

APPENDIX B – COMMUNITY ENGAGEMENT MATERIALS

- Community Engagement Plan;
- Transportation Survey Infographic;
- Transportation Survey Results;
- Public Meeting Materials;
- Stakeholder Workshop Presentation;
- Stakeholder Workshop Meeting Notes;
- Transportation Commission Presentations; and
- Transportation Commission Meeting Notes.



City of Chandler

Transportation Master Plan

COMMUNITY ENGAGEMENT PLAN

The purpose of this Community Engagement Plan (Plan) is to provide a roadmap for the City of Chandler Transportation Master Plan Project Team to involve and engage Chandler's public and key City stakeholders in the planning process.

December 5, 2018

MakPro Services, LLC

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Engaging the community and key City stakeholders helps develop a plan which can be implemented, sustained and supported by the community.

Community Engagement Goals

Strategic Highlights

The purpose of this Community Engagement Plan (Plan) is to provide a roadmap for the City of Chandler and the Kimley-Horn Transportation Master Plan (TMP) Project Team to involve and engage Chandler’s public and area stakeholders in the planning process.

This Plan should be used as a framework, revised as necessary as the planning process evolves, to engage and inform interested public and area stakeholders regarding the Plan. The goals of this Plan are to:

- identify the roles and responsibilities of the City of Chandler and the Project Team in implementing the community engagement plan for the project.
- identify the approach and community engagement timeline for the project.
- identify communications and strategies to be used to inform and engage stakeholders regarding the project.

The Community Engagement Team will work closely with the City of Chandler staff and public information officer (PIO) in coordinating efforts to communicate with stakeholders.

It should be noted that Valley Metro, in coordination with the City of Chandler, is concurrently conducting an alignment study for transit needs along Arizona Avenue and efforts as part of this community engagement plan will include information related to that study. It will be important to convey to stakeholders and the community that, while the information is being provided as part of the Transportation Master Plan process, these are actually two different studies on two different tracks, timelines and approval processes.

Plan Messaging

Plan messaging will be developed early on in the planning process, and may include:

- A Transportation Master Plan is a critical component in guiding the City’s transportation planning efforts.
- Chandler’s transportation system for arterial roadways is reaching maturity with many arterial streets already improved or planned to be improved to the ultimate configuration.

- With Chandler’s prominence as the “most connected city”, maintaining and enhancing pedestrian and bicycle access remains a key consideration in planning.
- As Chandler’s population grows and the transportation systems evolves, transit continues to be an important transportation alternative.
- Exploring how new transportation alternatives and technology impact the transportation system will help the project team develop strategies to meet future transportation needs.
- Community input is vital to the planning process – we need your help!

Additional messages, themes and possibly branding or logos may be identified through coordination with the City of Chandler.

Marketing & Awareness

How do we reach stakeholders who want to be engaged to make them aware the planning process is taking place? It's important the project team provide input and feedback mechanisms for those that wish to participate in the planning process. While those will include the traditional methods, such as stakeholder and public meetings, it's also important to get a sense of what's working now and what may be important to consider for the future.

So, it's important we let the Chandler community know the planning process is underway and we need them to participate.

The following strategies will be used to reach out to those that may be interested in participating and, prior to deploying these strategies, communication tools identified later in this document will need to be developed and in place:

Engaging Key Stakeholders: Key stakeholder engagement will take place through the process identified in the **Stakeholder Engagement** section of this document. Ensuring key stakeholders remain engaged and interested will be critical to the planning process.

Transportation On-Line Survey: A transportation on-line survey will be developed to seek input or comments related to how the existing transportation system is perceived and what transportation modes need improvement. A link to the survey will be provided on the project webpage and the community engagement team will work with the City's Public Information Office (PIO) and project team to determine additional outreach methods for survey input.

Special Events: As part of the engagement process, there may be events suitable for providing information related to the study and Transportation Master Plan (TMP) information cards or boards/posters can be provided to raise awareness or interest in the community.

Media Information: Detailed information related to the planning process can be provided to the traditional and social media channels to generate interest amongst their subscribers. In particular, periodicals such as the SanTan Sun News can be invaluable in providing information. The community engagement team will work with the City's PIO to identify opportunities for media distribution.

It's never too early to begin "marketing" to let interested individuals know about the planning process and how to get involved!

Stakeholder identification & engagement is a key first step in successful community engagement

Stakeholder Engagement

What is a stakeholder? A stakeholder, for these purposes, is a key individual, group or entity, who lives, travels, or conducts business in the Chandler area, and whose activities, operations, or visitors influence the transportation system in a significant way.

Stakeholder Identification: Stakeholder identification and engagement is vital to the overall community engagement process. While the community engagement process will have several opportunities for the broader public to participate, this work is most effectively done when the team has done some preparatory work with key stakeholders to understand their needs and concerns related to the effort, and to solicit their comments or feedback when it comes to transportation components for Chandler.

To conduct this work, the project team will develop a **list of key stakeholders** which currently influences or may in the future influence Chandler's transportation system. Key stakeholders for these purposes may include, but not be limited to the following:

- Chandler Unified School District
- Chandler Regional Hospital
- Chandler-Gilbert Community College or other higher education
- Chandler Mall (destination)
- Downtown Chandler Community Partnership (DCCP)
- East Valley Partnership
- Large Business interest (i.e., Bashas')
- Large Neighborhoods for resident representation: Ocotillo for south and someone for north
- Sun Lakes HOA
- Older historic neighborhoods
- Chandler Chamber of Commerce
- Price Corridor (i.e., Wells Fargo, Intel, Orbital, or Paypal)
- Chandler Developer (i.e., Red Development or Gilbert Road business center)
- Bicycle Group representation
- ADA representation
- Senior Center or assisted living (i.e., The Enclave, Chandler Memory Care, Solterra)
- Chandler/Gilbert Arc
- Parks representative (major events)

The project team will work with the City to review this list to finalize a suitable, appropriate list of stakeholders and determine which would be most beneficial to engage during the planning process, and identify specific individuals to be invited within the stakeholder groups.

Stakeholder Workshops: This initial stakeholder list will be used for the project team to invite selected individuals or organizational/neighborhood representatives to participate in Stakeholder Workshops for the Transportation Master Plan, whose discussions will assist in informing the planning process and developing public meeting materials and plan elements.

Stakeholder workshops will also assist the project team by providing a forum for discussions related to transportation plan components and being able to solicit feedback or comments related to plan vision, objectives, conditions, and desired outcomes for the transportation system. While public meetings will also be used for these purposes, stakeholder workshops will provide consistency and continuity in discussions with representative groups remaining static and providing a mechanism for ongoing communications when needed.

It is anticipated there will be 4-5 workshops throughout the course of the planning process, each lasting 1-2 hours, with the initial stakeholder workshop ideally taking place prior to the first round of public meetings. Agendas and materials for stakeholder workshops will be developed by the project team and reviewed by the City to ensure the materials are substantive, meet the objectives for the meeting and are respectful of the participant's time.

Opportunities for the public to help shape the future of Chandler's Transportation System through the planning process.

Public Engagement

As part of the planning process, there will be two rounds of public meetings for the public to learn about and participate in the transportation master planning process. Each meeting will include sign-in sheets to track attendees and comment forms for those who do not wish to provide comments during the meeting. In addition, each event will be noticed via the following mechanisms:

- Updates to the webpage
- Information provided to stakeholder workshop participants to disseminate through their channels
- Eblasts and social media networks (i.e., NextDoor, Twitter, FaceBook through the City's existing network)
- Local newsletters/media information

INITIAL PUBLIC MEETINGS (Public Meetings 1-3): The first round of public meetings will be somewhat of a public scoping effort to explain the objectives of the planning process, why a transportation master plan is important, how it guides the City's efforts, and why community input is important. For the convenience of residents and businesses throughout Chandler, meetings will be held on three different nights, in three different locations in Chandler.

FINAL PUBLIC MEETING (Public Meeting 4). One city-wide public meeting will be held once the draft Transportation Master Plan is developed and prior to finalizing and presenting to the Transportation Commission or City Council. This will provide an opportunity for stakeholders and the public to learn about the final plan components and recommendations and provide their comments for consideration in making changes to finalize the plan.

Our tool box of resources for the variety of ways we may communicate



Communication Tools & Resources

How can interested individuals find information or contact the project team? It's

important that the planning process information be prominently displayed on any project collateral, both traditional and digital formats, for interested individuals to quickly be able to find out about the project and its progress. This will be done through a variety of mechanisms, to include the following:

Title VI and Bilingual Outreach Information: It will be important to engage non-English speakers or others with disabilities in the project area so all project information, collateral and communications should include Title VI language to provide the greatest opportunity for participation and thoughtful, understandable communications between the project team and the community. This will ensure that any special needs required for potential meeting participants can be accommodated, to include direct translation during public meetings or stakeholder workshops, as needed.

Project Webpage: A project webpage will be developed by the project team with project information, schedule, progress, upcoming events, and how to contact the project team or stay involved.

In addition, the on-line survey link will be available through the project webpage and will provide an opportunity to supplement the planning efforts by maintaining a stakeholder listing of those interested in the study.

Project Collateral: A variety of project collateral may be used to accommodate the various outreach efforts, some of which are listed below:

- **TMP Information Cards:** This collateral will be used to distribute on-site at public meetings, events or other public outreach efforts as a quick reference to the planning process.
- **Banners or Posters:** Exhibits/boards, banner buds or posters are ideal to provide information or enhance booths at events and public meetings. These can provide static general information regarding the project and be mobile enough to take to various functions or leave at designated local public places where interested stakeholders may congregate.

Mailers/Notifications: As part of the traditional outreach, mailers or notifications may be developed for distribution to residents, neighborhoods, and/or businesses to inform them of upcoming meetings and the planning process.

E-Blasts: Mailers, notifications and project progress can be distributed through the City of Chandler channels to those interested in the planning process.

Community, School, Church or Neighborhood: As needed, information will be provided to community, school, church, or association newsletters or bulletins for organizations in Chandler to share with those on their distribution who may be interested in the planning process.

Press Releases: To ensure the broader public that may not be connected into the internet or social media receive the messaging, the traditional news outlets may be engaged in coordination with the City's Public Information Officer (PIO). This may include the City's channel or other opportunities for broader reach.

Social Media: Social media through the City of Chandler's social media networks to include Facebook, Twitter, and NextDoor will be invaluable in getting the word out about the project and upcoming events.

Schedule & Timeline

Provided below is a tentative communication engagement timeline for sequencing of outreach related to the process. Sequencing and specific timing is estimated and subject to change based on community engagement and project progress. This schedule will remain flexible based on the progress of the project.

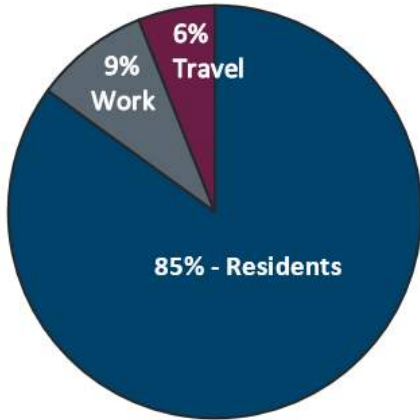
Nov - Dec 2018	Jan 2019	Feb - Jul 2019	Aug 2019
<ul style="list-style-type: none"> • Establish communication tools & webpage • Stakeholder Identification & Invite • Survey development 	<ul style="list-style-type: none"> • Survey Launch • Stakeholder Workshop 1 • Initial Public Meetings (3 in various locations) 	<ul style="list-style-type: none"> • Stakeholder Workshops (2-3) • Survey tracking & compilation • Special Events • Develop Draft TMP Plan 	<ul style="list-style-type: none"> • Final Stakeholder Workshop • City-wide Public Meeting (Draft Final TMP Report) • Finalize TMP Plan

This Plan is meant to be a guideline for the project team's community engagement efforts; however, it must be revisited and updated as necessary throughout the planning process.

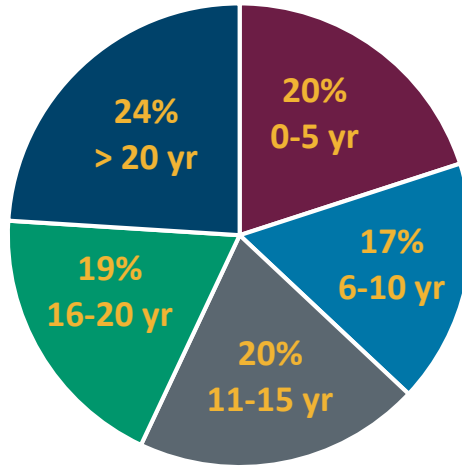
Comments or suggestions to improve this plan are welcome and invited.

Survey results – by the numbers

Interest in Chandler
Transportation because ...



Residents have lived in Chandler ...

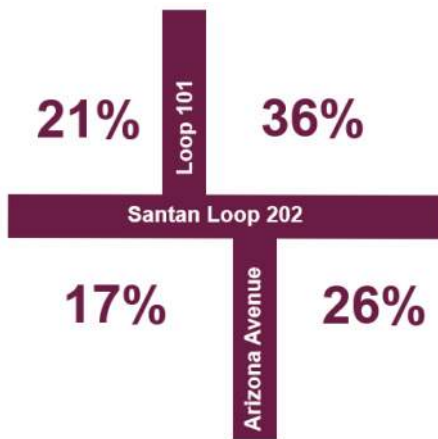


1,075 Total Responses

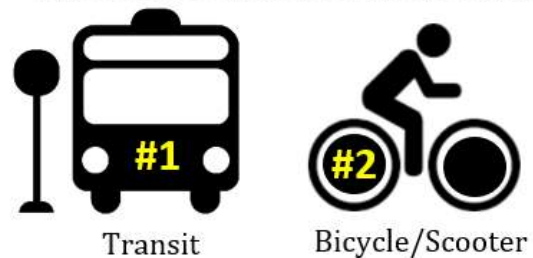
When asked why they were interested in a specific mode and what features were important ...

	Automobile	Bicycle	Pedestrian	Transit
Why this mode?	<ol style="list-style-type: none"> 1. Convenience 2. Cost-effective 3. Leisure/recreation 	<ol style="list-style-type: none"> 1. Leisure/recreation 2. Environmental sustainability 3. Cost-effective 	<ol style="list-style-type: none"> 1. Leisure/recreation 2. Environmental sustainability 3. Convenience 	<ol style="list-style-type: none"> 1. Cost-effective 2. Convenience 3. Environmental sustainability
What is important?	<ol style="list-style-type: none"> 1. Quick travel time 2. Ease of access 3. Feeling safe 	<ol style="list-style-type: none"> 1. Feeling safe 2. Ease of access 3. Multiple route options 	<ol style="list-style-type: none"> 1. Feeling safe 2. Comfort/attractive features 3. Ease of access 	<ol style="list-style-type: none"> 1. Quick travel time 2. Ease of access 3. Feeling safe

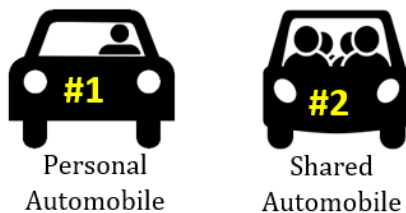
When asked where they primarily travel in Chandler ...



Mode of Travel the City should invest in
Most & Second Most in the future



Current Primary & Secondary
Mode of Travel

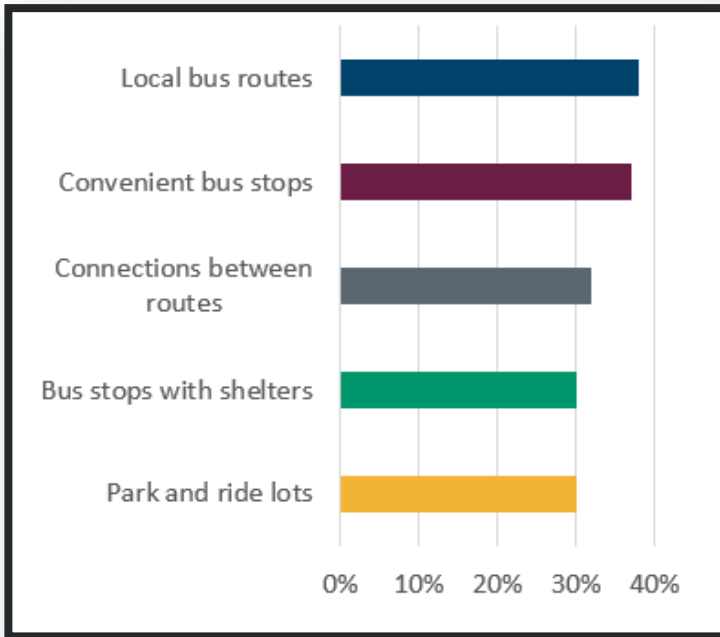


Mode of travel respondents believe will be their
primary mode in 20 years

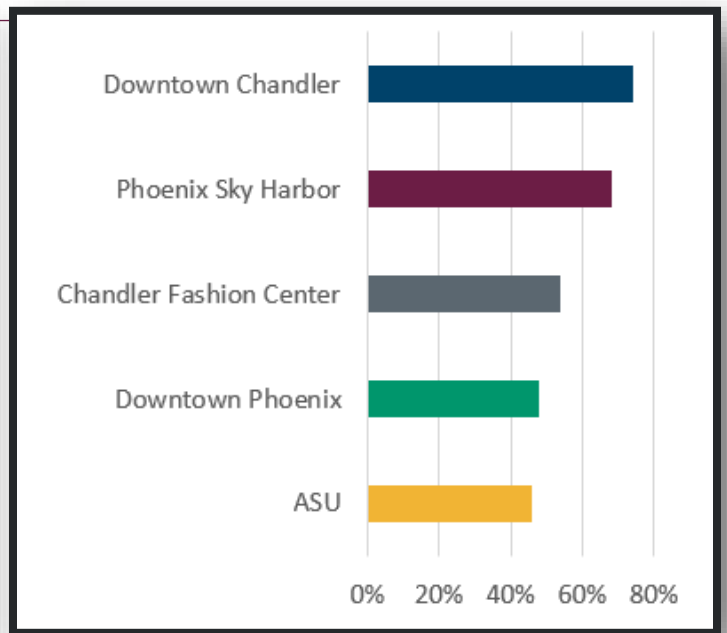


For travel by Transit in Chandler . . .

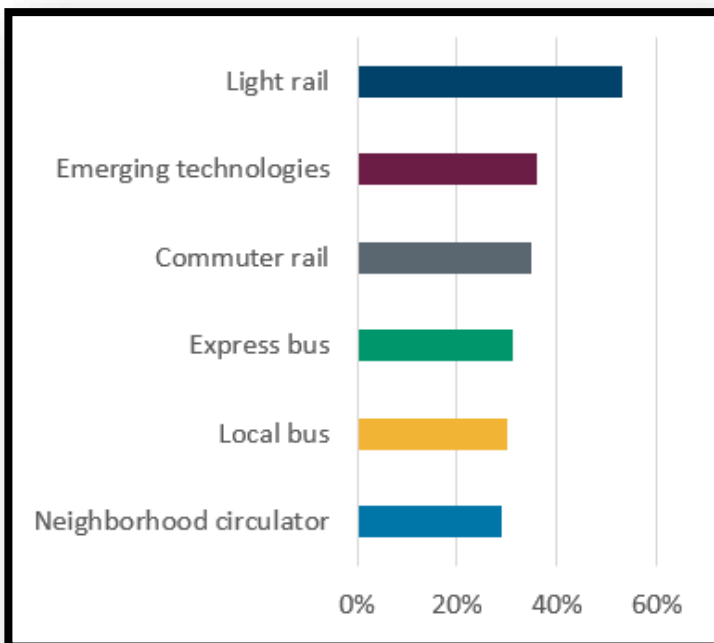
Most important features for respondents are...



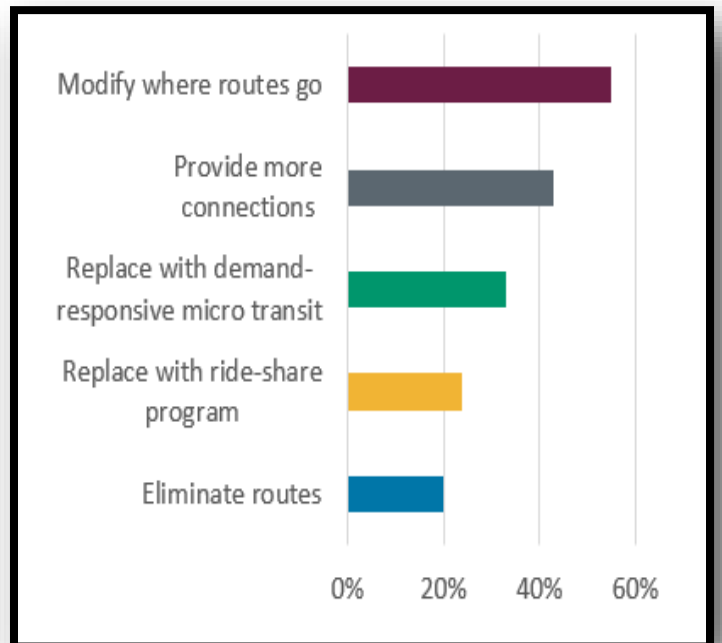
Important destinations respondents believe Transit should serve . . .



