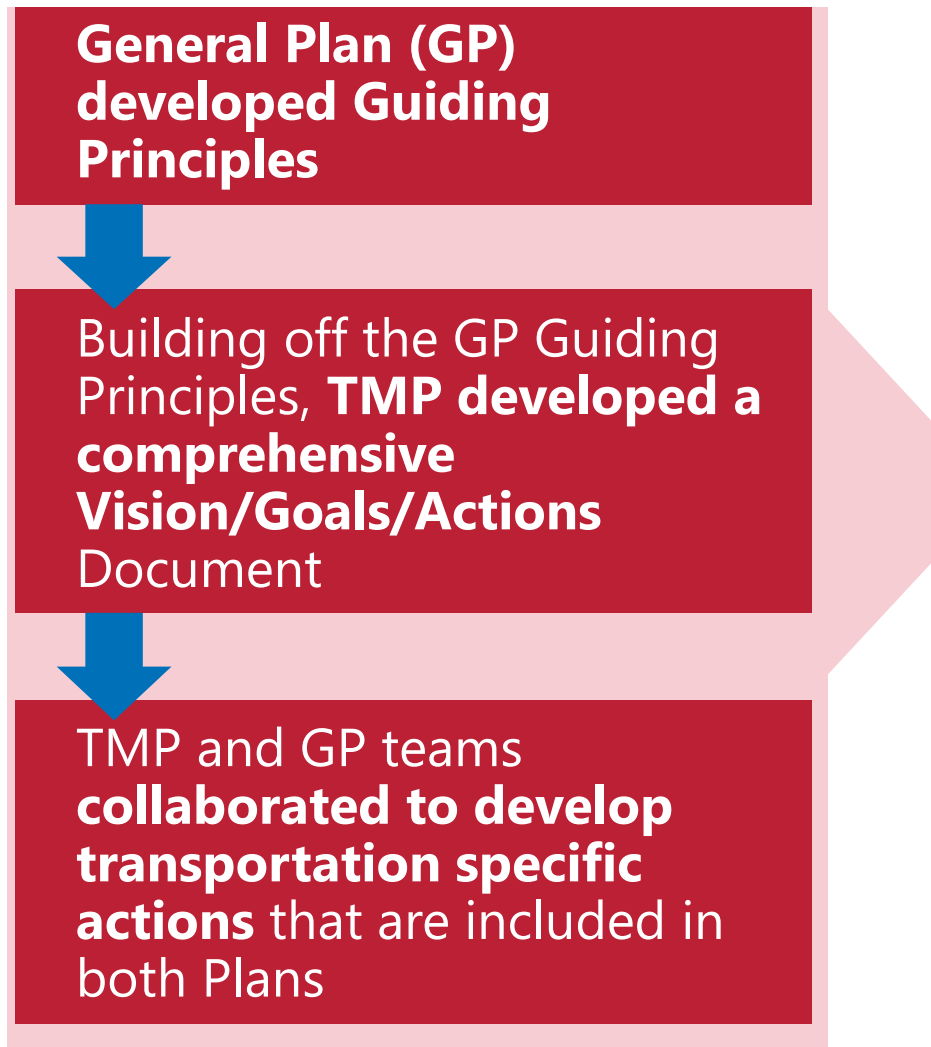
0

2.5

5.0

Weighted Score

General Plan / TMP – Common Vision



Example Transportation Specific Actions in General Plan

- Prepare and implement additional studies:
 - Active Transportation Plan
 - Citywide Safety Action Plan
 - Assist with the Downtown Micromobility Plan
- Develop Design Guidance to Integrate TMP Street Typologies
- Integrate Technology into Street Design
- Increase Options on the City's Bicycle and Pedestrian Network
- Continue Implementation of the ADA Transition Plan
- Increase EV Facilities

TRANSPORTATION GOALS



MANAGE AND MAINTAIN

Promote stewardship of a **sustainable and efficient transportation system** through strategic system management and preservation.



CONNECTIONS AND CHOICES

Develop an integrated and **complete multimodal transportation network** that provides improved and accessible mobility options for all modes.



THRIVE AND PROSPER

Strengthen the city, its residents, and its businesses, by **advancing equity and economic competitiveness** through improved transportation access to jobs, education, services, and goods.



SAFETY FIRST

Create a transportation network that consists of **safe and comfortable** mobility options for all current and future users.