For longer-term transit improvements, respondents believe the City should prioritize . . .

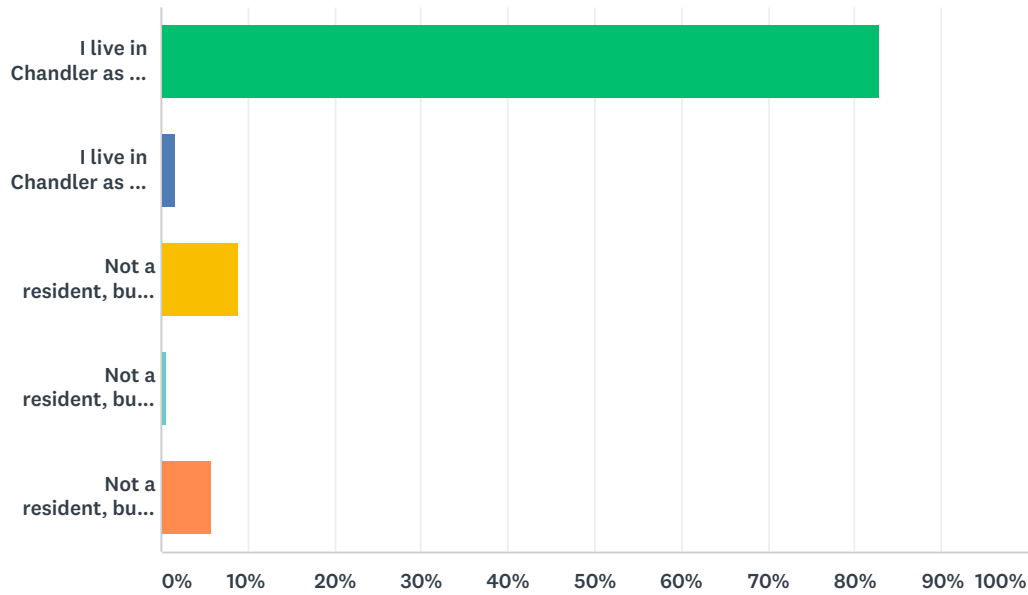


For transit routes with low ridership, respondents believe the following should be done . . .



Q1 Please indicate your interest in Chandler transportation.

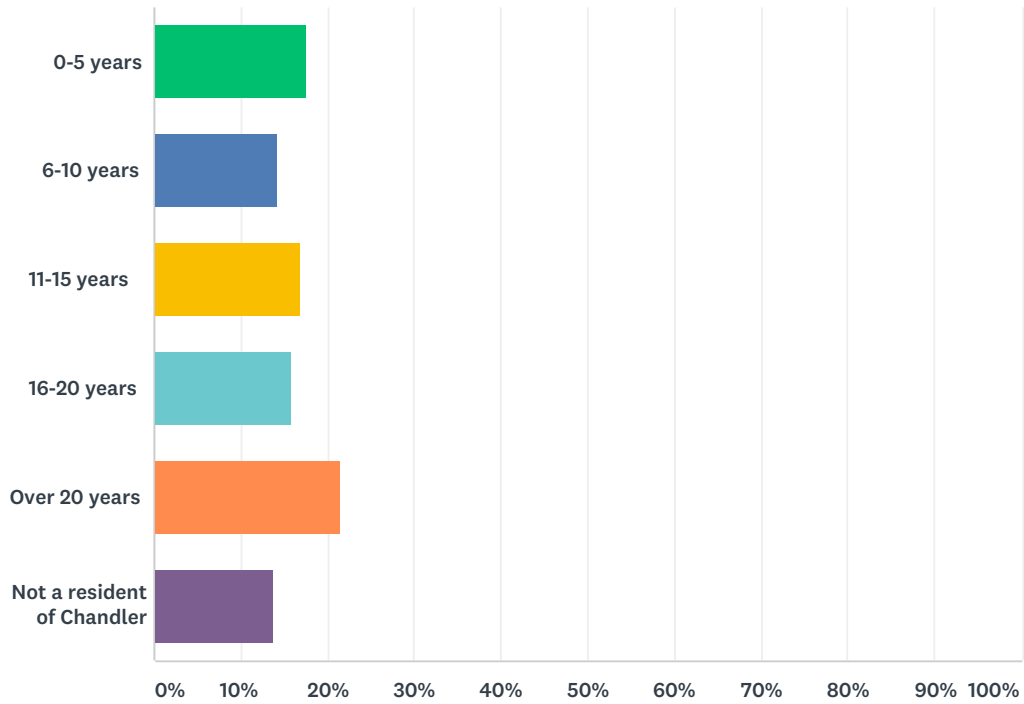
Answered: 1,054 Skipped: 21



ANSWER CHOICES	RESPONSES	
I live in Chandler as a full-time resident	82.83%	873
I live in Chandler as a part-time resident (seasonal visitor)	1.71%	18
Not a resident, but I work in Chandler	9.01%	95
Not a resident, but I own property in Chandler	0.57%	6
Not a resident, but I travel regularly in Chandler	5.88%	62
TOTAL		1,054

Q2 If a resident, how long have you lived in Chandler?

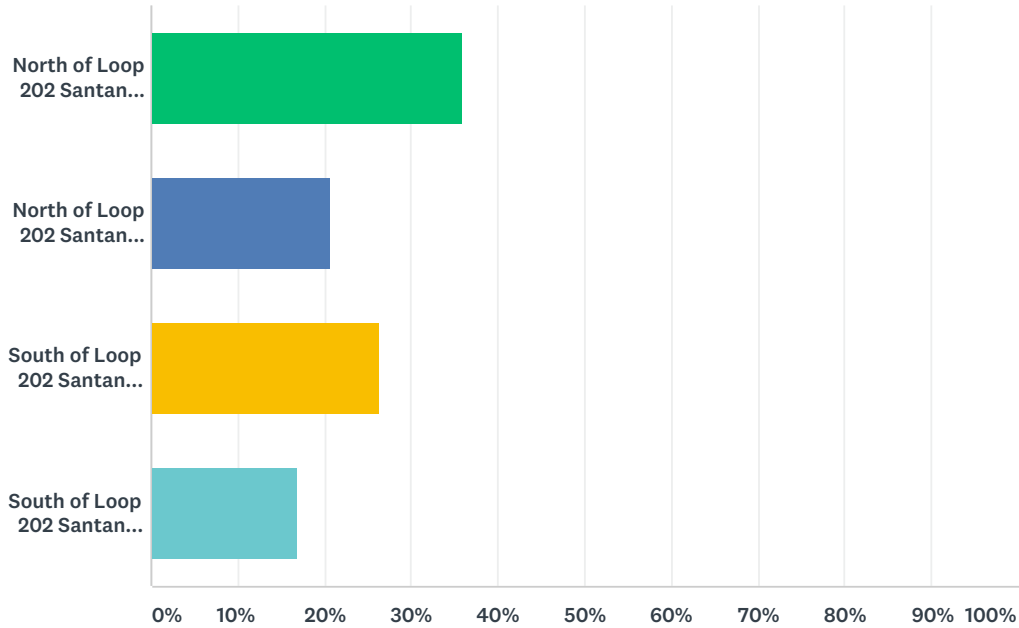
Answered: 1,045 Skipped: 30



ANSWER CHOICES	RESPONSES	
0-5 years	17.61%	184
6-10 years	14.26%	149
11-15 years	16.84%	176
16-20 years	15.98%	167
Over 20 years	21.53%	225
Not a resident of Chandler	13.78%	144
TOTAL		1,045

Q3 In what area of Chandler do you primarily travel?

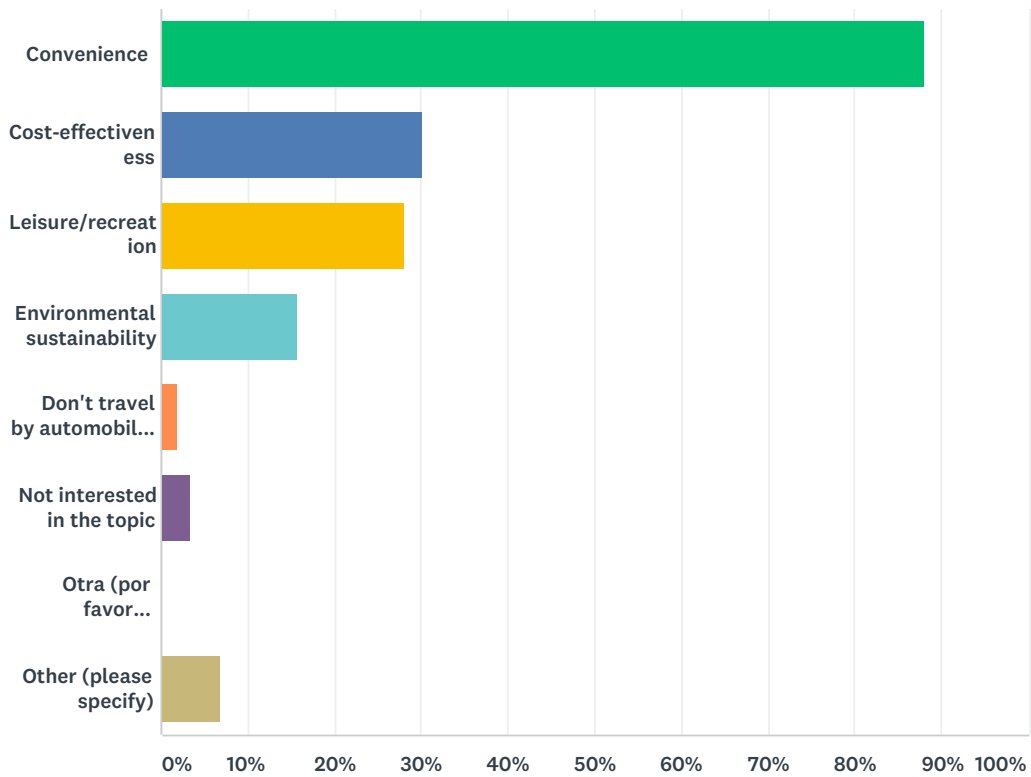
Answered: 1,043 Skipped: 32



ANSWER CHOICES	RESPONSES	
North of Loop 202 Santan Freeway and East of the Loop 101	36.05%	376
North of Loop 202 Santan Freeway and West of Loop 101	20.61%	215
South of Loop 202 Santan Freeway and East of Arizona Avenue	26.37%	275
South of Loop 202 Santan Freeway and West of Arizona Avenue	16.97%	177
TOTAL		1,043

Q4 Why are you most interested in automobile travel? (Please select up to 2 responses only)

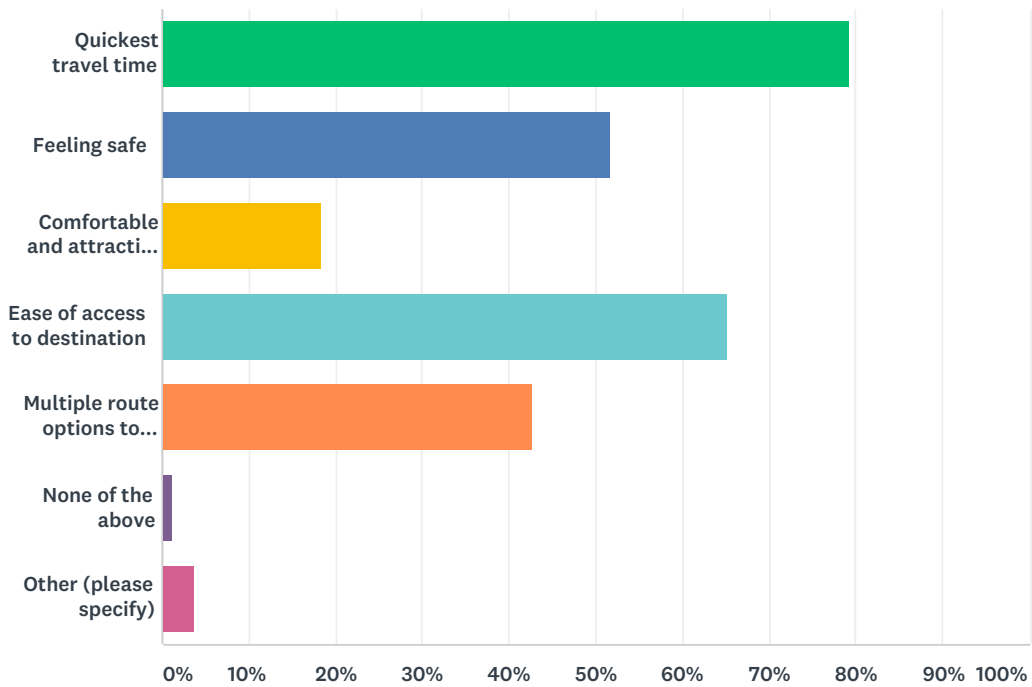
Answered: 1,021 Skipped: 54



ANSWER CHOICES	RESPONSES	
Convenience	88.05%	899
Cost-effectiveness	30.17%	308
Leisure/recreation	28.11%	287
Environmental sustainability	15.67%	160
Don't travel by automobile but interested in the topic	1.96%	20
Not interested in the topic	3.43%	35
Otra (por favor especifica)	0.00%	0
Other (please specify)	6.95%	71
Total Respondents: 1,021		

Q5 For automobile travel in Chandler, which of the following is most important to you? (Please select up to 3 responses only)

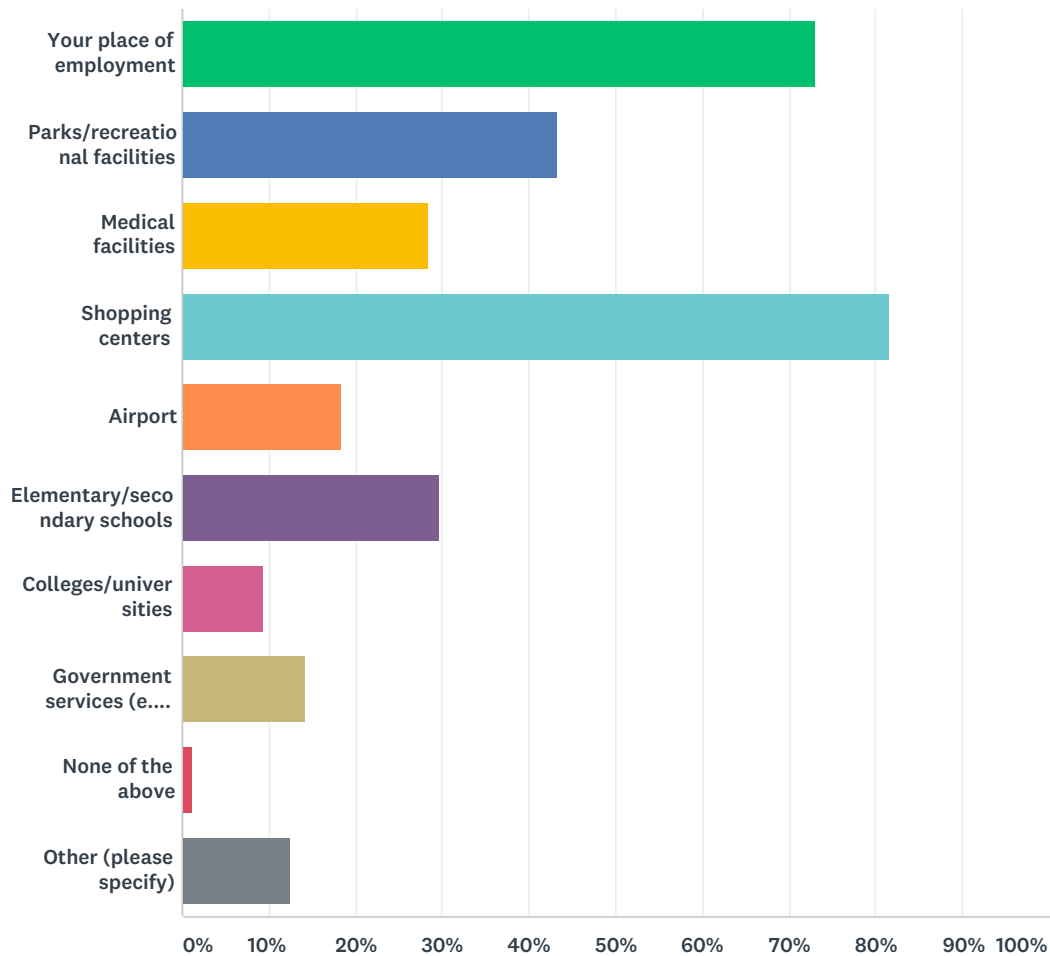
Answered: 1,022 Skipped: 53



ANSWER CHOICES	RESPONSES	
Quickest travel time	79.26%	810
Feeling safe	51.76%	529
Comfortable and attractive features	18.49%	189
Ease of access to destination	65.36%	668
Multiple route options to destination	42.66%	436
None of the above	1.27%	13
Other (please specify)	3.82%	39
Total Respondents: 1,022		

Q6 Which destinations do you travel to most by automobile? (Please select up to 4 responses only)

Answered: 1,023 Skipped: 52

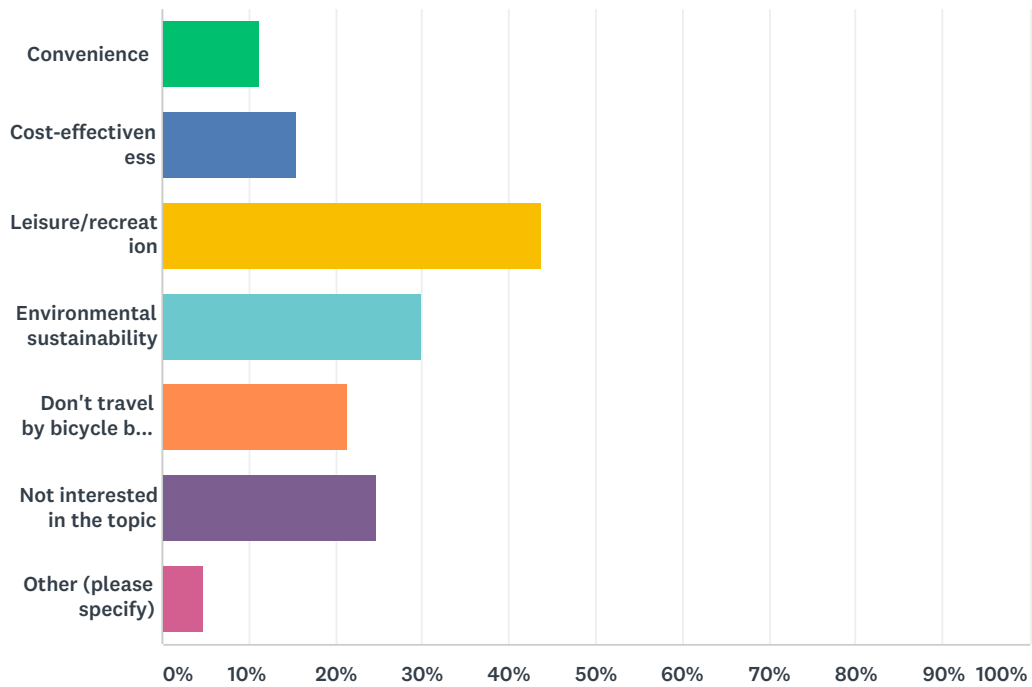


ANSWER CHOICES	RESPONSES	
Your place of employment	73.02%	747
Parks/recreational facilities	43.21%	442
Medical facilities	28.45%	291
Shopping centers	81.52%	834
Airport	18.48%	189
Elementary/secondary schools	29.72%	304
Colleges/universities	9.38%	96
Government services (e.g., library, City Hall, MVD)	14.27%	146
None of the above	1.17%	12
Other (please specify)	12.51%	128

Total Respondents: 1,023

Q7 Why are you most interested in bicycle travel? (Please select up to 2 responses only)