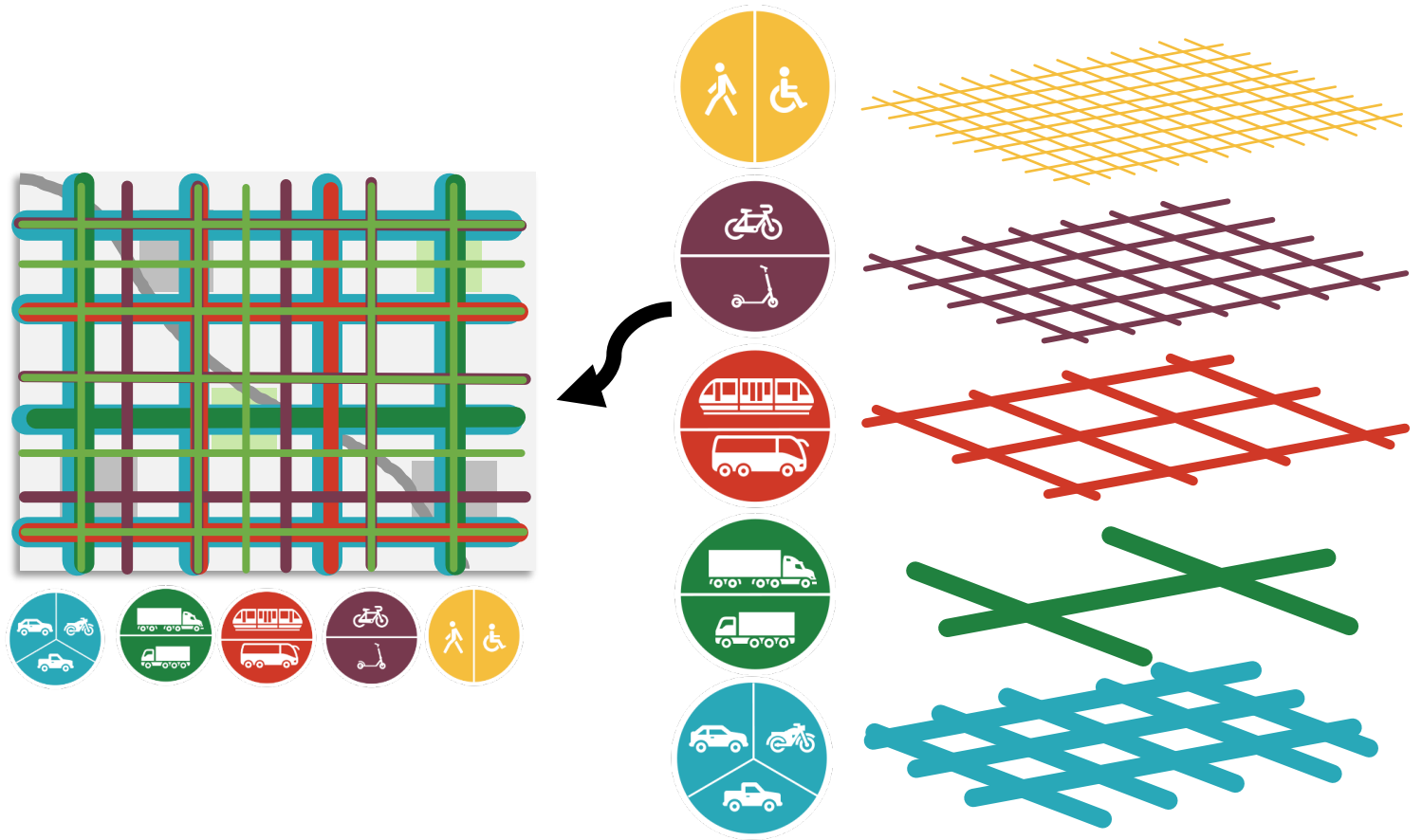


ANTICIPATE AND ADAPT

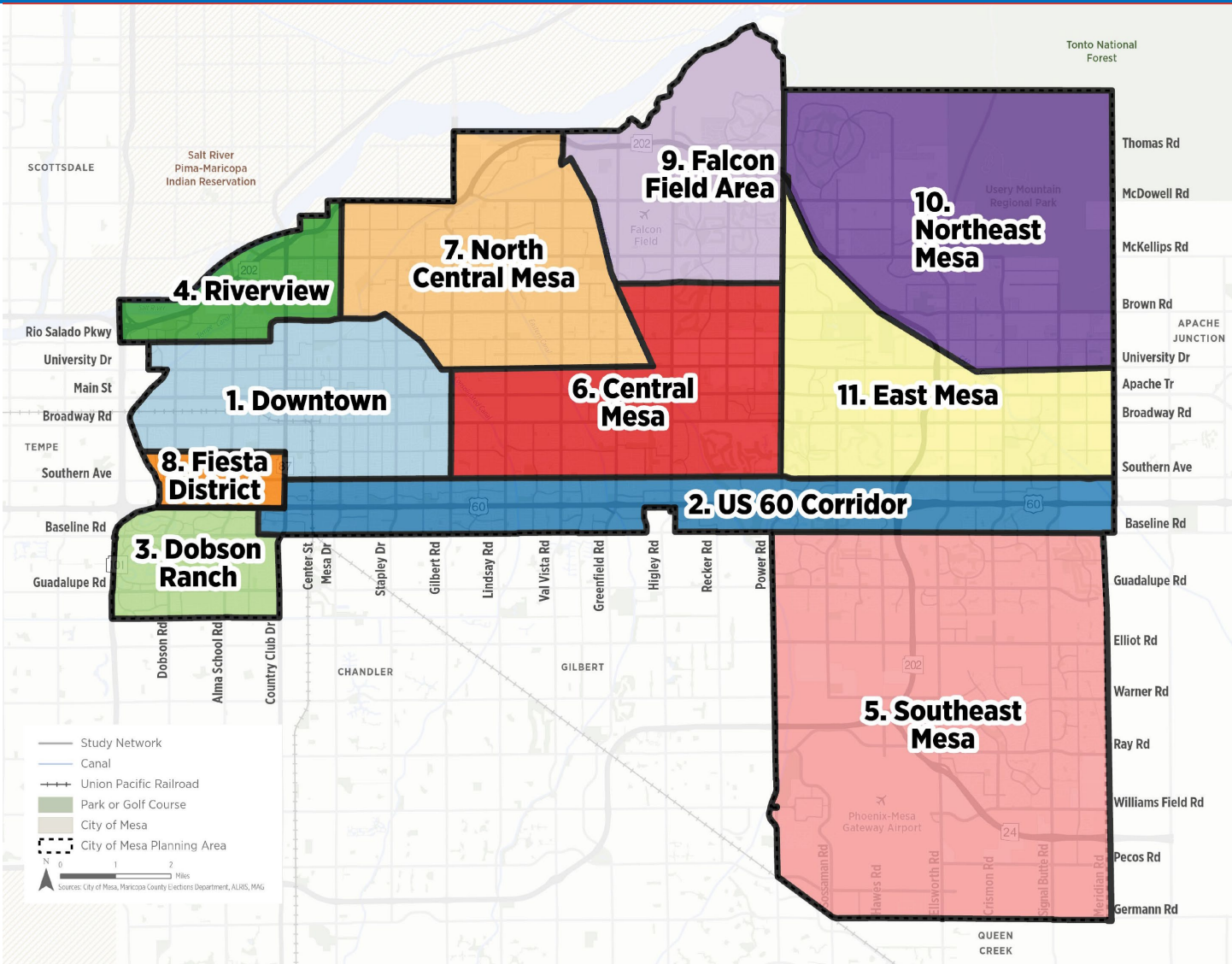
Adapt to emerging technologies, land use changes, and transportation mobility demands by being innovative and flexible to ensure a **resilient and responsive transportation system**.

COMPLETE NETWORKS

Understand the Modal Needs of Each Street to Create Complete and Connected Networks