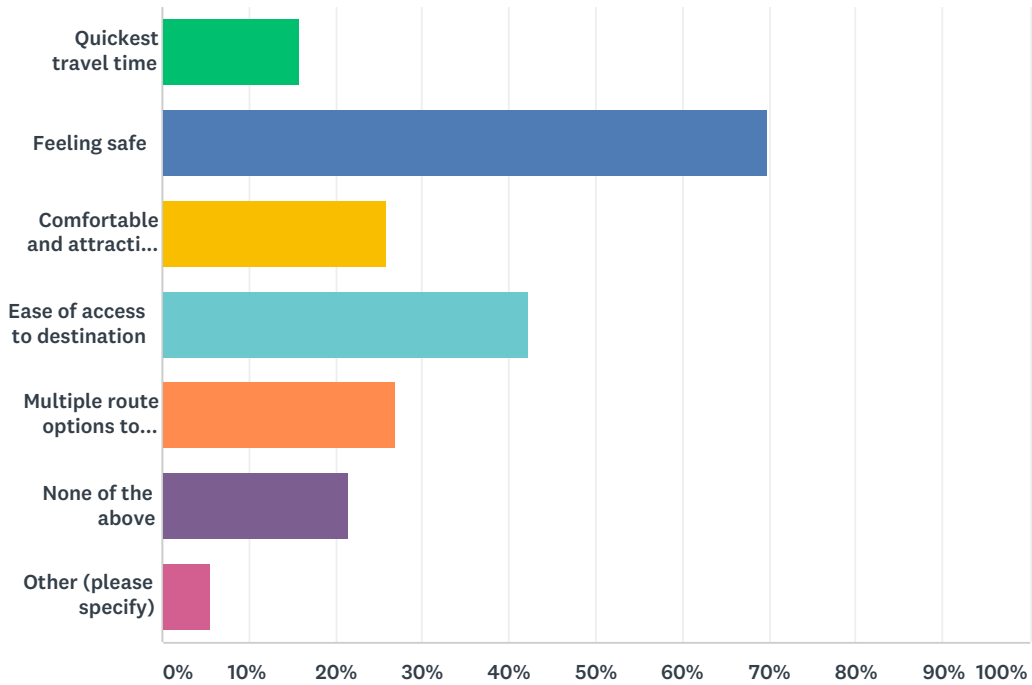
Answered: 1,009 Skipped: 66



ANSWER CHOICES	RESPONSES	
Convenience	11.30%	114
Cost-effectiveness	15.56%	157
Leisure/recreation	43.81%	442
Environmental sustainability	29.93%	302
Don't travel by bicycle but interested in the topic	21.41%	216
Not interested in the topic	24.78%	250
Other (please specify)	4.76%	48
Total Respondents: 1,009		

Q8 For bicycle travel in Chandler, which of the following is most important to you? (Please select up to 3 responses only)

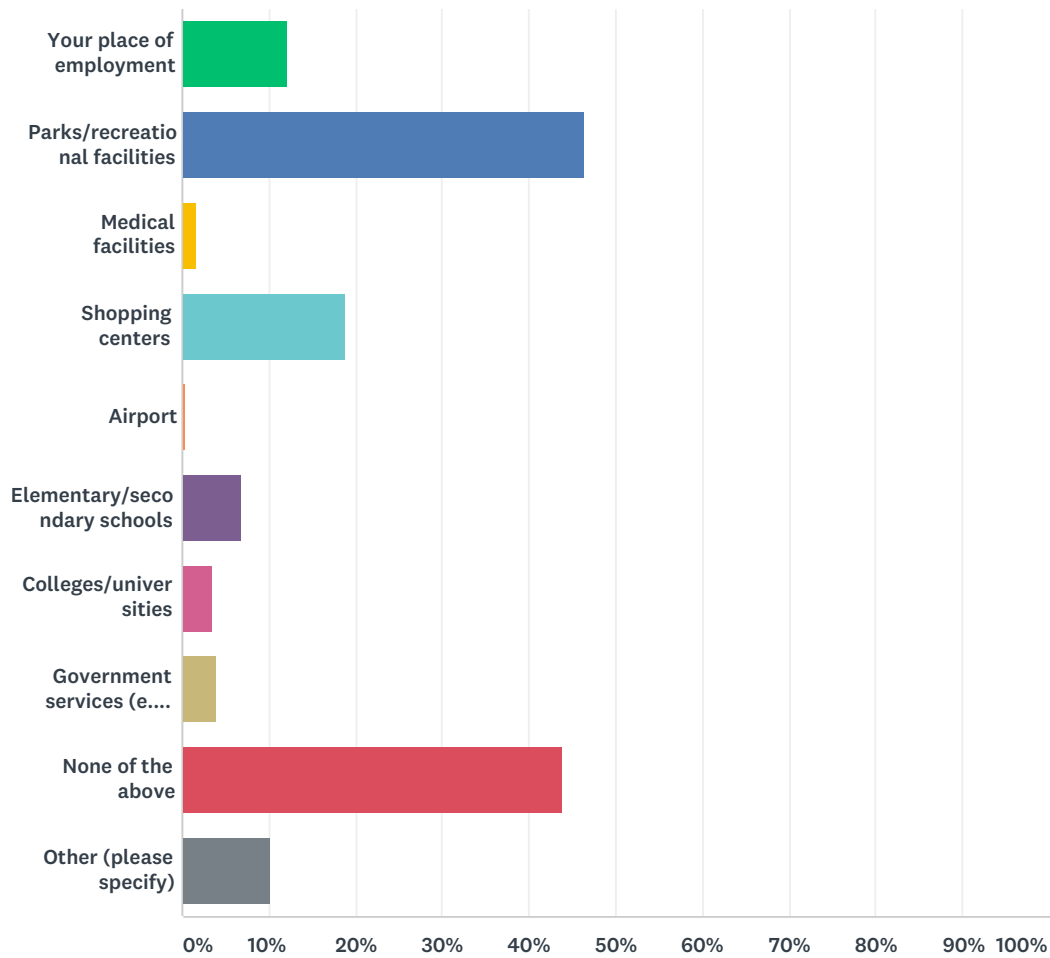
Answered: 977 Skipped: 98



ANSWER CHOICES	RESPONSES	
Quickest travel time	15.86%	155
Feeling safe	69.91%	683
Comfortable and attractive features	26.00%	254
Ease of access to destination	42.17%	412
Multiple route options to destination	26.92%	263
None of the above	21.60%	211
Other (please specify)	5.73%	56
Total Respondents: 977		

Q9 Which destinations do you travel to most by bicycle? (Please select up to 4 responses only)

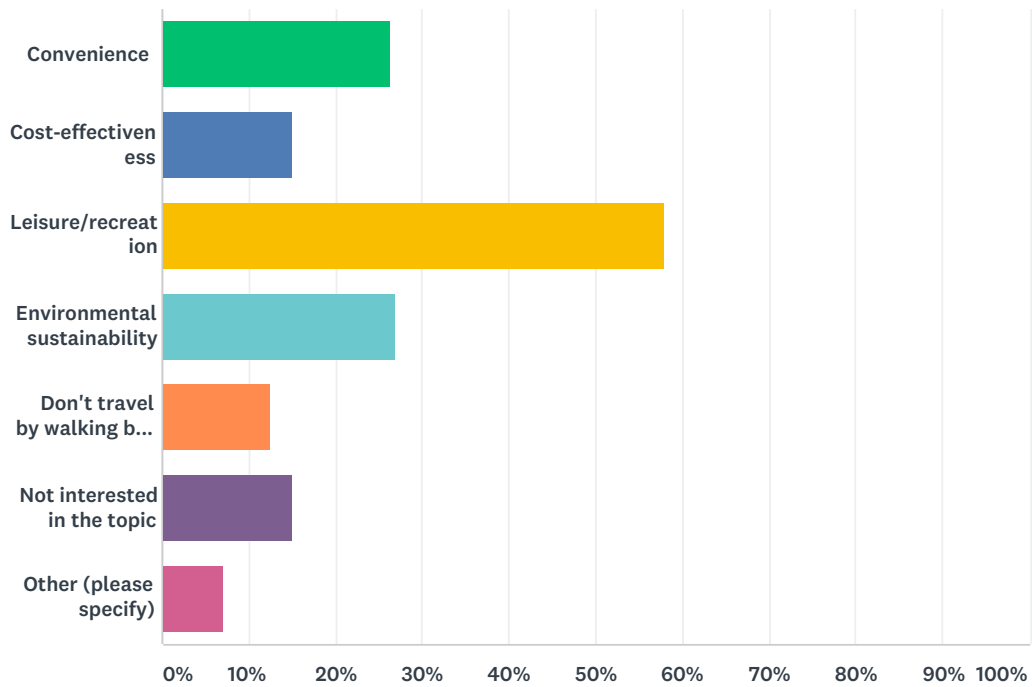
Answered: 966 Skipped: 109



ANSWER CHOICES	RESPONSES	
Your place of employment	12.11%	117
Parks/recreational facilities	46.48%	449
Medical facilities	1.76%	17
Shopping centers	18.74%	181
Airport	0.52%	5
Elementary/secondary schools	6.94%	67
Colleges/universities	3.52%	34
Government services (e.g., library, City Hall, MVD)	3.93%	38
None of the above	44.00%	425
Other (please specify)	10.35%	100

Q10 Why are you most interested in pedestrian travel (e.g., walking)? (Please select up to 2 responses only)

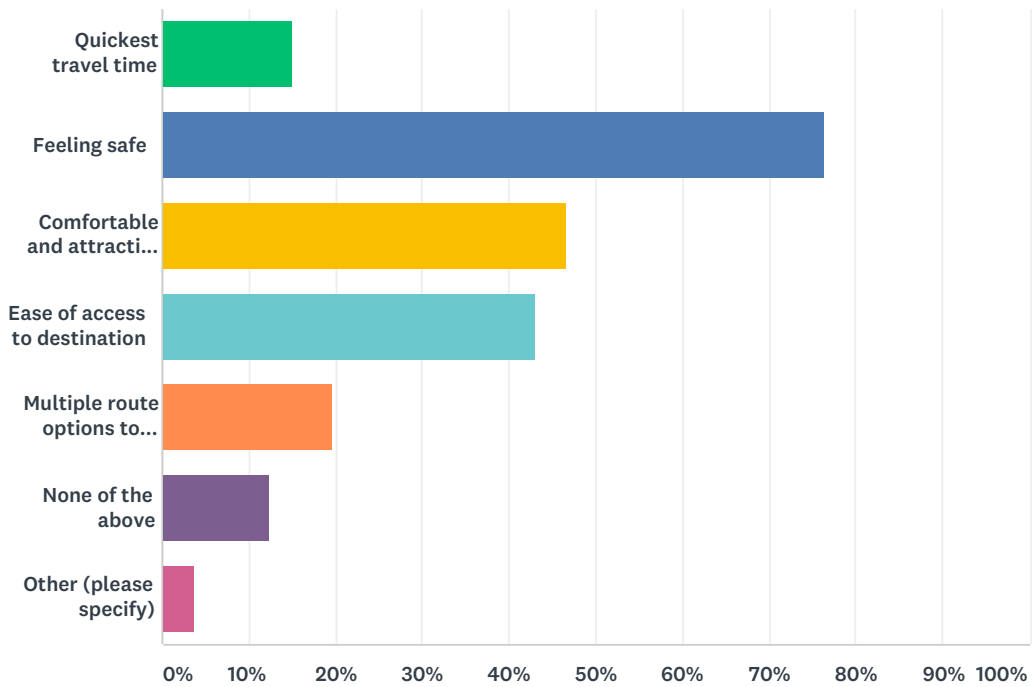
Answered: 997 Skipped: 78



ANSWER CHOICES	RESPONSES	
Convenience	26.38%	263
Cost-effectiveness	15.15%	151
Leisure/recreation	57.87%	577
Environmental sustainability	27.08%	270
Don't travel by walking but interested in the topic	12.54%	125
Not interested in the topic	15.05%	150
Other (please specify)	7.02%	70
Total Respondents: 997		

Q11 For pedestrian travel in Chandler, which of the following is most important to you? (Please select up to 3 responses only)

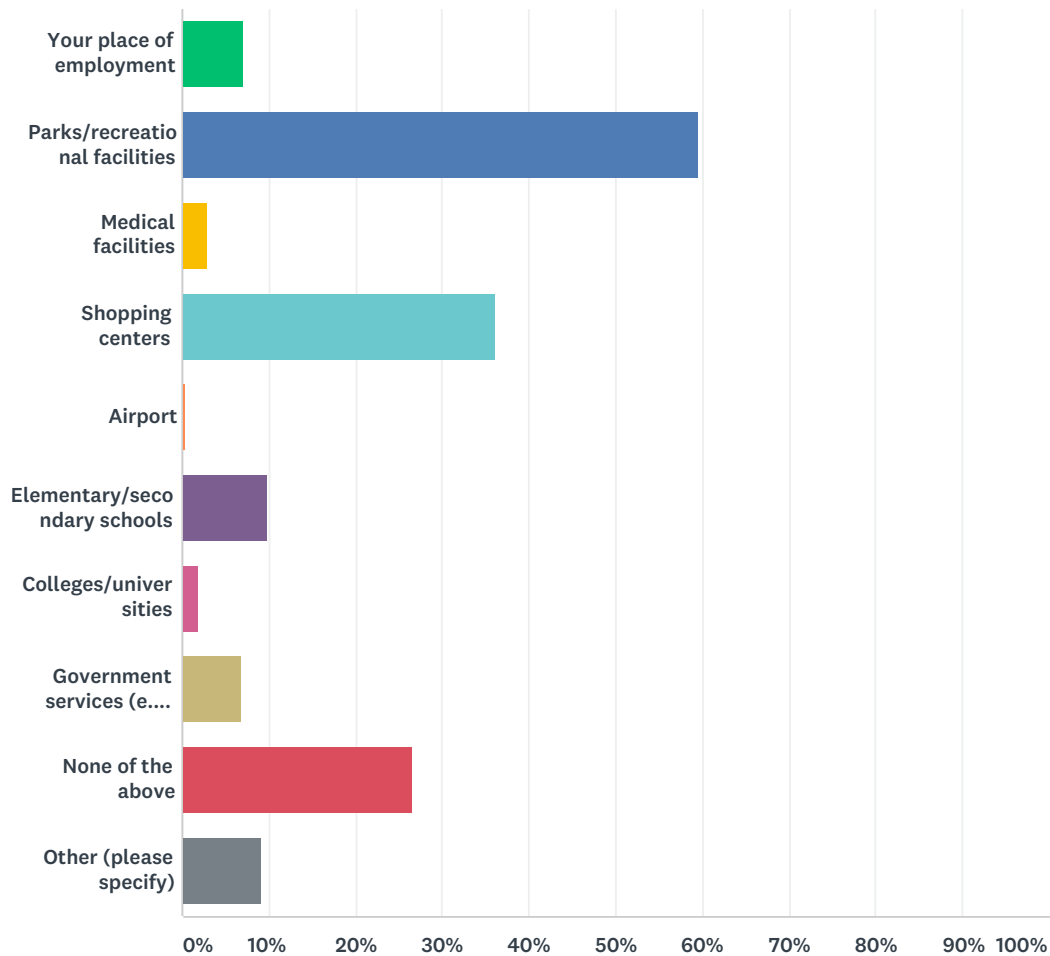
Answered: 977 Skipped: 98



ANSWER CHOICES	RESPONSES	
Quickest travel time	15.15%	148
Feeling safe	76.46%	747
Comfortable and attractive features	46.67%	456
Ease of access to destination	43.19%	422
Multiple route options to destination	19.65%	192
None of the above	12.28%	120
Other (please specify)	3.68%	36
Total Respondents: 977		

Q12 Which destinations do you travel to most by walking? (Please select up to 4 responses only)

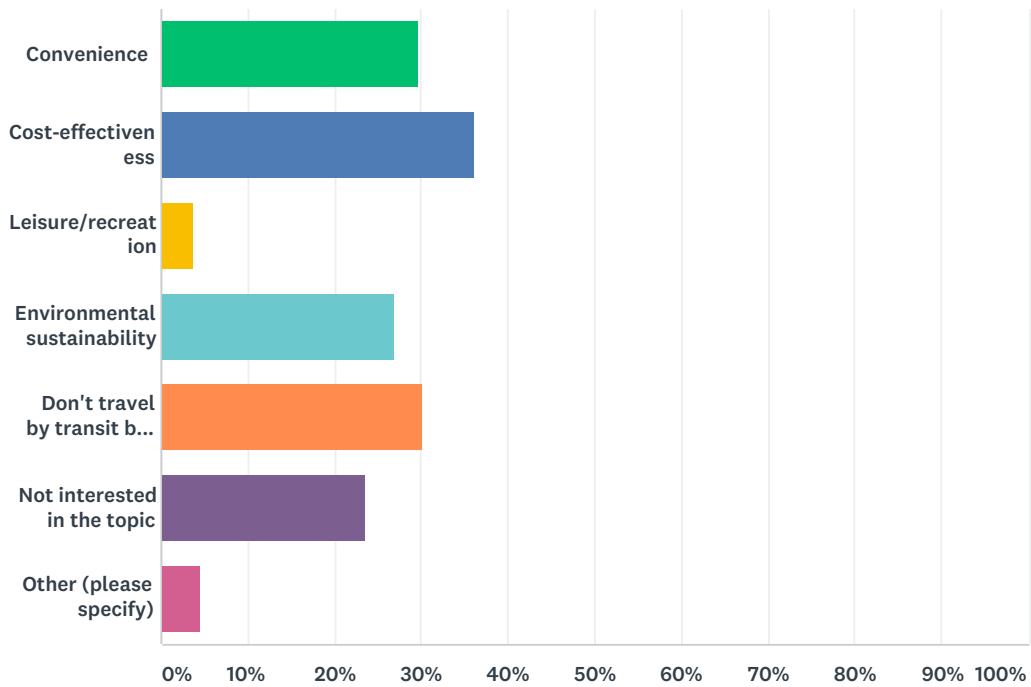
Answered: 969 Skipped: 106



ANSWER CHOICES	RESPONSES	
Your place of employment	7.02%	68
Parks/recreational facilities	59.55%	577
Medical facilities	2.89%	28
Shopping centers	36.22%	351
Airport	0.41%	4
Elementary/secondary schools	9.80%	95
Colleges/universities	1.96%	19
Government services (e.g., library, City Hall, MVD)	6.81%	66
None of the above	26.52%	257
Other (please specify)	9.29%	90

Q13 Why are you most interested in transit travel (e.g., bus)? (Please select up to 2 responses only)

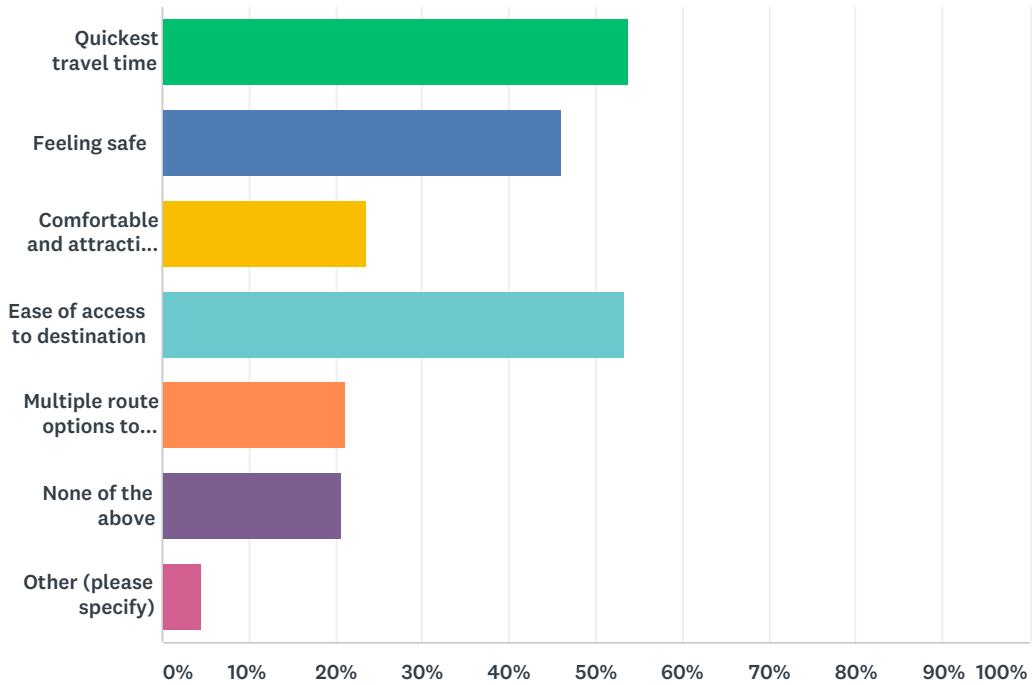
Answered: 957 Skipped: 118



ANSWER CHOICES	RESPONSES	
Convenience	29.78%	285
Cost-effectiveness	36.15%	346
Leisure/recreation	3.76%	36
Environmental sustainability	26.96%	258
Don't travel by transit but interested in the topic	30.20%	289
Not interested in the topic	23.72%	227
Other (please specify)	4.60%	44
Total Respondents: 957		

Q14 For transit travel in Chandler, which of the following is most important to you? (Please select up to 3 responses only)