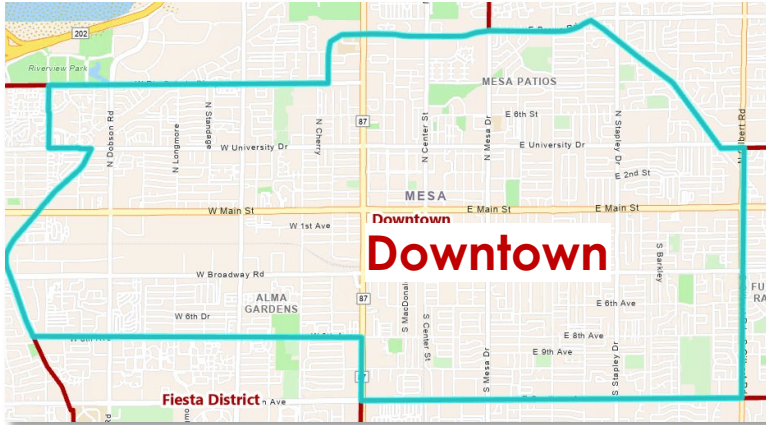
TRAVEL SHEDS



Travel Sheds: Each Mesa area is unique and has unique transportation needs

- **Travel Sheds** are geographic areas that have similar socioeconomics and trip making characteristics; and tend to have similar transportation needs
- **Factors used to define travel sheds**
 - Socioeconomics (income level, household size, age, poverty status, zero-car households, minority concentrations, etc)
 - Future land use (General Plan)
 - Travel characteristics (predominant modes used, average travel distances, travel purposes, etc)

1 Downtown Mesa



Characteristics:

- High concentrations of disadvantaged populations
- High growth & high land use densities
- Highest volumes of transit/ped/bike travel in Mesa

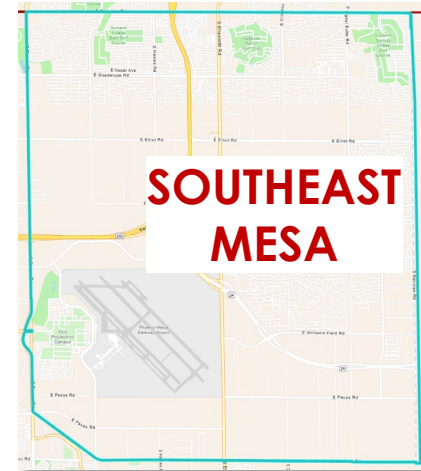
Public Feedback:

- Priority Investment- Upgrade/improve existing infrastructure
- Need safer and more comfortable bike facilities
- Encourage alternative transportation uses
- Manage demand with technology or other modes

Key Transportation Needs / Focus Areas:

- Enhancing and closing gaps in the multimodal network
- Accommodating regional travel on Main Street, Broadway Road, and Country Club Drive
- Enhanced transit services and First/last mile connections
- Supporting new development while maintaining existing character

5 Southeast Mesa



Characteristics:

- High growth, newly built area, with low concentrations of disadvantaged populations
- Travel Mode: Vehicle (89%); Walking (9%)

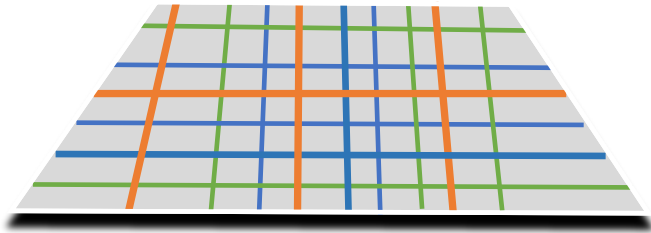
Public Feedback:

- Priority Investment- Expand transportation system
- Embrace new technologies; Improve roadway conditions
- Manage demand with technology and other modes
- Add transit options

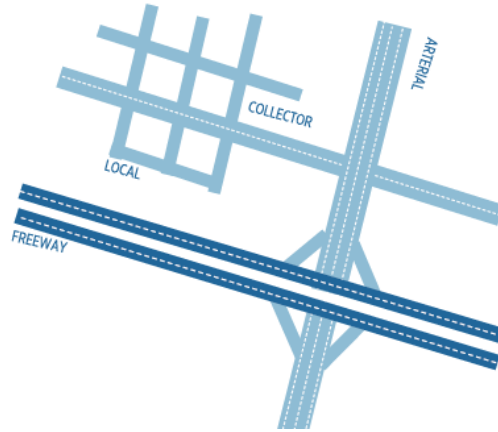
Key Transportation Needs / Focus Areas:

- Build out arterial and freeway transportation network
- Improved access to key regional destinations
- Enhance multimodal network through master planned developments
- Identify and build out key freight corridors