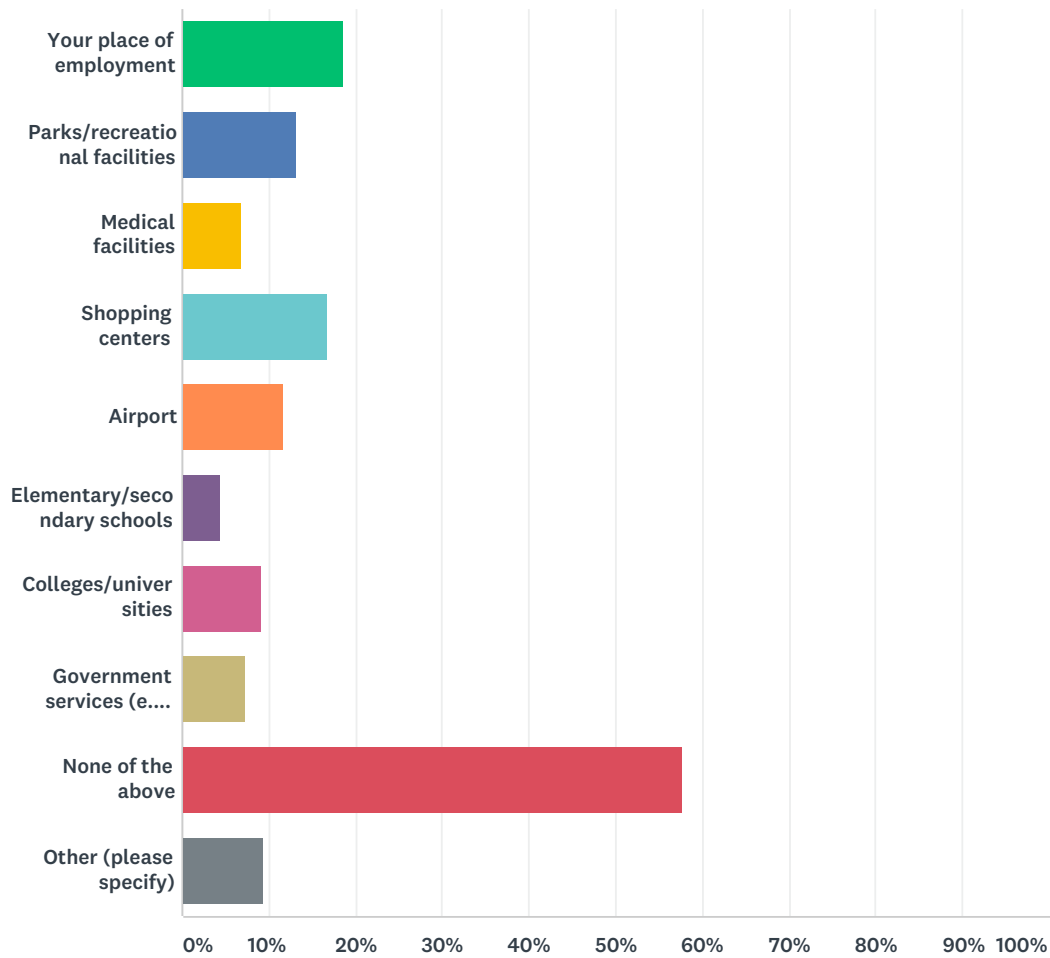
Answered: 927 Skipped: 148



ANSWER CHOICES	RESPONSES	
Quickest travel time	53.72%	498
Feeling safe	46.06%	427
Comfortable and attractive features	23.62%	219
Ease of access to destination	53.40%	495
Multiple route options to destination	21.14%	196
None of the above	20.71%	192
Other (please specify)	4.64%	43
Total Respondents: 927		

Q15 Which destinations do you travel to most by transit? (Please select up to 4 responses only)

Answered: 923 Skipped: 152

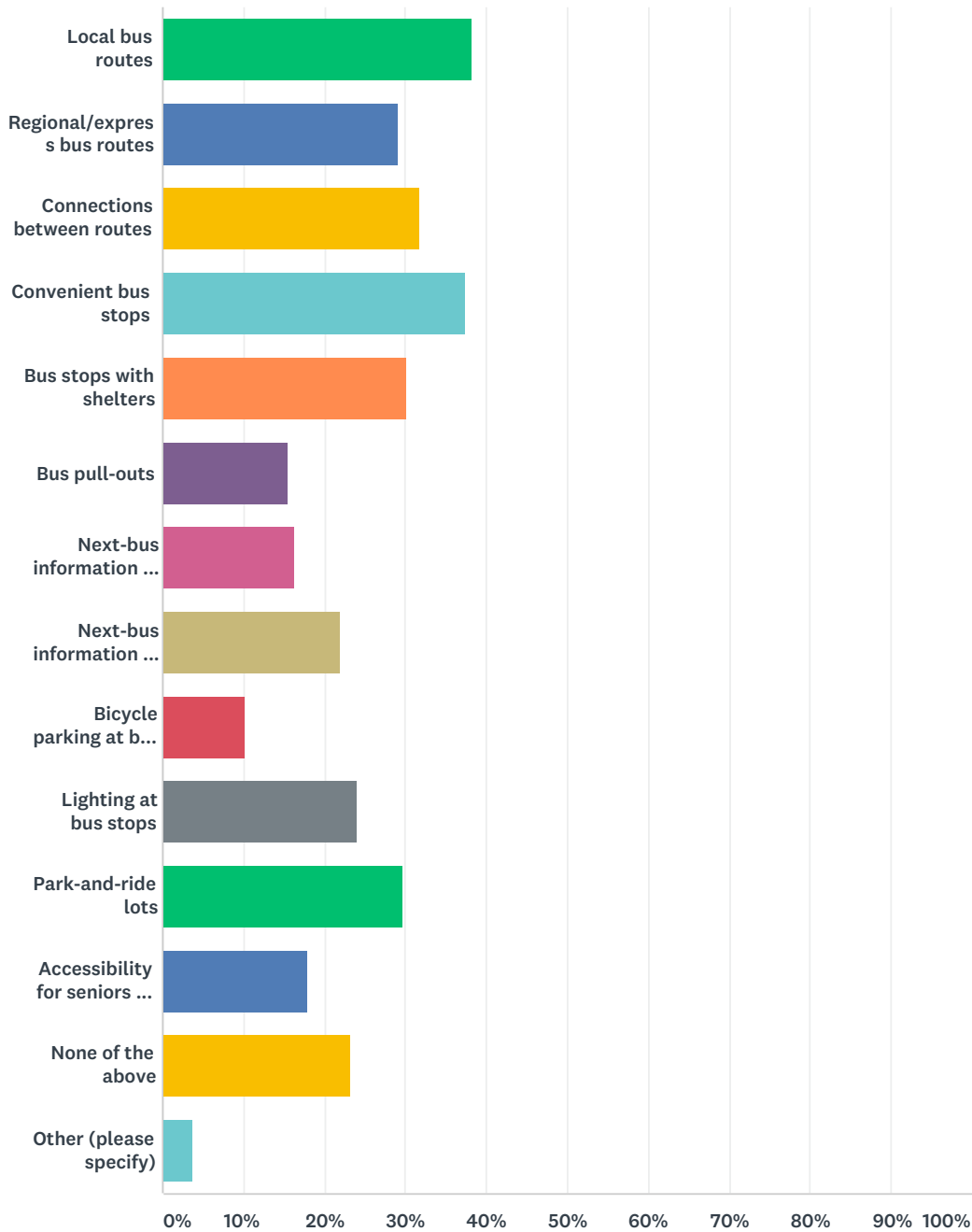


ANSWER CHOICES	RESPONSES	
Your place of employment	18.63%	172
Parks/recreational facilities	13.11%	121
Medical facilities	6.83%	63
Shopping centers	16.68%	154
Airport	11.81%	109
Elementary/secondary schools	4.44%	41
Colleges/universities	9.10%	84
Government services (e.g., library, City Hall, MVD)	7.37%	68
None of the above	57.64%	532
Other (please specify)	9.32%	86

Total Respondents: 923

Q16 For travel by transit in Chandler, which of the following existing features are most important to you? (Please select up to 5 responses only)

Answered: 914 Skipped: 161



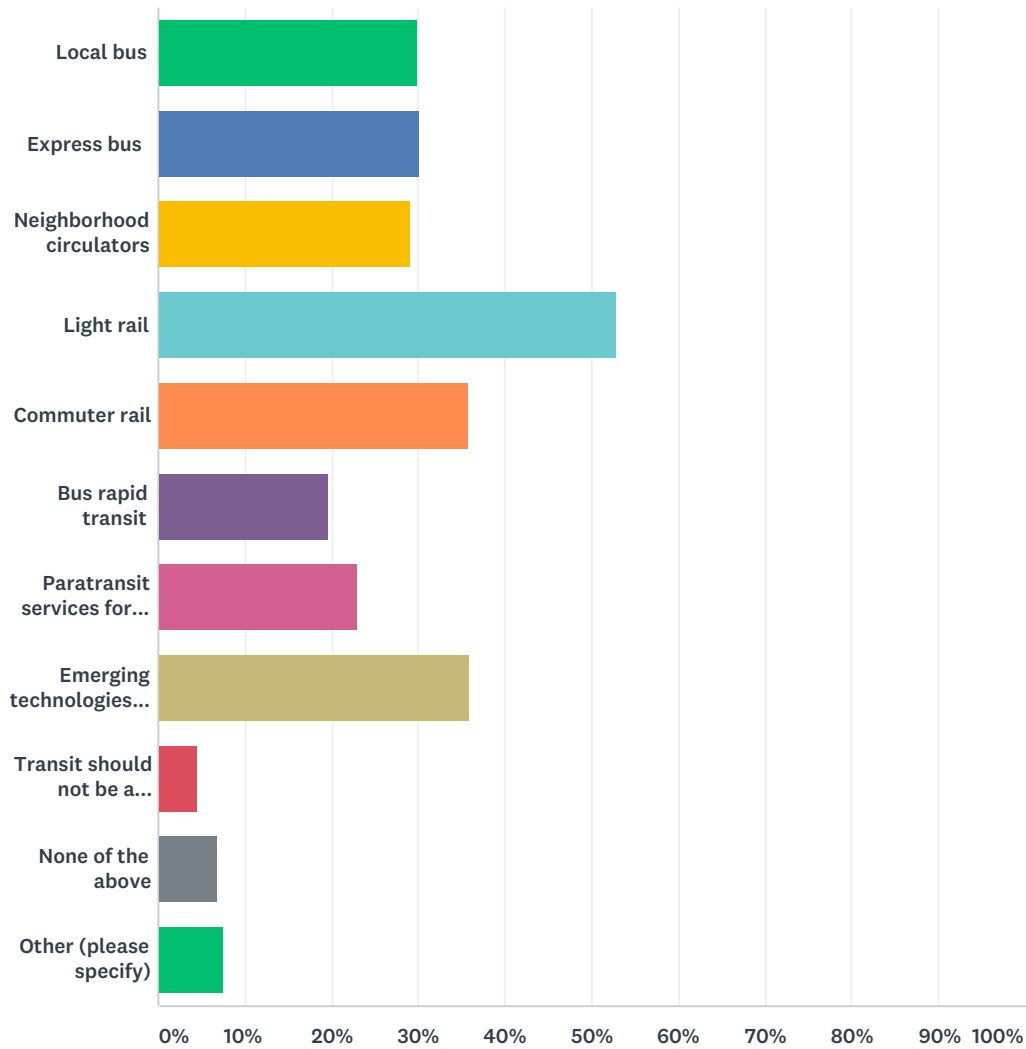
ANSWER CHOICES	RESPONSES	
Local bus routes	38.29%	350
Regional/express bus routes	29.10%	266
Connections between routes	31.73%	290

Chandler Transportation Master Plan 2019 Update

Convenient bus stops	37.42%	342
Bus stops with shelters	30.20%	276
Bus pull-outs	15.43%	141
Next-bus information at bus stops	16.30%	149
Next-bus information on smartphones	21.88%	200
Bicycle parking at bus stops	10.28%	94
Lighting at bus stops	23.96%	219
Park-and-ride lots	29.65%	271
Accessibility for seniors and those with disabilities	17.94%	164
None of the above	23.19%	212
Other (please specify)	3.72%	34
Total Respondents: 914		

Q17 Thinking of longer-term transit improvements, what transit mode(s) should the City prioritize in the future? (Please select up to 4 responses only)

Answered: 937 Skipped: 138



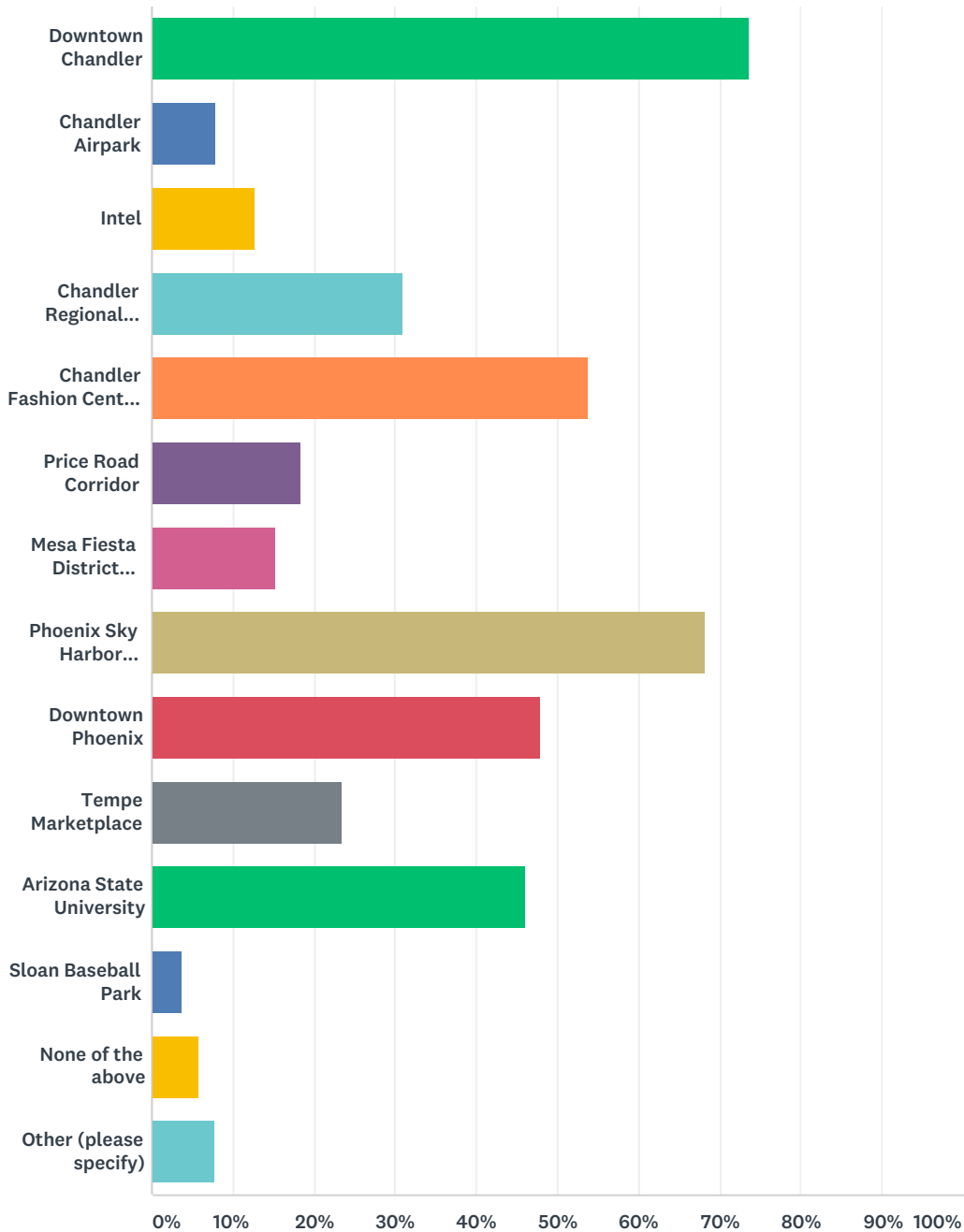
ANSWER CHOICES	RESPONSES	
Local bus	29.88%	280
Express bus	30.10%	282
Neighborhood circulators	29.03%	272
Light rail	52.93%	496
Commuter rail	35.86%	336
Bus rapid transit	19.74%	185
Paratransit services for seniors and people with disabilities	23.05%	216
Emerging technologies (e.g., driverless buses, on-demand transit)	36.07%	338

Chandler Transportation Master Plan 2019 Update

Transit should not be a priority in the future	4.59%	43
None of the above	6.83%	64
Other (please specify)	7.58%	71
Total Respondents: 937		

Q18 What do you believe are important destinations that transit should serve? (Please select up to 5 responses only)

Answered: 940 Skipped: 135



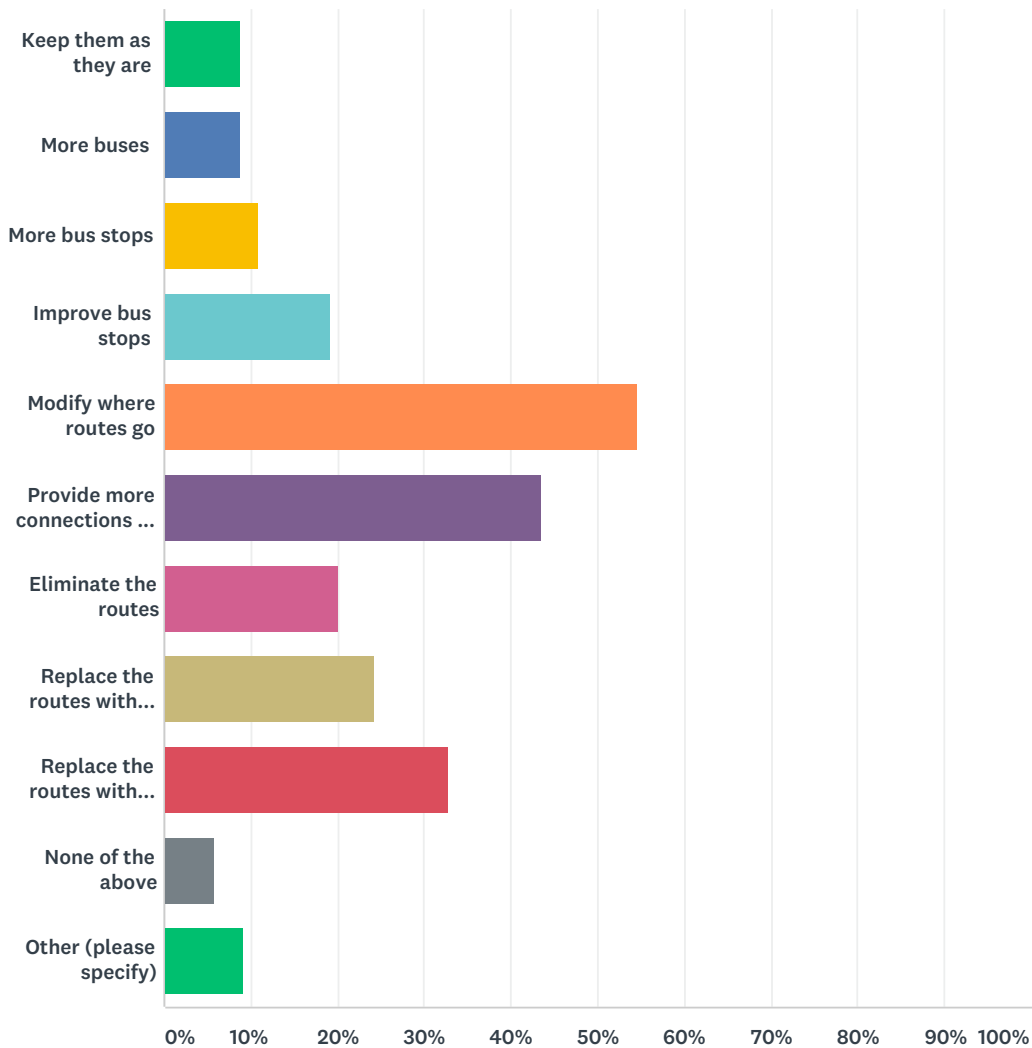
ANSWER CHOICES	RESPONSES	
Downtown Chandler	73.62%	692
Chandler Airpark	7.87%	74
Intel	12.66%	119
Chandler Regional Medical Center	31.06%	292

Chandler Transportation Master Plan 2019 Update

Chandler Fashion Center Mall	53.83%	506
Price Road Corridor	18.51%	174
Mesa Fiesta District (Banner Hospital/Mesa Community College)	15.32%	144
Phoenix Sky Harbor International Airport	68.30%	642
Downtown Phoenix	47.87%	450
Tempe Marketplace	23.51%	221
Arizona State University	45.96%	432
Sloan Baseball Park	3.83%	36
None of the above	5.96%	56
Other (please specify)	7.77%	73
Total Respondents: 940		

Q19 What should be done with transit routes that have low ridership? (Please select up to 4 responses only)

Answered: 925 Skipped: 150



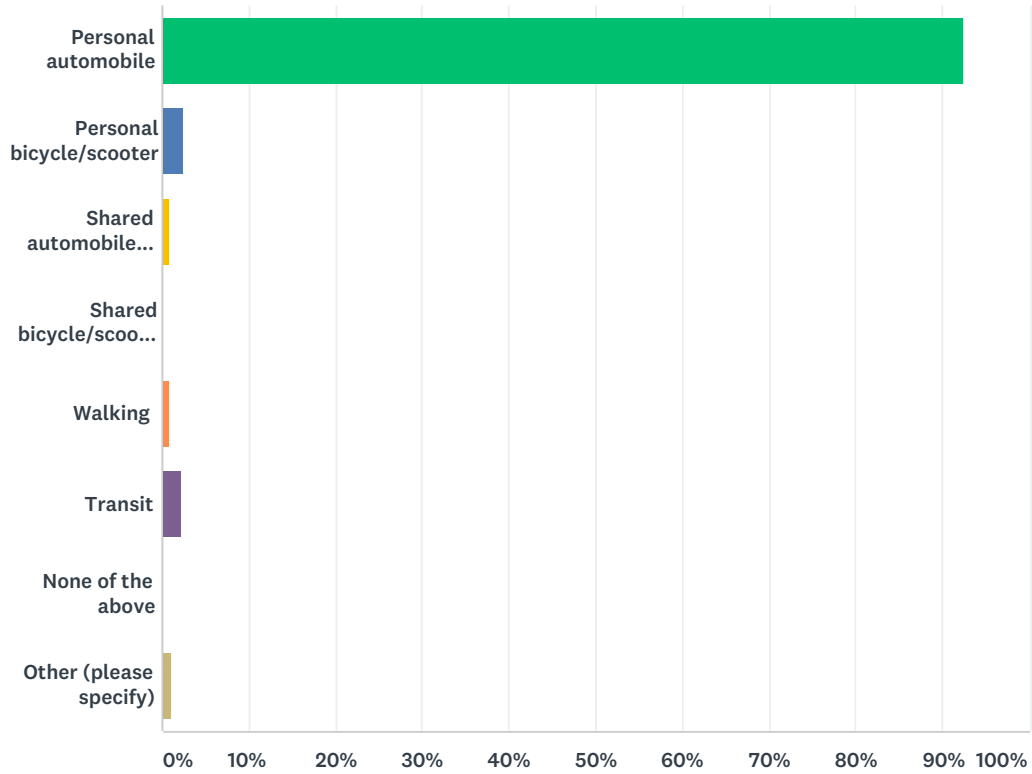
ANSWER CHOICES	RESPONSES	
Keep them as they are	8.76%	81
More buses	8.86%	82
More bus stops	10.92%	101
Improve bus stops	19.35%	179
Modify where routes go	54.59%	505
Provide more connections to other transit routes	43.46%	402
Eliminate the routes	20.11%	186
Replace the routes with ride-share program (e.g., Uber, Lyft)	24.32%	225
Replace the routes with demand-responsive microtransit (e.g., UberPool, private shuttles)	32.76%	303

Chandler Transportation Master Plan 2019 Update

None of the above	5.95%	55
Other (please specify)	9.30%	86
Total Respondents: 925		

Q20 What is your current PRIMARY MODE of travel?

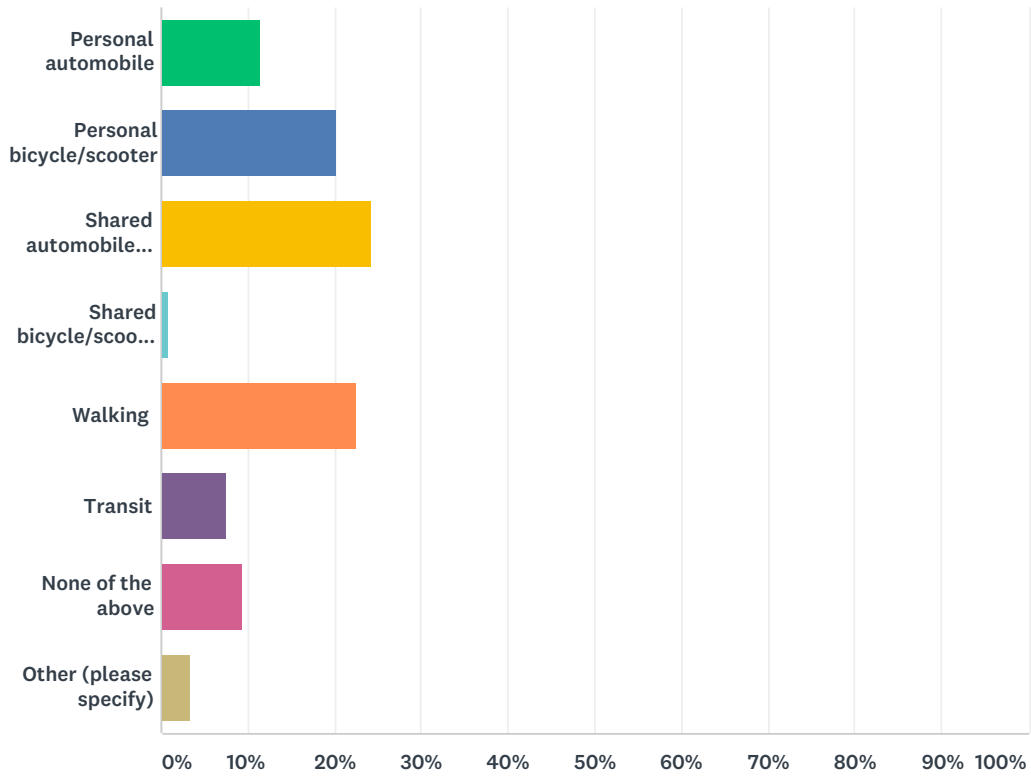
Answered: 936 Skipped: 139



ANSWER CHOICES	RESPONSES	
Personal automobile	92.41%	865
Personal bicycle/scooter	2.46%	23
Shared automobile (e.g., Uber, Lyft)	0.75%	7
Shared bicycle/scooter (e.g., Bird, Lime)	0.00%	0
Walking	0.85%	8
Transit	2.24%	21
None of the above	0.21%	2
Other (please specify)	1.07%	10
TOTAL		936

Q21 What is your current SECONDARY MODE of travel?

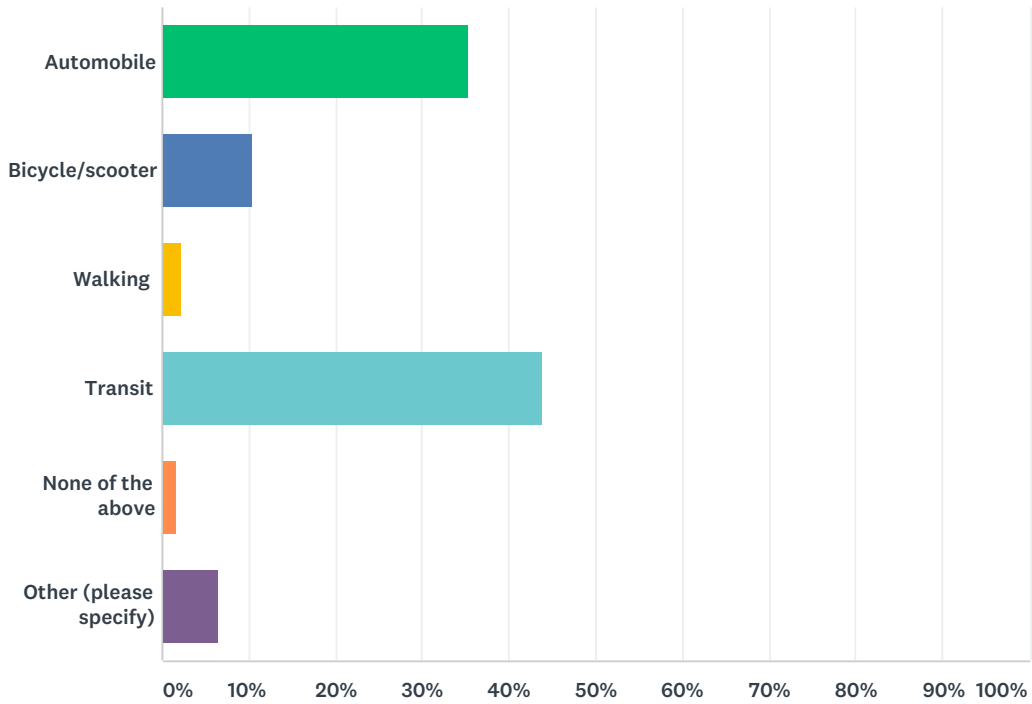
Answered: 943 Skipped: 132



ANSWER CHOICES	RESPONSES	
Personal automobile	11.56%	109
Personal bicycle/scooter	20.25%	191
Shared automobile (e.g., Uber, Lyft)	24.28%	229
Shared bicycle/scooter (e.g., Bird, Lime)	0.85%	8
Walking	22.69%	214
Transit	7.53%	71
None of the above	9.44%	89
Other (please specify)	3.39%	32
TOTAL		943

Q22 What mode of travel should the City invest in MOST in the future?

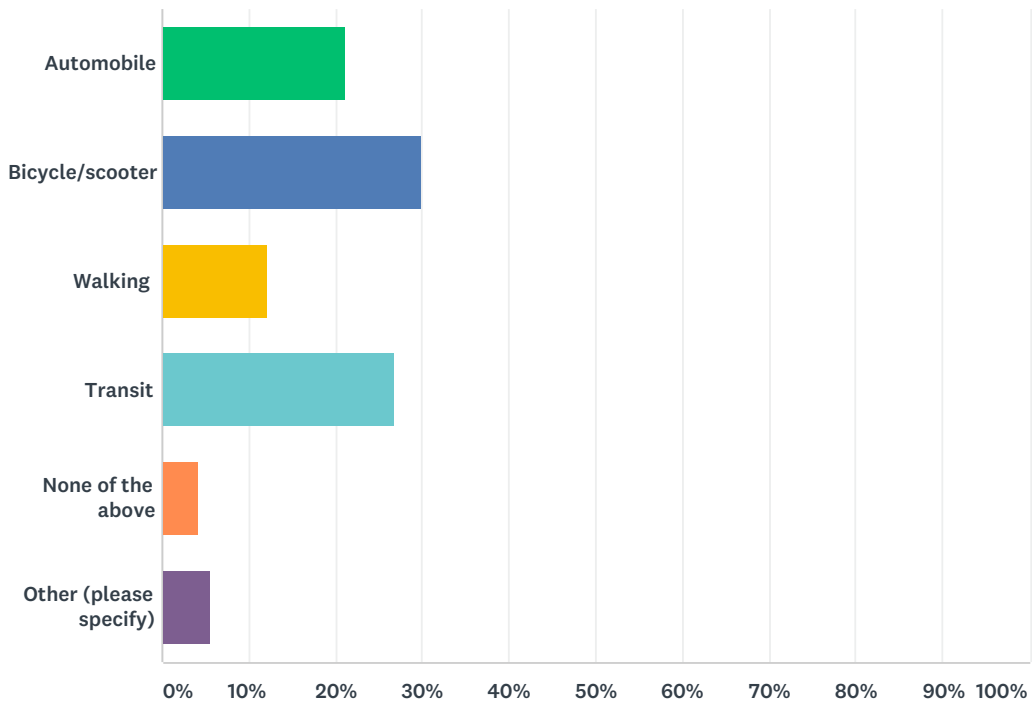
Answered: 936 Skipped: 139



ANSWER CHOICES	RESPONSES	
Automobile	35.26%	330
Bicycle/scooter	10.36%	97
Walking	2.35%	22
Transit	43.91%	411
None of the above	1.60%	15
Other (please specify)	6.52%	61
TOTAL		936

Q23 What mode of travel should the City invest in SECOND MOST in the future?

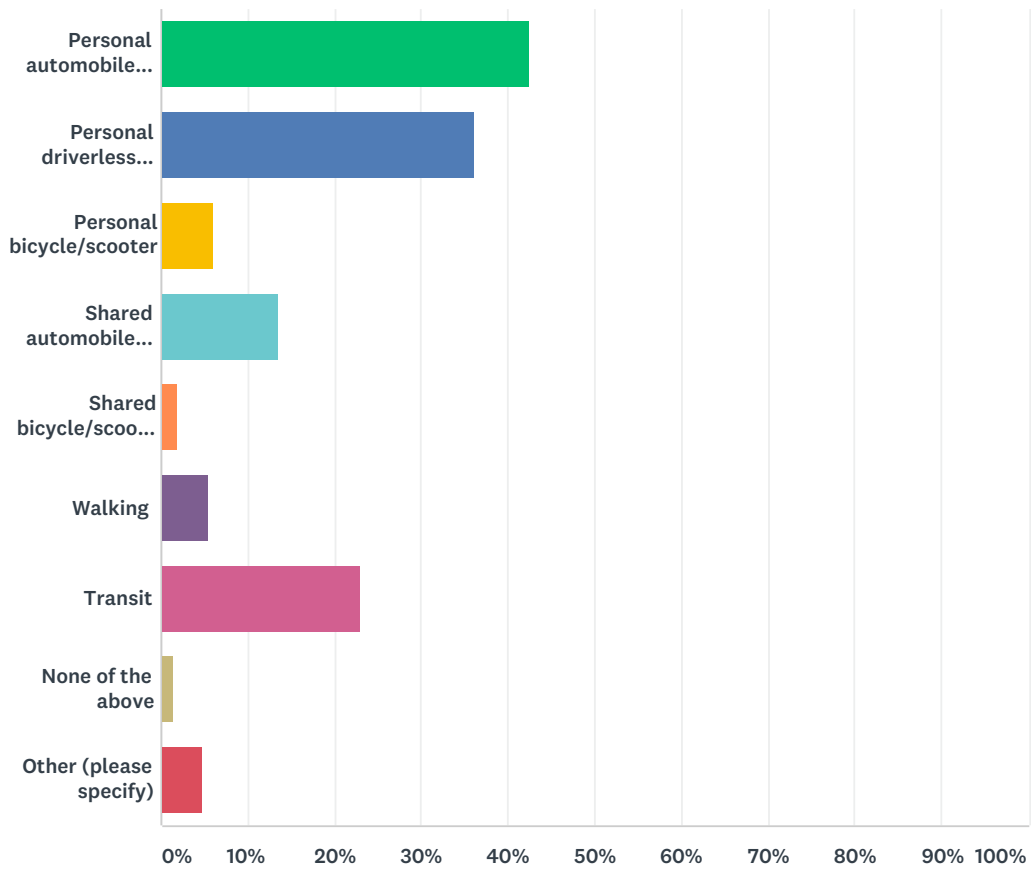
Answered: 927 Skipped: 148



ANSWER CHOICES	RESPONSES	
Automobile	21.14%	196
Bicycle/scooter	29.99%	278
Walking	12.19%	113
Transit	26.75%	248
None of the above	4.21%	39
Other (please specify)	5.72%	53
TOTAL		927

Q24 What do you think your primary mode of travel will be 20 years from now?

Answered: 945 Skipped: 130



ANSWER CHOICES	RESPONSES	
Personal automobile (traditional)	42.43%	401
Personal driverless automobile	36.30%	343
Personal bicycle/scooter	6.14%	58
Shared automobile (e.g., Uber, Lyft)	13.54%	128
Shared bicycle/scooter (e.g., Bird, Lime)	1.80%	17
Walking	5.40%	51
Transit	22.96%	217
None of the above	1.38%	13
Other (please specify)	4.76%	45
Total Respondents: 945		

Q25 Please provide your e-mail or physical address if you would like to be informed of upcoming events or opportunities related to the transportation master plan (optional).

Answered: 323 Skipped: 752

Q26 Please provide any other comments you may have related to Chandler's Transportation System. . .

Answered: 323 Skipped: 752



**City of Chandler Transportation Master Plan &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 January 23, 2019 5:30pm - 6:30 pm**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
Anthony Deard				✓
VERNON STEWART				✓
NI Leibowitz				✓
Rich Hummer				✓
MICHAEL A. POLLACK				✓
Brian Fox				✓
Dezbeh Hatathi.				✓
Susan Tierney				
Tom Henderson				
Ted Spector				
PATRICK CASTELLANO				✓
Renee Levin				✓

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**City of Chandler Transportation Master Plan &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 January 23, 2019 5:30pm - 6:30 pm**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
WILLIAM KALAF				
Deron Simmons				
Anthony Dymal				
Jerika Nickell				
Ben Schwatken				✓
Ken Brooks				
Kevin Hartka				
KEVIN RINGER				
Tom Escobedo				✓

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**City of Chandler Transportation Master Plan &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 January 28, 2019 3:00pm - 4:00 pm**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
Marie Shadden				yes
Kent Connole				y
Ryan Circello				yes
Aaron Harris				yes
John Regan				yes
Robert Kloos				yes
Anlin Ren (ANN)				
Jorge Rascon				
Tom (Carolyn) McGuire				
Connie Morrison				✓



**City of Chandler Transportation Master Plan &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 January 28, 2019 3:00pm - 4:00 pm**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
JOHN S. McNEES				
Lisa Keller #2				
Marc Silver				
Jim Fickess				✓
Brian Fox				✓
Mark Milstoke				✓
Yvonne Nail				✓
Rick Becker				

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City of Chandler Transportation Master Plan &
Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
OPEN HOUSE
January 28, 2019 3:00pm - 4:00 pm

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
Ben Schwatken				
Val and Lee Rhee				
Charles Herdsonburg				

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**City of Chandler Transportation Master Plan &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 January 30, 2019 6:30pm - 7:30 pm**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
Linda Ems				3 Yes
PRANNATH TIKU				YES
Linda Colon Thelin				Yes
PAUL ROSE				YES
BEVERLY & MARLIN FR				YES
CHRISTINE HALVORSON				Yes
PAUL HODGINS				YES
LISA LEON				
Robert V. Jeanne				YES
Cecilia E Ashe				Yes
Ann (Anlin Ren)				1
Mark Wholls				N

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**City of Chandler Transportation Master Plan &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 January 30, 2019 6:30pm - 7:30 pm**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
JOSÉ BENAVIDES				YES
Norma Futch				yes
Mrs MRS TROTTER				YES
Ardis + Don Lehr				
MIKE FLANDERS				YES
Charlene Reaux				
PAUL RAMIREZ				YES
Ben Schwatzen				
Derek Logan				Yes
Melanie Dykstra				yes
VICTOR PETERSON				YES
Heidi Starostedki				

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**City of Chandler Transportation Master Plan &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 January 30, 2019 6:30pm - 7:30 pm**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
Raymond Hauber, Paul				
Loretta G. Colson				
Bassam Hymiz				
STEVE DOMINSKI				
Annette Procknow				
Bob Procknow				
Ken Edmonds				x
Irene Dominski				

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**City of Chandler Transportation Master Plan &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 January 30, 2019 6:30pm - 7:30 pm**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
Mark Thompson				
Sara Scoville-Weaver				y
Danae Presler				y
Leonard Pennock				y
Judy Ramos				
Marcela & Eric Yanko				y
Erik Yingling				

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Chandler · Arizona



Keep Chandler Moving!

Mayor on the Move 5/14/19

Transportation Master Plan 2019 Update ~ Keep me updated!

	Address	E-Mail	Phone
Hope MAMROSS			
VERY STEWART			
Christine Hobelmann			
Rachel Nystrom			
Eshe Pickett			
Miriam Medina			



**City of Chandler Transportation Master Plan 2019 Update &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study**
OPEN HOUSE
Oct. 24, 2019 5-7 p.m.

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
Norma Fitch				✓
ROD TROTTER				✓
BILL KACAO				-
Angie Knox				
Debra Stappleton				
JOSH WRIGHT				
Ken Edmonds				✓
MICHAEL POLLACK				* (crossed out)
Salah Mekaram				
Erik Yingling				
Christiane Quintans				✓
Alan Pedersen-Giloy				

NOTICE: This document should be considered a public record subject to disclosure under the Arizona Public Records Law (A.R.S. 39-121).



**City of Chandler Transportation Master Plan 2019 Update &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 Oct. 24, 2019 5-7 p.m.**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
SEAN BURKE				
Scott Barnian				
Dylan Raymond				
Bobby Pollack				✓
Bart Tucker				
Brian Fox				
Karen Hudak				x
MAIT ORLANDO				
Mary Murphy-Bessler				
MICHAEL JUNE				

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**City of Chandler Transportation Master Plan 2019 Update &
 Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
 OPEN HOUSE
 Oct. 24, 2019 5-7 p.m.**

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
MIKE FLANDERS				Yes
CAROLYN URISH				YES
DEAN BRENNAN				YES
Kevin Reagan				Yes
Kevin Hartke				
ROY HARDIN				
DAVID RICE				Y
Jesse McDonald				no
JB Given				Yes

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City of Chandler Transportation Master Plan 2019 Update &
Valley Metro Arizona Avenue Alternatives Analysis (AAAA) Study
OPEN HOUSE
Oct. 24, 2019 5-7 p.m.