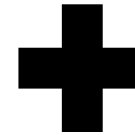
STREET TYPOLOGIES PROCESS



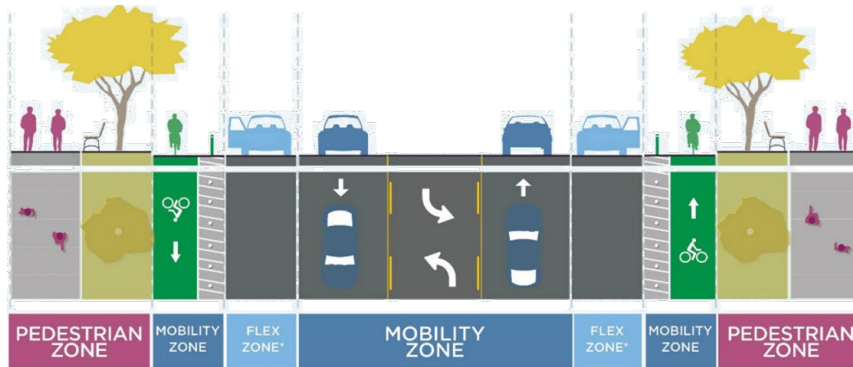
Complete Networks



Functional Classification



Street Context



Street Typologies

Defines Street Elements (Travel lanes, transit infrastructure, sidewalks, bike lanes, etc.)

STREET CONTEXT



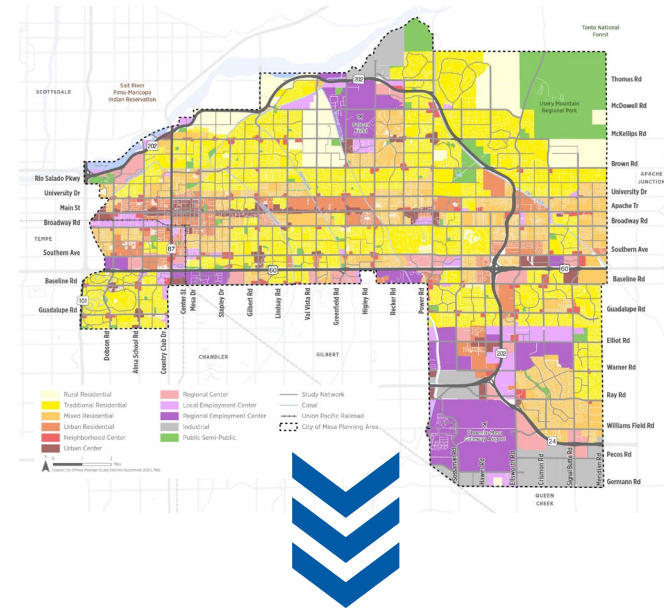
EXAMPLE ONLY

Street Context Types

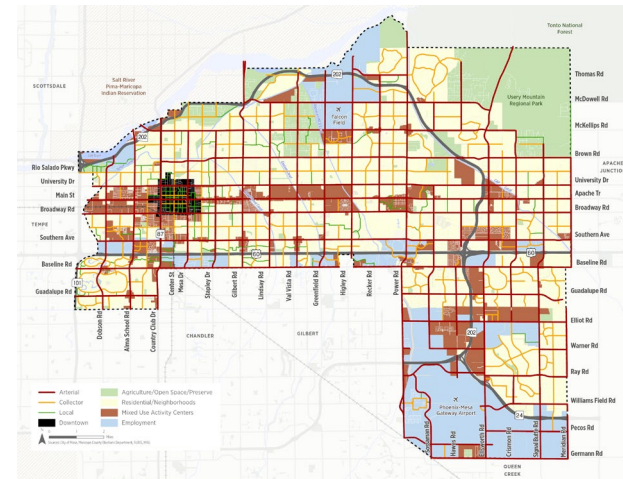
Residential/Neighborhoods	Mixed Use Activity Centers
Employment	Agriculture/Open Space/Preserve

Downtown

Builds on General Plan Land Use



General Plan Land Uses



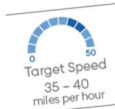
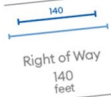
Street Context Types

STREET TYPOLOGIES

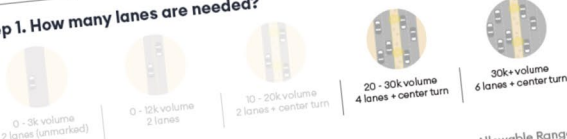
Arterial Employment

Our Vision: Super arterials within Regional Activity Centers are important corridors for moving people and providing access to employment, services, and commercial centers. Many trips cover longer distances, either by car or transit, but Regional Activity Centers also include higher density housing and must provide a safe environment for people walking and accessing transit.