NAME	ADDRESS	EMAIL	PHONE	AAAA Study Updates?
JOAN SMENELIS				
John Owens				

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Chandler Transportation Master Plan 2019 Update

Summary of Public Comments Heard by Kimley-Horn at Round 1 Public Meetings

01/23/19 Meeting

Roadway

- 3 to 4 known recent accidents on Willis Avenue W of Dobson/S of Pecos.
- A couple of 3-way lights at Pennington Dr and Chandler Blvd and Ray Road have many problems.
- Need wider east and west travel lanes on Willis around Alma School and the new hospital.
- Near the Intel sight at Rural/Chandler people have been observed blowing through the red light late at night when it changes for the small amount of cross traffic.
- At Ray and Rural by Corona del Sol High School (in Tempe), child safety is a concern.
- Ponderosa (S of Chandler by Rural) is a neighborhood through street that many travel at high speeds to get through.
- The intersection of Pecos and Arizona is unsafe because it is a high congestion area and many people are distracted at the intersection.
- Northbound on Dobson from Ray Road there are several disappearing lanes where the through lane that goes through an intersection terminates just past the intersection. While it is recognized this was done to build out the intersection to its ultimate capacity and not have to go back in later to adjust the intersection, it is an unsafe and confusing way to construct lanes and if a through lane is built through an intersection, it should continue onto that mainline for quite some distance before terminating.
- Ray Road / Loop 101 intersection – there is no left turn allowed and yet left turns occur all the time at that intersection, creating an unsafe condition.
- If high-capacity transit is constructed on Arizona Avenue, it is going to increase volumes and reduce safety on Alma School Road, which is already pretty bad.
- Price Road south of 202 – there is a hook in the road that seems like it was a missed opportunity to realign or widen as drivers try to avoid a water drain in the middle of the road that creates hazardous conditions.
- Extend Old Price Road down to alleviate congestion and offer another route option for travelers in South Chandler and to/from I-10.

Bicycle/Pedestrian

- There is a hotel on the southeast corner of the 202/101 interchange. The nearest restaurant is across the freeway, so it is important that hotel guests have a safe walking route through the freeway interchange.
- Concerns with bike lanes:
 - o Districted drivers often swerve into the bike lane – they treat it like additional roadway
 - o Intersection safety is a concern related to bike lanes, especially with vehicles and buses who are turning right who do not look for or do not notice a biker that might be in the bike lane
- General interest in improving safety of bicycles at intersections.
- In the area around Chandler Blvd and McQueen, mid-block crossings would be nice because it is currently challenging for people to cross the street.

- Speeds on Chandler Blvd near McQueen are very high, even with the speed limit at 35 miles per hour (mph), which makes bicycling unsafe. A speed feedback sign is requested in this area to try and help with speeding issues.
- Pedestrian access would be greatly improved if commercial developments provided a 'backdoor' pedestrian access point into the shopping center that can be used by residential areas nearby. Currently, people in these areas have to walk to the main road to enter the shopping area, which is less safe and desirable.
- Lots of interest for bike lanes on Kyrene and McClintock (already programmed in the CIP for installation).
- Interest in extending the bike lane on Chandler Blvd all the way to I-10 (already programmed in the CIP for implementation).
- Price Road is particularly bad for bicycles – especially near Intel -would like to see more bicycle-friendly routes that allow folks to get to Intel.
- Need to better define what motorized modes can use the bike lane and the sidewalk.
 - o Suggestion was to have e-bikes ride in the bike lane, but scooters (Bird, Lime) use the sidewalk and not the bike lane.
- Scooters, in general, are a nuisance and not desired.
- Hunt Highway needs bike lanes for improved safety.
- City is providing a great amount of bike paths already.
- Ray Road west of Loop 101 needs bike lanes to improve safety.
- Freeway crossings are unsafe and hard to maneuver for bikes/peds.

Bicycle/Pedestrian Element Bicycle Comfort Level










Put a dot ● in box by bicycle comfort category that most applies to you

 <p>Strong and Fearless: ok riding on roads without bike lanes</p>	 <p>Enthusied and Confident: ok riding on roads if they have bike lanes</p>
 <p>Interested but Concerned: prefer separated bike paths/lanes with little or no interaction with vehicles</p>	 <p>No Way, No How: not interested in riding a bicycle on or near major roads</p>

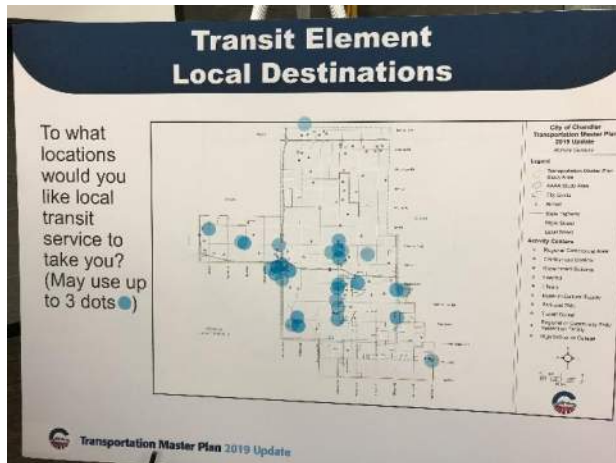
Transportation Master Plan 2019 Update
Kimley+Horn

Bicycle/Pedestrian Element Desired Amenities

What amenities would you like to see more of? (May use up to 3 dots ●)

 <p>Enhanced sidewalk: combination sidewalk and landscape/sitting area</p>	 <p>Signalized mid-block crossing: signal between roadway intersections</p>	 <p>Shared use biking/walking path: such as along canals</p>
 <p>Buffered sidewalk: landscape between roadway and sidewalk</p>	 <p>Pedestrian signal: flashing signal that stops traffic only when needed</p>	 <p>Shared bike/scooter: rentable bikes or scooters</p>
 <p>Bike lane: dedicated lane on side of roadway</p>	 <p>Separated bike lane: bike lane protected from roadway</p>	 <p>Rapid flashing beacon: warning lights flash as people are crossing</p>

Transportation Master Plan 2019 Update
Kimley+Horn



01/28/19 Meeting

Roadway

- Cooper and Queen Creek – people do not understand that the road ends and go too far straight before making the northbound left-turn and end up in the dirt.
- Lots of speeding on Riggs.
- There is an intersection about 3/8 of a mile east of Gilbert Road on Riggs (Mountain Blvd) into the Solera development that is too close to Gilbert Road for a signal – suggest no lefts out at this location.
- Use remote parking areas and public transit to get people off the road or encourage staggered work hours.
- Gilbert and Germann intersection is congested with lots of people and in the evening people just speed around.
- The charter school south of Queen Creek Road on Gilbert Road has police directing traffic during drop off and pick up, but it still causes a lot of problems.
- Safety issues between Gilbert and Lindsay on Chandler Heights – almost in an accident there and there is too much traffic.
- Downtown is very congested; going south turning into the restaurant Serrano's there is no left turn lane – you must block a lane of traffic to turn left into the site on the north side of the building.
- Between 3-7pm all east-west streets from Elliot to Chandler are bumper-to-bumper.
- Subdivisions should all have right-turn lanes into them from the major streets.
- Cooper and Pecos – a better and safer southbound left turn is needed.
- Chandler Blvd/Cooper area – lots of traffic coming north of 202. There is a waste station that is north of City limits on Cooper and garbage trucks use Cooper very early in the morning to get there and there is a lot of residential communities along Cooper. Perhaps have them travel up Arizona Avenue instead to reach the waste station? Speeds are also an issue along this stretch of Cooper. Could use a speed feedback sign or increased officer presence (has been used in the past) to reduce speeds. Speed limit is 45 mph currently, maybe is warranted to be 40 mph.
- Alma School/Pecos, McQueen/Queen Creek, and Arizona Avenue/Chandler Heights Rd are all always congested. Seems to be construction all of the time and all at once.
- A dropping of the right lanes just past intersections is confusing to traffic and causes safety issues.

- Solara community north access to main road causes accidents – perhaps a signal is warranted there even though it is close to the major-major intersection.
- Germann/Alma School – East-to-north movement needs more time in the morning; a tight turning radius because of a difficult median makes traffic veer in the second lane to make turn.
- Ocotillo east of Chandler Blvd is always congested.
- Announce at the Transportation Commission meetings that the TMP public meetings are coming up to encourage additional participation. Announcements could be made at the Planning and Zoning meeting as well as City Council.
- Lindsay, Chandler Heights, and Val Vista – all need wider roads, better lights, mid-block traffic signals to slow down traffic, and speed feedback signs.
- People dumping trash on County land in southeast Chandler (Ocotillo area).
- Alma School/Loop 202 has a large amount of traffic – need Lindsay Road traffic interchange and access to Loop 202 to happen sooner than later.
- To get traffic off of the roadways:
 - o Stagger start times for businesses so that there is not an AM and PM peak hour.
 - o Re-purpose lanes for autonomous buses and use bus pullouts as driverless car pick-up/drop-off.

Bicycle/Pedestrian

- The bike path on the maps on Queen Creek Road at Cooper does not exist
- There are no bike lanes near the intersection of Chandler Heights and Cooper – need traffic signals and bike lanes.
- Arizona Ave/Chandler – suggestions of changing the intersection crossings so that all pedestrian movements occur at the same time and people can go diagonally across; also, need to provide more crossing time.
- Issues with bicycles not staying in the bike lane – recreational riders often ride two or three bikes across, so they are also riding in the roadway.
- Dobson is a major bikeway.
- An issue with an enhanced sidewalk is that landscaping, signage, and light poles make a major vehicular thoroughfare too visually busy and reduce sight visibility. Vegetation gets overgrown too easily.
- It would be good to have more separated bike lanes in the downtown area to encourage people to bike, rather than drive, downtown and to provide bicycle connectivity to transit, which is prevalent in downtown – suggestions were on Chandler Blvd and Ray Rd.
- At the neighborhoods around Cooper and Queen Creek Rd, there are no sidewalks along Queen Creek near the airport; this is a key route to reach the canal and ultimately get to Tumbleweed Park.
- Would feel comfortable letting kids go to the canal/park alone if there was safe infrastructure to get to the canal, but do not feel safe having kids bike in the bike lanes.
- There is lots of congestion near the shopping mall at Germann and Loop 202, which makes it unsafe for bicycles.
- There should be more bicycle education programs, especially for recreational riders who tend to ride side-by-side.
- There are often big groups of bikers along Gilbert Road, especially those who are coming from downtown Gilbert; there are places in downtown Gilbert that set up bicycle cruises, which go to

different restaurants – when these are happening, there are a lot of bicyclers on the road at one time and not everyone is following the rules.

- Suggest having parkour/exercise stations along sidewalks (might also inhibit scooters from being able to ride on the sidewalk).
- Figure out how to provide more opportunities to bike to work.
- Need to have more separated paths – if there is a way to get more canal paths, maybe along the old rail line as well. Also need to provide more access points to the canals from existing neighborhoods (like an off-street path that connects to the canal).
- Suggest buffering bike lanes more.
- To get traffic off of the roadways, need to identify gathering points/open space on the outskirts of the City that could be easily accessed by transit, bicycles, or walking and that people would want to visit.
- Lindsay and Hunt Hwy – new developments have no sidewalks, bike lanes, etc. (2-lane road)
- Want a better connection to the canal around McQueen and Ocotillo intersection.
- May want to consider separating roads so that some are vehicle-dominant and some are bike-dominant. Cooper might be a good road to emphasize bicycles, while Gilbert Rd is for vehicles.
- Put rumble strips between the bike lane and travel lane so that 1) drivers swerving into the bike lane will hear it, and 2) bikes in the bike lane will know that a driver is over the line if they hear it.

Bicycle/Pedestrian Element Existing Bicycle Network

At what locations do you see gaps or issues with the bicycle network? (May use up to 3 dots ●)

City of Chandler
Transportation Master Plan
2019 Update

Legend:
 ● High Way
 ○ Park Lane
 ○ Commercial Highway
 ○ Major Arterial
 ○ Local Street
 ○ Residential Street
 ○ Transit Station
 ○ Transit Stop
 ○ Transit Lane
 ○ Transit Station
 ○ Transit Stop
 ○ Transit Lane

Transportation Master Plan 2019 Update
Kinley & Horn

Bicycle/Pedestrian Element Desired Amenities

What amenities would you like to see more of? (May use up to 3 dots ●)

 Enhanced sidewalk: combination sidewalk and landscape/sitting area	 Signalized mid-block crossing: signal between roadway intersections	 Shared use biking/walking path: such as along canals
 Buffered sidewalk: landscape between roadway and sidewalk	 Pedestrian signal: flashing signal that stops traffic only when needed	 Shared bike/scooter: rentable bikes or scooters
 Bike lane: dedicated lane on side of roadway	 Separated bike lane: bike lane protected from roadway	 Rapid flashing beacon: warning lights flash as people are crossing

Transportation Master Plan 2019 Update
Kinley & Horn

Bicycle/Pedestrian Element Bicycle Comfort Level

Put a dot ● in box by bicycle comfort category that most applies to you

 Strong and Fearless: ok riding on roads without bike lanes	 Enthusied and Confident: ok riding on roads if they have bike lanes
 Interested but Concerned: prefer separated bike paths/lanes with little or no interaction with vehicles	 No Way, No How: not interested in riding a bicycle on or near major roads

Transportation Master Plan 2019 Update
Kinley & Horn

Roadway Element Traffic Safety

At what locations do you have traffic safety concerns? (May use up to 3 dots ●)

City of Chandler
Transportation Master Plan
2019 Update

Legend:
 ● High Way
 ○ Park Lane
 ○ Commercial Highway
 ○ Major Arterial
 ○ Local Street
 ○ Residential Street
 ○ Transit Station
 ○ Transit Stop
 ○ Transit Lane

Transportation Master Plan 2019 Update
Kinley & Horn

Roadway Element Traffic Congestion

At what locations do you often see traffic congestion? (May use up to 3 dots ●)

City of Chandler
Transportation Master Plan
2019 Update

Kimley-Horn

Roadway Element Desired Road Improvements

At what locations do you think road improvements should be made first? (May use up to 3 dots ●)

City of Chandler
Transportation Master Plan
2019 Update

Kimley-Horn

Transit Element Local Destinations

To what locations would you like local transit service to take you? (May use up to 3 dots ●)

City of Chandler
Transportation Master Plan
2019 Update

Kimley-Horn

Transit Element Regional Destinations

To what locations would you like regional transit service to take you? (May use up to 3 dots ●)

City of Chandler
Transportation Master Plan
2019 Update

Kimley-Horn

Transit Element Desired Transit Services

What transit services would you most use? (May use up to 3 dots ●)

<p>Commuter rail: train connecting employment centers to outer areas</p>	<p>Local bus: dedicated routes within and between cities</p>	<p>Vanpool/carpool: ride-sharing using private vehicles</p>
<p>Light rail/streetcar: train traveling on roads through region</p>	<p>Circulator: shuttle bus with fixed routes and schedules in localized area</p>	<p>Shared microtransit/ car taxi: ride-matching using private vehicles</p>
<p>Express bus: regional connector with few stops</p>	<p>Bus rapid transit: operates in separate lane from cars</p>	<p>ASU express: shuttle to ASU campus</p>

City of Chandler
Transportation Master Plan
2019 Update

Kimley-Horn

01/30/19 Meeting

Roadway

- Going from 3 down to 1 lane right after an intersection is not safe, there is not enough time to merge.
- There are not enough right-turn lanes (though mentioned this was a comment more for Gilbert than Chandler).

- Going north on Dobson at Ray traffic is very congested. The intersection needs a northbound right turn lane and does not have one. Because of the congestion many people have been seen going through the adjacent parking lot to avoid the light and make a right onto Ray Rd.
- The Alma School Loop 202 on-ramp has people that try to squeeze into the lanes last minute.
- There is construction for intersection improvements at McClintock and Ray to be aware of.
- Making an eastbound left from Ryan Road to Arizona Avenue is very difficult.
- Dislike that Arizona Avenue was decreased from 6 to 4 lanes to accommodate street parking. There is plenty of parking in the area and that was unnecessary and added to congestion.
- Want fewer and narrower lanes everywhere.
- At Rural and Ray there are a lot of accidents.
- Hunt Hwy between Cooper and Arizona is very dangerous, at McQueen especially there are lots of accidents.
- The Arizona Avenue/Hunt Hwy/SR 87 double intersection is very confusing as two back-to-back intersections; people do not understand how to make the left turns and cut others off. Better signage was recommended at the intersections.
- People are always speeding on Arizona Avenue.
- Don't build out Cooper before Chandler Heights.
- Mall area on Chandler Blvd from McClintock to Dobson has horrible congestion.
- Price Road curve south of Loop 202 is dangerous and has no line of sight to view oncoming traffic – poorly designed/constructed.
- Need to optimize the signal timing in the mall area on Chandler Blvd.
- Maybe add a lane between McClintock and Dobson on Chandler Blvd.
- Costco creates so many issues including the need to U-turn to get back to Loop 202 – need separate access into Costco.
- Warner Road has a better flow than Ray Road even though it is a smaller roadway.
- Ray/Loop 101 interchange does not function well and is always congested.
- Freeway restaurant signs heading southbound north of Ray Road let people know to get off at Ray to reach the restaurants on Chandler Blvd – this probably creates a lot of the problems on Ray/Loop 101 that aren't necessary.
- Arizona/Ray needs red-light running cameras because people speed through and run red lights at that intersection all of the time.
- Finishing the airport runway extension to 6900 feet will help bring additional commercial traffic to airport to beef up economy for City.
- McQueen/Queen Creek intersection, southeast corner, there is a warehouse that is planning to go in that will cause major truck traffic to occur at all times of the day and disrupt traffic flow and neighborhood community in area. Potentially need to look at zoning in this area.
- Dobson northbound to Ray there is no right-turn lane and there needs to be one. Bad congestion in afternoon.
- Loop 202 toward Alma School and to the east is bad congestion – ADOT congestion issue although better functioning ramps accessing onto City roadways may be able to alleviate some of this congestion.
- Arizona Avenue southbound approaching Chandler Heights there is a school on the west side that has ingress/drop off traffic that always backs up onto Arizona Avenue.
- Arizona Avenue and downtown area has incredibly unsafe pedestrian crossings. Many occurrences of people getting hit or nearly hit while crossing Arizona Avenue in the legal illuminated crosswalks.
- Could use some dedicated left turns around the mall area like Las Vegas or Salt Lake City has.
- Road diet concept and complete streets concept is desired in more areas.

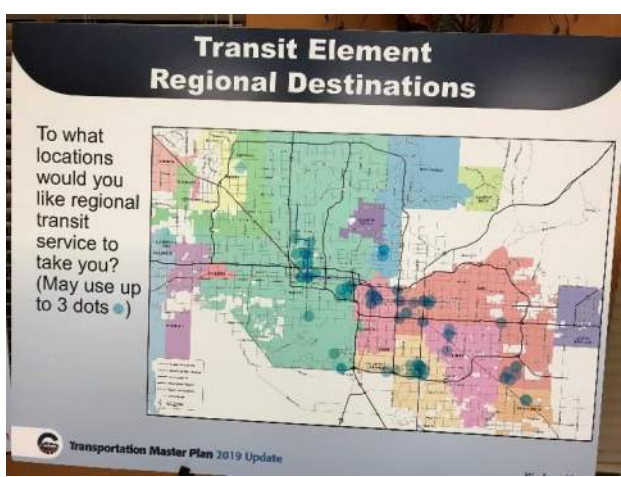
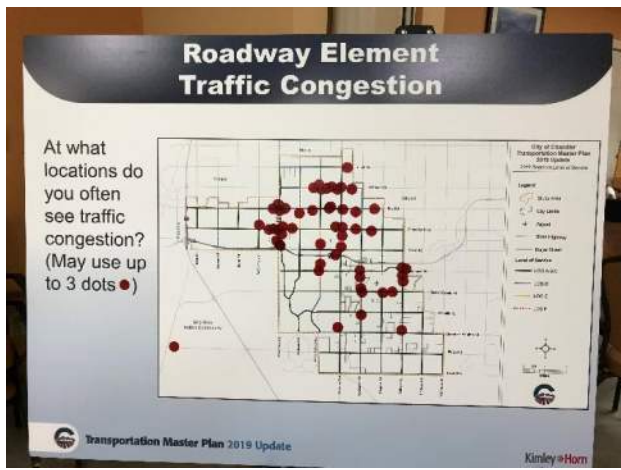
- More art and uniqueness to corridors to make them district-style like Mesa or Tempe. Too much of the same design and same configuration everywhere.
- Lane drops after intersections cause backups into intersections.
- Diverging diamond interchanges were recommended at Ray/I-10 and Ray/Loop 101.

Transit

- Really wants to see an extension of Valley Metro to at least Queen Creek, maybe Riggs to capture the elderly communities that live that far south.

Bicycle/Pedestrian

- Separated bike lanes just seem safer.
- Need for driver education on sharing the road, districted driving.
- Likes separated bike lanes, but they take up too much space in the roadway.
- Do not like scooters.
- A critical gap in the bike lane network is along Ray Rd between Dobson and Alma School (comment provided by 4 different people).
- Need to have a safer bicycle connection between Downtown and the canal at Cooper Rd – riding down Chandler Blvd is way too dangerous (speeds, volumes).
- Biggest concern is people who are texting and end up rear-ending bicyclists who are in the road.
- Big fan of the existing facilities along the canal – they provide good connectivity around the City.
- Need to make sure that there are enough bike racks in areas that people want to bike – Mall, downtown, parks, shopping centers with popular restaurants, all bus stops.
- Especially in areas where it is hard to find vehicle parking, a good set of safe bike racks that are easy to find could be helpful and might encourage people not to drive into those areas and bike instead.
- Need to make sure that all parks are connected by a safe bicycle facility.
- Where Ryan Road crosses over the railroad tracks – not currently a sanctioned crossing but should be.
- City should have more safe routes to school programs – including safe routes to schools and safe routes to parks.
 - o Current crossings around schools are not safe for children and people drive too fast; need crossings at bus stop locations as well.
 - o A neighborhood (Cooper Commons) bought and installed some permanent signage around Hull Elementary (they said that they got a permit from the City to do so) that said something like “Slow Down, School Zone”, but the City removed the signs (even though they were paid for by the neighborhood).
- The City is the only one of its size and peer group that does not have a recognized Complete Streets program.
- There should be protected bike lanes along the entire length of Arizona Ave and Chandler Blvd to support safe bicycle movement along these key arterials.
- Biggest issue in the City is where bike lanes just go away – the current bike lanes in the City are really good, but when there are gaps, it becomes dangerous because vehicles immediately take over the whole road, even if there is still a bicyclist riding there.



Chandler Transportation Master Plan 2019 Update

Summary of Public Responses by AECOM at Round 1 Public Meetings

Summary

A. Regional Destinations

1. Downtown Phoenix
2. Arizona State University, Tempe Campus/Downtown Tempe
3. Phoenix Sky Harbor International Airport
4. Arizona State University, Polytechnic Campus
5. Phoenix-Mesa Gateway Airport

B. Local Destinations

1. Downtown Chandler
2. Chandler Fashion Center
3. Fulton Ranch Towne Center
4. Employment Corridor (Along Price Road and US 60)
5. Intel Ocotillo Campus

C. Desired Transit Services

Transit Mode	Total Votes	Transit Mode	Total Votes	Transit Mode	Total Votes
Commuter Rail	28	Local Bus	14	Vanpool/Carpool	6
Light Rail/Streetcar	45	Circulator	34	Shared Microtransit/car/taxi	33
Express Bus	17	Bus Rapid Transit	21	ASU Express	8

The highlighted transit modes are the most preferable

01/23/19 Public Meeting

A. Regional Destinations

Chandler residents would like regional transit service to take them to the following regional destinations:

1. Employment Corridor along Kyrene Road between Broadway Road and Warner Road
2. Arizona State University, Tempe Campus
3. Downtown Phoenix
4. Encanto Village, Phoenix
5. Phoenix Sky Harbor International Airport
6. Gilbert Public School, around Elliot Road and Gilbert Road intersection
7. Arizona State University, Polytechnic Campus
8. Phoenix-Mesa Gateway Airport
9. Downtown Scottsdale
10. Paradise Valley

11. Chandler Municipal Airport
12. Intel Ocotillo Campus

B. Local Destinations

Chandler residents would like local transit service to take them to the following local destinations:

1. South of Loop 101 and Loop 202 Interchange
2. Downtown Chandler
3. Intel Ocotillo Campus
4. Intel Chandler Campus
5. Chandler Fashion Center
6. Fulton Ranch Towne Center
7. Crossroads Towne Center
8. Ahwatukee Foothills Towne Center
9. Chandler Municipal Airport
10. Chandler Unified School District (Basha)

C. Desired Transit Services

Transit Mode	Votes	Transit Mode	Votes	Transit Mode	Votes
Commuter Rail	14	Local Bus	2	Vanpool/Carpool	1
Light Rail/Streetcar	10	Circulator	8	Shared Microtransit/car/taxi	9
Express Bus	2	Bus Rapid Transit	8	ASU Express	3

The highlighted transit modes are the most preferable

01/28/19 Public Meeting

A. Regional Destinations

Chandler residents would like regional transit service to take them to the following regional destinations:

1. Downtown Phoenix
2. Phoenix Sky Harbor International Airport
3. Arizona State University, Tempe Campus
4. Gilbert Town Square
5. Crossroads Towne Center
6. Arizona State University, Polytechnic Campus
7. Phoenix-Mesa Gateway Airport
8. Light Rail Station, Main Street and Gilbert Road
9. Downtown Scottsdale
10. Encanto Village, Phoenix

B. Local Destinations

Chandler residents would like local transit service to take them to the following local destinations:

1. Chandler Fashion Center
2. Downtown Chandler
3. Employment Corridor (Along US 60)
4. Veterans Oasis Park
5. Tumbleweed Park
6. Fulton Ranch Towne Center
7. Springfield Marketplace
8. Chandler Gilbert Community College
9. Stellar Airpark
10. Ahwatukee Foothills Towne Center
11. Shopping Center at Chandler Boulevard and Dobson Road

C. Desired Transit Services

Transit Mode	Votes	Transit Mode	Votes	Transit Mode	Votes
Commuter Rail	5	Local Bus	4	Vanpool/Carpool	1
Light Rail/Streetcar	9	Circulator	14	Shared Microtransit/car/taxi	11
Express Bus	7	Bus Rapid Transit	3	ASU Express	3

The highlighted transit modes are the most preferable

01/30/19 Public Meeting

A. Regional Destinations

Chandler residents would like regional transit service to take them to the following regional destinations:

12. Phoenix Sky Harbor International Airport
13. Arizona State University, Tempe Campus
14. Downtown Phoenix
15. Along Central Avenue, between I-10 and Camelback Road
16. Phoenix-Mesa Gateway Airport
17. Arizona State University, Polytechnic Campus
18. Downtown Mesa
19. Loop 202 and Loop 101 Interchange
20. Gilbert Town Square
21. Downtown Scottsdale

B. Local Destinations

Chandler residents would like local transit service to take them to the following local destinations:

1. Downtown Chandler
2. Chandler Fashion Center
3. North of Loop 101 and Loop 202 Interchange
4. Fulton Ranch Towne Center

5. Intel Ocotillo Campus
6. Chandler Regional Medical Center
7. Chandler Gilbert Community College
8. Snedigar Recreation Center
9. Hamilton High School
10. Stellar Airpark

C. Desired Transit Services

Transit Mode	Votes	Transit Mode	Votes	Transit Mode	Votes
Commuter Rail	9	Local Bus	8	Vanpool/Carpool	4
Light Rail/Streetcar	26	Circulator	12	Shared Microtransit/car/taxi	13
Express Bus	8	Bus Rapid Transit	10	ASU Express	2

The highlighted transit modes are the most preferable



Keep Chandler Moving!

Transportation Master Plan 2019 Update

Public Meeting

**Desert Breeze Police Substation (Community Room), 251 N. Desert Breeze Blvd
Wednesday, January 23, 2019 ~ 5:30 pm**

Approximately 21 participants signed in at the meeting and were invited to fill out comment cards to provide additional information to the project team. Seven comment cards were received with comments. The following summarizes the comment cards received:

Automobile Travel	Bicycle/Pedestrian Travel	Travel by Transit	Valley Metro Arizona Ave Alternative Analysis
What are your plans for autonomous vehicle travel in the future?	More people would ride if they felt safer on the streets. More education about how to ride safe.		
EB 202 exit at Alma School- low sight distance for right turn- consider no turn on red			
	Safe bike/walk lanes from South 202 to North of 202 around highway areas.	Travel options other than cars for the Price corridor. A lot of foreign travelers that do not have a means of transport.	Transport from the Price Rd corridor to neighbor areas i.e. DT Chandler, Fashion Mall, etc.
Chandler Blvd at business entrance just west of Intel Way... employees using business road to access parking garage tend to create traffic at start/end of workday.	Separated bike lanes needed due to distracted drivers. Quite a few drivers drift into current bike lanes.		
Would like to see better traffic management at Gilbert and Germann since employer is by there.	Want to see more protected bike lanes.	It would be great to see commuter rail come to fruition with station in Chandler that connects with Valley Metro Arizona Ave project.	Would prefer bus rapid transit for mode of transit. Separate lane would be best since it can be used as stepping stone for light rail if needed. I want to see extension east from Tumbleweed Park to Gilbert/Germann since major employment center is there.

Automobile Travel	Bicycle/Pedestrian Travel	Travel by Transit	Valley Metro Arizona Ave Alternative Analysis
<ul style="list-style-type: none"> • More roundabouts • More dedicated left-hand turning lanes • More pass-thru lanes 	<ul style="list-style-type: none"> • Expand bike lanes to include motorized ride-share scooters • Educate traditional seated scooter riders on proper sidewalk usage. 	<ul style="list-style-type: none"> • One universal pass for all transit options. One monthly pass that can be used on any transit option (bus, call, shared, etc.) • Include autonomous vehicles as ride option 	<ul style="list-style-type: none"> • Would like to see autonomous vehicle partnership expand • Free downtown Chandler transit. See Denver, CO
<p>More enforcement and education of drivers</p>	<p>Very dangerous now. Bike lanes too close to automobile traffic</p>	<p>Would like to see shuttle buses like Tempe.</p>	



Keep Chandler Moving!

Transportation Master Plan 2019 Update

Public Meeting

**Chandler Environmental Education Center (Painted Desert Room), 4050 E. Chandler Heights Rd
Monday, January 28, 2019 ~ 3 pm**

Approximately 23 participants signed in at the meeting and were invited to fill out comment cards to provide additional information to the project team. Four comment cards were received with comments. The following summarizes the comment cards received:

Automobile Travel	Bicycle/Pedestrian Travel	Travel by Transit	Valley Metro Arizona Ave Alternative Analysis
Good	Bad on Queen Creek from McQueen to Cooper	Need express bus from park and ride to courthouse in Phx at 7 th Ave and Jefferson	
Cooper Road -N. of Chandler Blvd- increase traffic /noise/ pollution keeping us up at night. NEED ear plugs/noise machines. Loud (4-5am) truck traffic generated by Weinberger transfer station in Gilbert. Loud, trumpet exhausts. Divert truck traffic to AZ Ave (state highway). Ban trumpet mufflers in Chandler. Put speed vigation (?) sign on northbound Cooper N. of Chandler Blvd. Lower speed limit 5 mph to 40.			
Funding for high traffic areas to widen and add lanes i.e. Alma & Germann		Price Road Corridor – No public trans for 1k's [thousands] of new jobs?	[Arrow indicating the comment in "Travel by Transit" comment]
Traffic signals where developments are located for easier access to roadway	Traffic lights for crossing streets good ex. Pecos W. of Cooper. Need at Cooper S. of Chandler Blvd. and Chandler Blvd. E. of Cooper.	What is difference between street car and light rail, other than traffic lanes used. Will the streetcars use the same transit centers with light rail put out for buses to pull into while loading & unloading.	



Keep Chandler Moving!

Transportation Master Plan 2019 Update

Public Meeting

**Chandler Senior Center (Multi-Purpose Room), 202 E. Boston Street
Wednesday, January 30, 2019 ~ 6:30 pm**

Approximately 43 participants signed in at the meeting and were invited to fill out comment cards to provide additional information to the project team. Thirteen comment cards were received with comments. The following summarizes the comment cards received:

Automobile Travel	Bicycle/Pedestrian Travel	Travel by Transit	Valley Metro Arizona Ave Alternative Analysis
Less cars! AZ Ave is 7 lanes wide! That's crazy- smaller width streets. Enhanced corners and streetscapes please!	Big thumbs up! Please- we need more separated bike lanes and "Hawk" crosswalks.	<3 Light rail! Build down 60 to AZ Ave & 60 Park & Ride at the very least. All the way down AZ Avenue to downtown Chandler is ideal.	Please enhance bike lanes, streetscapes, shade corridors and light rail down AZ Avenue. I commute from Chandler everyday using car & light rail to downtown Phx.
Chandler roadways are well-maintained! Thank you!!!	To increase bicycle ridership, need to promote safety through protected bike lanes, with physical barrier between roadway and bike lane. Trees for shade would also help.	Biggest improvement opportunities would be building/connecting Chandler mass transit to Phoenix Sky Harbor & Mesa Gateway Airports, would also love to see mass transit across Chandler & N/S on Arizona Ave E/W on Chandler Blvd	General Let's talk autonomous vehicles! Where do we go from here?
Smart technology to traffic signals for better adaption to traffic congestion & events that cause congestion.	None	Extend Express bus hours to beyond 5/6pm. Commuters with 4/10 schedule have no time to commute by transit CAS service ends at 5pm and are stuck downtown Phx.	Commuter rail only no light rail.
I like our large roadways with high speed limits.	I'd like to see all Chandler parks connected via bike paths.	I like buses and private car transport... ie UBER etc.	I'm very much against a light rail system. Buses are a lot more flexible and cheaper to maintain.
	Safer routes for both especially in high traffic areas. Bicyclists seem to not have enough safety areas or visibility in these areas.	Make rates more affordable across the board especially for seniors and students. Maybe providing discount passes or seasonal passes/tickets/booklets	

Automobile Travel	Bicycle/Pedestrian Travel	Travel by Transit	Valley Metro Arizona Ave Alternative Analysis
<p>Raise taxes on gasoline for private use. Use taxes to build pedestrian & bicycle travel routes. Keep fuel tax for businesses (dissel) low to keep consumer goods lower cost. We need a heart change away from cars ☹️</p>	<p>I believe pedestrians travel is the most valuable form of transportation because it is the only form that helps our populations physical health, and can be afforded by the most people.</p>	<p>Microtransit (via UBER & Lyft) is the future. Tax it carefully.</p>	<p>This format for public opinion is wonderful! Thanks for providing this opportunity for the public to voice opinion.</p>
<p>There should be more facilities provided to "Seniors" who desire to come to Senior Center or visit doctors often. The Valley Bus which terminates at Queen Creek should extend up to Riggs.</p>	<p>There are enough bicycle tracks in the city. Expansion would increase the stream on ? roads.</p>	<p>There is not transit as yet. It would be highly recommended to extend transit % Chandler in the coming years.</p>	<p>This is a good program and should be extended for more hours and seniors should get preference.</p>
<p>I really like the street widening projects. They make the road feel safer. My key concern is along Ray between AZ Ave & Dobson Rd.</p>	<p>My top concern is safety. The bicycle lanes as they are feel unsafe</p>	<p>It would be nice to have continual access via public transit to the light rail stop in Mesa & the Phoenix airport.</p>	<p>We need more convenient transportation for Seniors</p>
<p>Kyrene (South of Ray to 202) Need of resurfacing. Tempe did a nice job on Warner (North end of Warner Ranch) between Kyrene & Rural. Rural Road in Chandler needs resurfacing.</p>	<p>Provide stop lights, not flashing at areas between regular stop lights. Canal paths that intersect streets.</p>		
		<p>No Trolley Car! (so called "Light Rail")</p> <ul style="list-style-type: none"> • Hurt Mesa & Tempe • Congestion • Doesn't serve the majority of Chandler residents • Who profits from this? • Who does this serve? • Use existing busses! • Don't make citizens pay for boon doggle! 	
			<p>Invest in a study of what would be a motivation to get out of our cars and into public trans. Convenience is a big factor.</p>

Automobile Travel	Bicycle/Pedestrian Travel	Travel by Transit	Valley Metro Arizona Ave Alternative Analysis
			<p>It is a source of pride to me, to see the new generation of Waymo cars being tested in Chandler. It is cutting edge technology and this is the future. Light rail is the past, 19th century technology dressed up. Residents of Chandler have approved various overrides for both local government and for our school systems. Any hint of extending light rail into Chandler will meet strong opposition from me and many residents. If light rail was valid and useful people would be willing to contribute from their own tax base. It is usually sold by saying someone else is paying for it. Funding by someone else does not turn a bad investment into a good one. I had a chance to talk with a commander in the Mesa police department who commented on the increase in crime as a result of light rail extension.</p> <p>I also met Schott Smith at a roundtable meeting in Mesa. As part of his defense of the costs he stated simply "All Public Transportations Systems Lose Money," I don't doubt its true, but that is not an arguments to do something, It is a good argument not to do something. – Don Lehr, Chandler Resident</p>
	<p>All buses should have space for at least 3 bicycles!!!</p>	<p>112- South to Riggs Rd 112- Every 20 min. Late eve 112- Every 20 min. Sat & Sun 104- Into Chandler on Saturday 104- At least 1 hr later at night into Chandlr 156- Need to run an hour or 2 later on Sunday eve (continued . . .)</p>	

Automobile Travel	Bicycle/Pedestrian Travel	Travel by Transit	Valley Metro Arizona Ave Alternative Analysis
		<p>Baseline Rd bus should run all the way to Power Rd</p> <p>72- Needs to come into Chandler at least 1 hr later at night maybe even 2 hrs</p> <p>72- Needs to run into Chandler later on Sundays (last stop at Chandler Fashion Center is 6:49 it should be 7:49 or even 8:49 or later</p> <p>96- Needs to run south of Baseline on Sundays</p> <p>56- Should run south all the way to Chandler Blvd so people can make the connection between the 56 & 156</p> <p>I find it very sad that late nite when the 72 stops at Ray & Rural that the bus continues on to Chandler Blvd. but cannot take passengers. Valley Metro is paying the driver paying for fuel paying for wear & tear on the bus but oh!! No!! We will not take passengers. To me that just doesn't make any sense. If your driving there haul the passengers. Your name says "Valley Metro"!!! Not Each City Metro! So if your going there anyway let the passengers ride.</p> <p>The lite rail needs to have more time added to the route both east and west. Many times west bound is already 2-4 min late by the time it gets to Main & Country Club. That's only 2-2.5 miles and the lite rail is already late. Just yesterday (1/29/19) it was 5 min late when it arrived at Priest & Wash. I had gotten on the 2:24 at Main & Country Club. So how lare was it by the time is arrived at the far west end.</p> <p>The lite rail is late over 50% Of the time that I ride it both east & west.</p>	



Keep Chandler Moving! Transportation Master Plan 2019 Update Comment Card Recap

Stakeholder Workshop - Thursday, October 17, 2019 & Public Meeting - Thursday, October 24, 2019

Thirty-three participants signed in at the public meeting and were invited to fill out comment cards to provide additional information to the project team. Four comment cards were received with comments from the public meeting and one comment card was received from the stakeholder workshop. The following summarizes the comment cards received:

Automobile Travel	Bicycle/Pedestrian Travel	Transit Travel	Transportation Technology	Contact Information
<ul style="list-style-type: none"> • Continued investment in Loop 101 & S. bound 202 projects, while ensuring Chandler does not become a donor city simply for not extending light rail into the city. • Exit/entrance ramps added to highways where needed. • Left turn signals put in proactively rather than reactively. 	<ul style="list-style-type: none"> • Preferred investment in expanding reach and destinations of shared use paths. • Adding bike lanes as standard proactive when widening roads. 	<p>We would like to see more high-speed mass transit over long distances moving workers to industry hubs, not light rail- i.e. commuter rail, node travel, shared micro transit.</p>	<ul style="list-style-type: none"> • The continued investment and promotion of AV technology and node travel models. • Forward planning and adaptive infrastructure able to change rapidly with tech advances. • Funding models as money decreases from taxes & fees. 	<p>Stakeholder Workshop Comment Card Brian Fox</p>
	<p>Need more bike lanes and/or continuations of existing bike lanes across central/north Chandler (Alma School, Warner, McQueen, etc). Ryan bike route crossing @ AZ Ave needs a signal similar to the signals used on the Paseo path.</p>			<p>Public Meeting Comment Card Scott Barvian</p>
<p>I hope to see a reduction in unprotected left turns. As traffic volume increases around Chandler, left turns have become challenging. I would like to see more raised medians and left turns that are controlled. Traffic flows at a high speed on Chandler arterials. Although, the speed limits are 45mph. I like what Scottsdale has done on Shea Blvd. With the implementation of "pork chop" medians.</p>	<p>I hope to see additional road features approaching bike and pedestrian crossings. Rumble strips and flashing lights to alert drivers approaching these intersections would greatly increase safety.</p>			<p>Public Meeting Comment Card Saleh Meharam</p>