Key Characteristics



Step 1. How many lanes are needed?

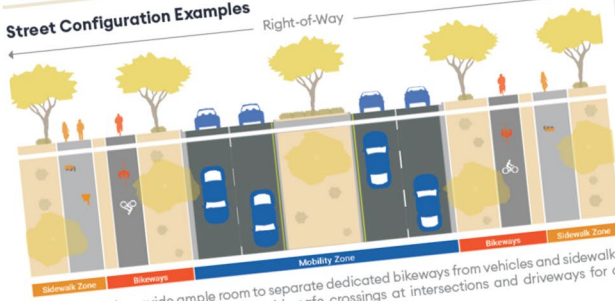


Step 2. Street Design Elements

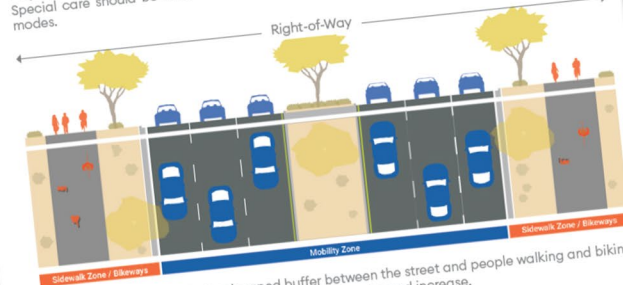
	Preferred	Allowable Range
MOBILITY ZONE		
Travel & Turn Lane Width	11'	10 - 11'
Median Width	14 - 20'	11 - 24'
Corner Turning Radii	25'	25 - 30'
BIKEWAYS		
Bikeway Width (one-way)	6'	5 - 7'
Bikeway Buffer Width	3'	2 - 5'
Shared-Use Path Width*	8'	6 - 10'
SIDEWALK ZONE		
Sidewalk Width	8 - 12'	3 - 15'
Landscaped Buffer Width	800'	800 - 2600'
Pedestrian Crossing Frequency		

*A shared use path acts as both the bikeway and sidewalk

Street Configuration Examples



Major arterials provide ample room to separate dedicated bikeways from vehicles and sidewalks. Special care should be taken to provide safe crossings at intersections and driveways for all modes.



The importance of a wide, landscaped buffer between the street and people walking and biking increases as the number of travel lanes, volumes, and speed increase.

Calming traffic speeds is essential to create a safe, attractive environment for people walking and biking on major arterials in Regional Activity Centers.

Center Medians: Planted center medians (C) narrow the field of vision for drivers and can result in slower vehicle speeds.

Signal Coordination: Signals should be timed to enable the progression of vehicles traveling at the speed limit and to disincentivize speeding

Speed Feedback Sign: Speed limits may be lowered adjacent to schools and speed feedback signs help remind drivers that they are passing through a slower travel zone.



Bicycle Guidance

Major arterials in Regional Activity Centers must provide a safe environment for people biking to access jobs, services, and commercial centers.

Bikeway Option 1: Off-Street Shared Use Paths (D) should be applied where bike and pedestrian volumes are anticipated to be low and very limited crossings (driveways and intersections) are present.

Bikeway Option 2: Off-Street Cycle Ways (E) are one-way bicycle-only paved paths on each side of street with buffers between them and the street and sidewalks. They should be used in areas of higher bike and pedestrian activity.

Bikeway Option 3: If off-street bikeway is not feasible, an on-street lane with a buffer and concrete curb protection (F) is recommended.

Median Guidance

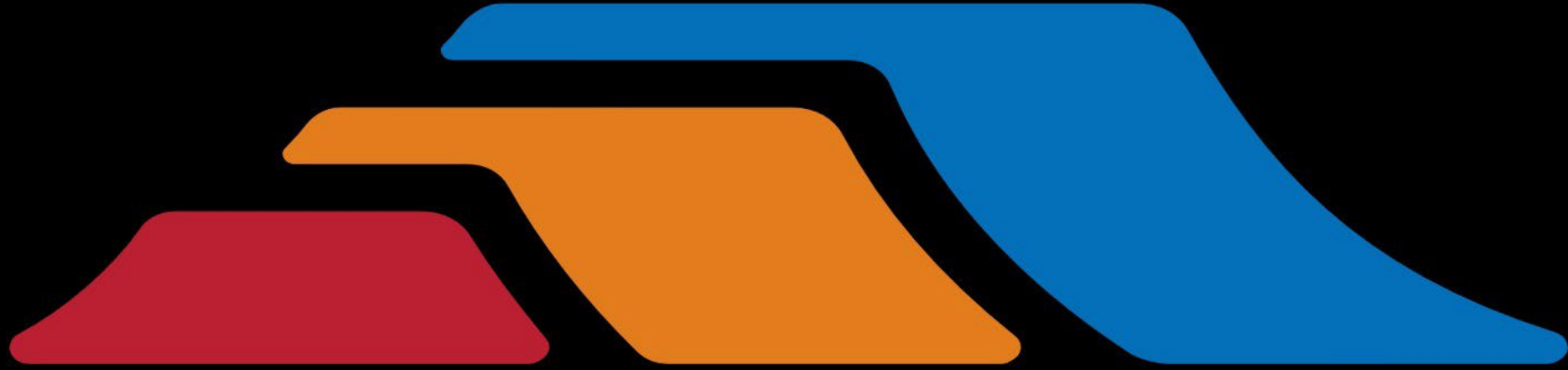
Major arterials often have a raised median with center turn lanes. Design of the raised median should focus on visually narrowing the street, which slows traffic, and also provide pedestrian and bicycle refuge space for two-stage crossings. Green infrastructure and street lighting can also be included in raised medians.

Transit Guidance

Transit shelters should be provided at every stop to offer protection from the sun and wind and a place to sit. Each stop should include information on the routes that service that stop and their schedules. Off-street bicycle lanes are recommended for streets with transit stops to prevent conflicts. For on-street bikeways, clear markings should highlight conflict areas.

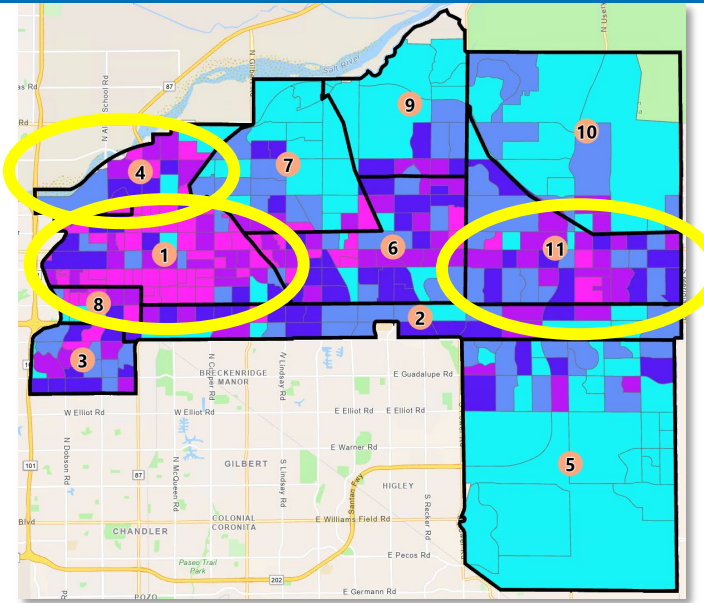
EXAMPLE ONLY

QUESTIONS OR COMMENTS



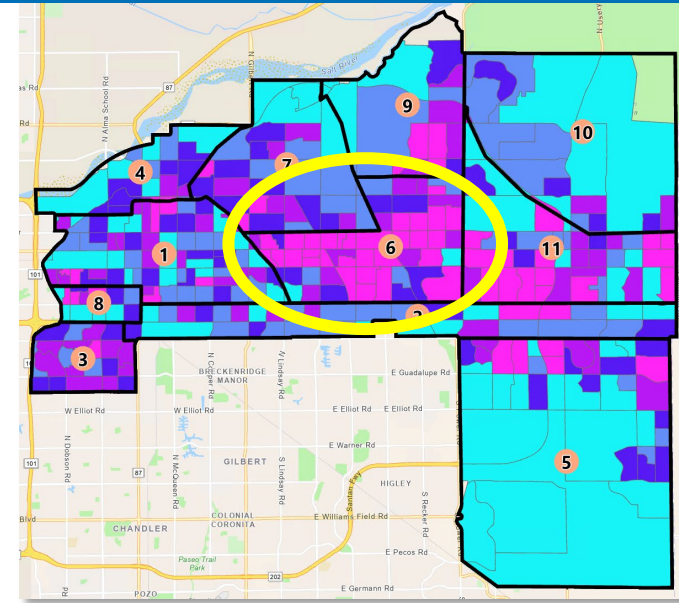
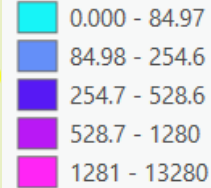
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TRAVEL SHEDS – SOCIOECONOMIC OVERLAYS



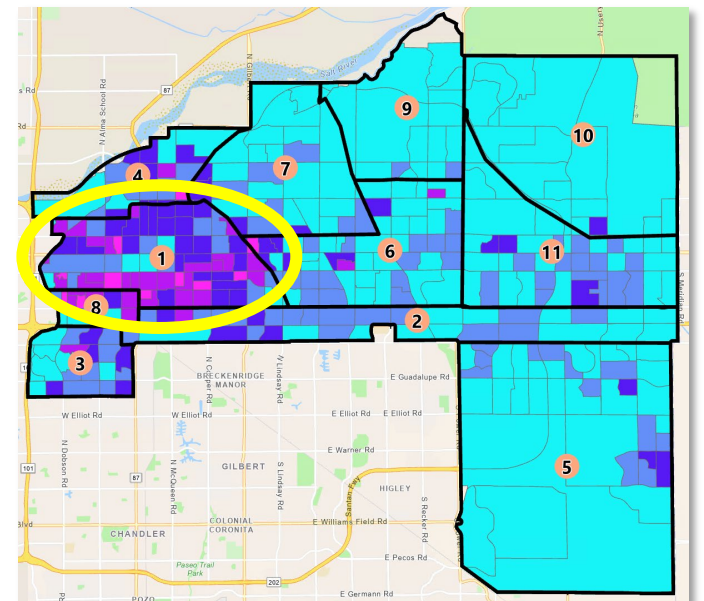
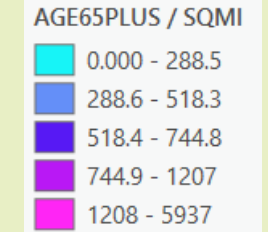
Poverty

Population Below Poverty Per Sq Mi



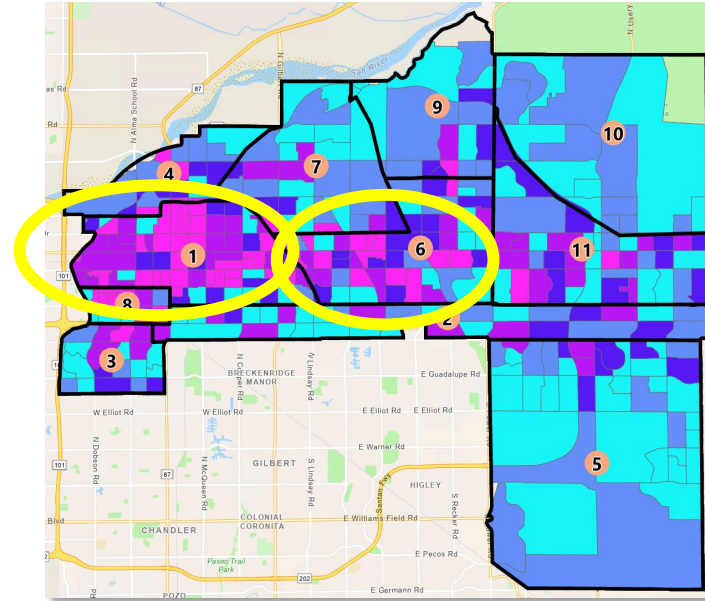
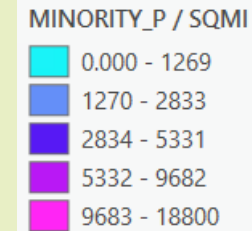
Elderly Population

Elderly Population Per Sq Mi



Minorities

Minority Population Per Sq Mi



Zero Car Households

Households with Zero-Vehicles Per Sq Mi