Automobile Travel	Bicycle/Pedestrian Travel	Transit Travel	Transportation Technology	Contact Information
Street plan good, need \$	Needed - bike safety	\$\$\$	Good- continue to check need	<p>Public Meeting Comment Card John McNelis</p>
	<ul style="list-style-type: none"> • Check pedestrian timing at Dobson/Chandler. There is barely enough time to cross street. • Please get rid of double right turn lane on W.B. Warner at 101 & continue bike lane (going westbound is dangerous on bike). • Put pedestrian exclusive timing on 3-way intersections (ex. Dobson/Ocotillo) 			<p>Public Meeting Comment Card David Rice</p>
	<ul style="list-style-type: none"> • Please build the 101/Calle Del Norte pedestrian bridge ASAP. Please make the deck of that bridge as low as possible so a user needs to climb the minimum amount to cross the freeway. • Please create a pedestrian/bike connection between N Asper Dr (in Chandler) with S Fairfield Dr (in Tempe). • Run the 96 bus later into the evening down to Snedigar Sports Complex. • Please put a pedestrian only phase at busy 3-way and "3 1/2" way intersections, because when there is a large percentage of turning vehicles, the drivers don't yield to pedestrians on green lights and flashing yellow. (example Southbound Dobson to Westbound Ocotillo) • Put a multi-use path along the Old Price Road alignment south of 202 instead of directly adjacent to new Price Rd. (it would be much more pleasant for users) • Put a pedestrian signal at the Kyrene Canal crossing of Kyrene Rd. 			<p>Comments received via web David Rice</p>

Automobile Travel	Bicycle/Pedestrian Travel	Transit Travel	Transportation Technology	Contact Information
		<p>I attended the meeting briefly because I had another nearby event to attend that evening in Downtown Chandler with colleagues. For the transit element, a commuter rail from Downtown Chandler to Downtown Tempe and Phoenix would be great to use. I'm a commuter from Chandler to Downtown Phoenix and a local streetcar line from Downtown Chandler to Chandler Fashion Center/Price Rd Corridor would be nice, the distance between these two areas is 3 miles which is a preferred transit option for a streetcar and could help with congestion and parking issues during local big events that happen in each area.</p>		<p>Comments received via web Mark T</p>
<p>I checked the draft plan. Looks real good! I especially like the plan to improve access to the park and ride, plus the plan to add paved bicycle/pedestrian routes along the railroad spur.</p> <p>For one of my neighborhood concerns, I hope the newly placed school bus parking on Ocotillo does not drive a desire to put a traffic light by them in place of the long-term plan to add one at Ocotillo and Pinelake Way. Now that both a high-density condo and medium-density single residence projects are underway at the southwest and southeast corners of Ocotillo & Pinelake Way, I am concerned traffic exiting in the morning will be extremely delayed - since most make a left turn onto Ocotillo. Any chance the city can consider adding a traffic light there prior to businesses being added to the north? Also, any chance we can get an assurance that the school bus facility</p>				<p>Comments received via web Derek Logan</p>

Automobile Travel	Bicycle/Pedestrian Travel	Transit Travel	Transportation Technology	Contact Information
<p>won't get a traffic light which could reduce or eliminate the chance we would eventually get one? The school bus facility could possibly get a way to remotely signal a need for a traffic light change to both the light at Pinelake Way and the pedestrian crossing thereby giving them a break in traffic from both sides if they need one for the few times per day they might need it.</p>				
<p>See Attached</p>	<p>See Attached</p>	<p>See Attached</p>	<p>See Attached</p>	<p>Comments received via web *See attached* Dean Brennan</p>
<p>See Attached</p>	<p>See Attached</p>	<p>See Attached</p>	<p>See Attached</p>	<p>Comments received via web *See attached* Christiane Quintans</p>
<p>See Attached</p>	<p>See Attached</p>	<p>See Attached</p>	<p>See Attached</p>	<p>Comments received via City *See attached* Donald Levine</p>

Comments from Dean Brennan:

KEEP CHANDLER MOVING

TRANSPORTATION MASTER PLAN 2019 – PUBLIC MEETING FEEDBACK – October 24, 2019

AUTOMOBILE TRAVEL

Specific Concerns regarding the long-term proposal to widen Elliot, Warner and Ray Roads from 4 lanes to 6 lanes. I will speak specifically to Elliot Rd. because I live closest to that arterial, but my comments are applicable to Warner and Ray Roads.

1. Current Conditions for Pedestrians/Bicyclists – Note comments in the Bicycle/Pedestrian Travel Section
2. Climate Change – Clearly, the existing ambient air temperatures combined with the higher surface temperatures because of the added heat absorbed by the dark color of asphalt results in street surfaces having a higher temperature than adjacent surfaces. This contributes to an uncomfortable environment making it less desirable for pedestrians and bicyclists.

Neighborhood Impacts

Current Conditions – Based on my experience and observations, the east/west arterial streets in north Chandler experience is, as expected, maximum traffic volumes during the morning and evening rush hours. Traveling during those time either east to the intersection of Elliot & Arizona Avenue or west to the intersection of Elliot and Alma School, my typical wait time at those intersections is one traffic signal cycle. During those peak periods, the speeds on Elliot are not impacted 45-55+ until approaching the intersections.

Not being a transportation engineer/planner, my guess is that during peak rush hour periods the Level of Service on Elliot is probably LOS B or LOS C. During non-peak periods, it is probably LOS A. Although I understand that the recommendation for widening Elliot, Warner & Ray Roads is based on MAG projections, I question the validity of those projections. Projected Future Land Uses – In reviewing the MAG land use maps, land uses in Chandler remain basically the same as the land uses exist today. Except for a few parcels that remain undeveloped, north Chandler is built. Recognizing that a portion of the Elliot Road traffic is generated in Gilbert, I reviewed the Town of Gilbert land uses that exist today and future land uses as depicted by MAG.

Much of the residential land in Gilbert east of the Chandler corporate limit is buildout. There is some land at the intersection of Elliot & McQueen available for employment uses. However, a large portion of the vacant and on the southwest corner of that intersection was recently developed as a large warehouse – a major building footprint with very few employees.

The point is, with buildout of the area in north Chandler and the area in west Gilbert, there will be a minimal number of land use changes that will generate additional traffic. Undoubtedly most of the vehicles passing through Chandler during the workweek.

ALTERNATIVE PROPOSALS

Rather than expand Elliot, Warner and Ray Roads from 4 lanes to 6 lanes which will result in the loss of open space where stormwater basins currently exist and potentially result in the loss of homes where the open space does not exist, consider retrofitting existing streets and rights-of-way. Using Elliot Road as an example:

Alternative #1 – There are detention basins along the north side of Elliot from Arizona Avenue to Loop 101. The basins are continuous except at the major intersections where retail development and higher density residential has been built. The issues along Elliot are not traffic volumes, but active transportation issues relating to the uncomfortable and unsafe physical environment for pedestrians and bicyclists.

For this alternative, the bike lanes could be removed from the street and sidewalk removed from the curb and both could be reconstructed in the detention basins. This could be a shared trail like the Western Canal trail, or separate facilities for bicyclists and pedestrians (the preferred solution).

Alternative #2 – The existence of the detention basins would allow for expansion of the street width. Reconstruct the north curb along Elliot and provide a 2-way protected bike lane on the north side of Elliot. The bike lane on the south side of Elliot could be eliminated. The old sidewalk adjacent to the existing curb could then be replaced with a new sidewalk constructed in the detention basin or adjacent to the new curb since the new 2-lane bike lane would provide separation from the vehicle lanes.

Both Alternatives would be far less expensive than widening Elliot Rd. to 6 lanes. And Alternative #1 would be the least expensive since there would be no need to move the north curb. Each Alternative also provides the opportunity to make improvements to the detention basins by adding landscaping with a focus on trees as well as other amenities such as rest/seating areas and drinking fountains.

More importantly, either Alternative #1 or #2 would have less impact on adjacent neighborhood and result in the portion of Elliot Rd from Arizona Ave to Loop 101 having an enhanced active transportation system.

BICYCLE/PEDESTRIAN TRAVEL

In general, the existing pedestrian and bicyclist environments along the arterial streets in north Chandler is extremely uncomfortable and unsafe for both pedestrians and bicyclists.

BICYCLIST ENVIRONMENT

Bike Lanes – When added to Elliot Rd. the existing travel lanes and medium were narrowed to allow for the addition of the bike lanes. The bike lanes are narrow and unsafe, and in my experience, seldom used. Any bicyclist foolish enough to use the bike lanes is riding next to vehicle travel lanes where vehicles travel at speeds in excess of the speed limit of 45 mph. Definitely resulting in death or severe injury for the bicyclist if there is a vehicle/bicyclist collision. Bicyclist travelling Elliot, almost always ride on the sidewalk.

NOTE: There are not bike lanes on every arterial in north Chandler, i.e., Alma School Rd.

Additional Bike Lanes – Bike lanes should be added to other arterials in the area, i.e., Alma School Road.

Intersections – The bike lanes “disappear” at major intersections and there is no defined space for the bicyclist. Do they move into a vehicle lane – a decision only made by the most experienced bike rider – or continue to ride along the curb and risk a collision with a vehicle turning right?

PEDESTRIAN ENVIRONMENT

Sidewalks – The sidewalks along Elliot, Warner, and Ray Roads were, in most cases, constructed adjacent to the curb resulting in pedestrians walking adjacent to vehicles travelling at speeds of plus 45 mph. In the cases where a bike lane is provided, there is additional, albeit minimal, separation.

Having walked along Elliot multiple times, I can attest that this can be a very unpleasant, uncomfortable and unsafe experience.

Pedestrian Amenities, Or Lack Thereof – In addition to lack of separation from vehicle travel lanes, the physical environment for pedestrians is extremely harsh, particularly during those months when daytime temperatures are in the 80, 90 and 100 degree range.

The major concern is lack of shade. Along Elliot and other north Chandler arterials, there is very little shade provided. Sadly, when trees are removed because they die or there is serious damage from a storm – i.e., late summer storm in 2018 that resulted in the removal of numerous trees along Warner & Elliot – those trees are not replaced. Because there is no shade, there is no mitigation of the ambient air temperature. That temperature increases because of the higher surface temperatures of the asphalt street surface.

Intersections – Although the city has spent millions of taxpayers dollars (Prop 400?) to improve arterial street intersections, those improvements have benefitted vehicle traffic – as expected – but further aggravated the physical environment for pedestrians and bicyclists. As noted in the bicyclist environment section, major intersections can be confusing for avid bicyclists and dangerous for the casual bicyclists.

For pedestrians, the intersections have become major obstacles where they are required to cross 8-10 vehicle lanes which can be a daunting and fearful experience.

OTHER TRANSPORTATION TOPICS

Active Transportation Planning – I would like to see more discussion and action regarding enhancements for individuals choosing to use alternative forms of transportation – transit, bicycle, walking. This is particularly important for Chandler residents who want to lead a healthy lifestyle. Providing a system of trails and sidewalks that are designed to encourage use by bicyclists and pedestrians encourages residents to be more active and ultimately, healthier.

Complete Streets Policy – It would be a real demonstration of leadership if the city would adopt a Complete Streets Policy. An ad hoc approach does not clearly put forth city policies and results in inconsistencies for new street construction and more critically for how the city will move forward with the process of retrofitting existing streets.

Vision Zero Program – This program would put in place specific actions to be taken by the city to reduce vehicle/vehicle collisions, bicyclist/vehicle collisions, pedestrian/vehicle collisions and pedestrian/bicyclist collisions.

More specifically “**Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.**” **Vision Zero Network**

TRANSIT TRAVEL

The concepts presented regarding major transit corridors makes sense. I certainly support Az Ave. as either a light rail or bus rapid transit corridor and the connection of the corridor with the light rail system. As the primary street accessing downtown Chandler from the north, having an alternative travel mode in place is critical to the long-term vitality of downtown. The other proposed transit corridors make sense, particularly the Chandler Blvd. corridor.

Current Transit Conditions – Improvements to the bus shelters relating to the provision of shade are appreciated. However, there is still a need to design a bus shelter that is more responsive to providing shade.

TRANSPORTATION TECHNOLOGY

I liked the transportation hub concept. My concern is that there is not a clear city policy regarding how the city will address making the pedestrian environment and the bicyclist environment more attractive for residents to use. The overall policy focuses on moving vehicles at the cost of providing a safe, comfortable physical environment for pedestrians and bicyclists to use the street system.

Comments from Christiane Quintans:

I am glad to see the road enhancements expand to connect the southeast portion of Chandler to 4-lanes and increase roadway capacity. Especially love the connectivity comments in regards to filling gaps in the bike-lane (and sidewalk infrastructure ie. SW corner of Alma & Pecos). Also, great concept for the mobility hub as IT infrastructure gets further.

May not be directly within the scope of this plan, but I do have concerns as the design process proceeds with the 6-lane expansions. Particularly, the longer-term programmed enhancements to Alma School south towards Queen Creek and Germann Rds. I understand between the growing Price & Arizona Ave. that Alma is a frequented arterial corridor wedged between two booming areas; however I do enjoy the neighborhood characteristic and worry that if the streets are to be widened it will further discourage and eliminate, rather than support and enhance, walkable environments for pedestrians and bikes and creating a healthy active community for the next 20 years. Currently most neighborhoods south of the 202 seem isolated rather than connected, and if additional lanes are to be added, great care should be taken to ensure that it does not come at the expense of over-widening lanes rather than narrowing them in certain areas, increasing vehicular dependency, expanding the crossing distance, increase vehicular speeds, or eliminate too much of the visual shade infrastructure (ie: median tree landscaping).

In keeping with the General Plan, continuing to link neighborhoods to existing nearby commercial pockets and employment should continue to be a focus for connectivity. The Leveraging Technology section highlights potential areas to connect destinations and should continue to be considered and integrated into future focus areas, and not solely dependent upon the arrival of smart-cars.

***Linking neighborhoods to destinations & amenities** Although not much individual design can be altered in places like the Ocotillo neighborhoods that are already their own master-planned community, efforts to link existing commercial pockets to neighborhoods for those on foot or bike should be promoted. For example, Chuparosa Park can not conveniently access nearby residential neighborhoods on foot at either W. Earl Blvd. or near W. Kingbird without J-walking, driving across, or walking an additional half-mile each way to reach the intersection to cross. A crosswalk to link pedestrian paths may not be reasonably viable at every opportunity (ie: A person working from home in Ocotillo area can travel to the Downtown Ocotillo shops with an extra 1/4 mile to cross the main intersections on foot, even though the E. Market Pl. road and W. Edgewater Way are closer and directly across from each other but without pedestrian access to cross), however even allowing striping to indicate pedestrians have a right to cross would go a long way at connecting neighborhoods to each other.

-In coordination with the microtransit ideas, a city circulator between the mall, down price employment corridors (as it builds out) and to community assets like Snedigar and Hamilton/Tumbleweed to Downtown Arizona Ave. would be great.

***Providing pedestrian infrastructure** Ideally, for pedestrian-friendly environments to have connected networks that are utilized for all ages and populations, benches and accommodations such as creative landscaping for shade, or mindfulness of pedestrian routes next to large setbacks of asphalt at crossings need to be considered if people are to be more comfortable using active forms of transportation. People cannot be expected to support public transit or walk distances to bus stops if it's inconveniently out of the way during the summer where only the most determined or dependent populations will use it. Transportation networks should collaborate with individual commercial design plans to ensure that odd layouts such as the Ocotillo Plaza on the N/w corner of Alma & Queen Creek or the SW corner across Hamilton High have clear flow and designated paths for both vehicular and pedestrian traffic. Although different in commercial scale/purpose, commercial designs that are more pedestrian friendly are those like the west corners of Ocotillo & Alma School or even the other surrounding commercial corners on Queen Creek & Alma.

Really liked the idea of providing flex transit service and utilizing microtransit options, especially in areas where the bus routes may not be the most viable or efficient. Marketing promotion of that service to the nearby businesses and neighborhoods would be great upon completion too. Curious and excited to see how the shared use paths along the 202 and railroad corridor are implemented, and hope that landscaping and design elements to discourage exposure to air pollution will be thoughtfully made.

Comments from Donald Levine:

I am a resident of Chandler and I would like to submit a suggestion for economic enhancement of our community. There are a number of intersections that support significant infrastructure on all four corners of very busy roadways. These intersections would benefit tremendously from the addition of pedestrian walkways either above or below the street level. The benefits gained will include, but are not limited to, the following few items;

1. Pedestrian safety (always #1)
2. Reduced use of crosswalks to improve road use and vehicle safety
3. Business accessibility and improved ability to attract and share both parking facilities and foot traffic, to the benefit of all businesses
4. Improved accessibility to community infrastructure such as libraries, performance halls, civic centers, parking garages, parks and recreation facilities.

I submit the following examples;

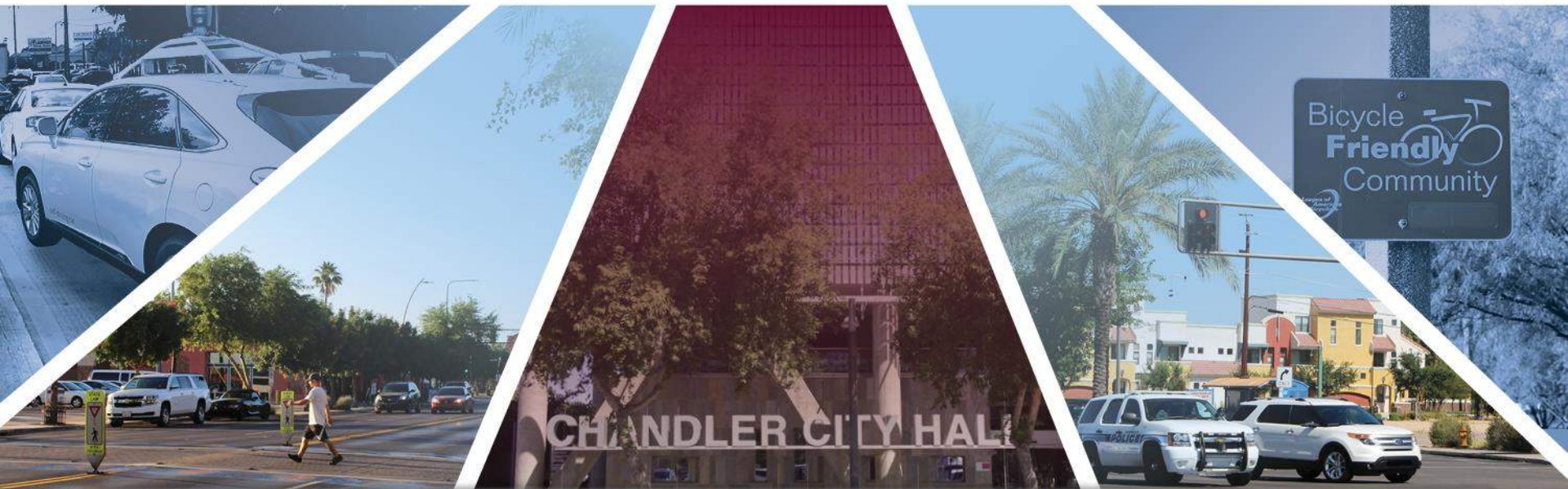
1. The intersection of Arizona Ave and Ocotillo Road
 - a. Three of the corners have large walking malls anchored by "Big Box" businesses including Target, Home Depot, Lowes, Big 5, Staples, and Pet Smart
 - b. There are dozens of smaller businesses and restaurants surrounding the anchor mall stores
 - c. The fourth corner contains the Hamilton Aquatic Center, Hamilton High School, and the Hamilton Library.
2. The intersection of Chandler Blvd and Price Road
 - a. All four corners have high density residential complexes within easy walking distance of the intersection
 - b. The Fashion Center Mall with associated stores, businesses, and restaurants
 - c. The Chandler Festival Mall with associated stores, businesses, and restaurants
 - d. On the other two corners there are a number of large industrial facilities and office buildings which certainly contribute significant foot traffic, as well as many stores and restaurants
3. The intersection of Arizona Ave and Chandler Blvd
 - a. You are perhaps very well acquainted with the many benefits this location would provide for the city, and perhaps since it is associated directly with the major city facilities this would be the ideal flagship / demonstration location for such an innovation.

I have done a bit of traveling to other countries and observed the ease with which foot traffic can be accommodated by both under the road walkway tunnels and elevated foot bridges. European cities in particular seem to prefer them, placing them at many major crosswalk locations as well as most major intersections. With the wonderful weather we enjoy it would seem to me that foot traffic should be encouraged and would be made safer by these changes. Please feel free to contact me if you want me to elaborate on this idea or expand in anyway on specifics.

Public Meeting – January 2019



Transportation Master Plan 2019 Update & Arizona Avenue Alternatives Analysis



**4 Stations to visit: Roadway, Bicycle/Pedestrian, Transit, and
Arizona Avenue Alternatives Analysis**

Chandler Transportation Master Plan 2019 Update

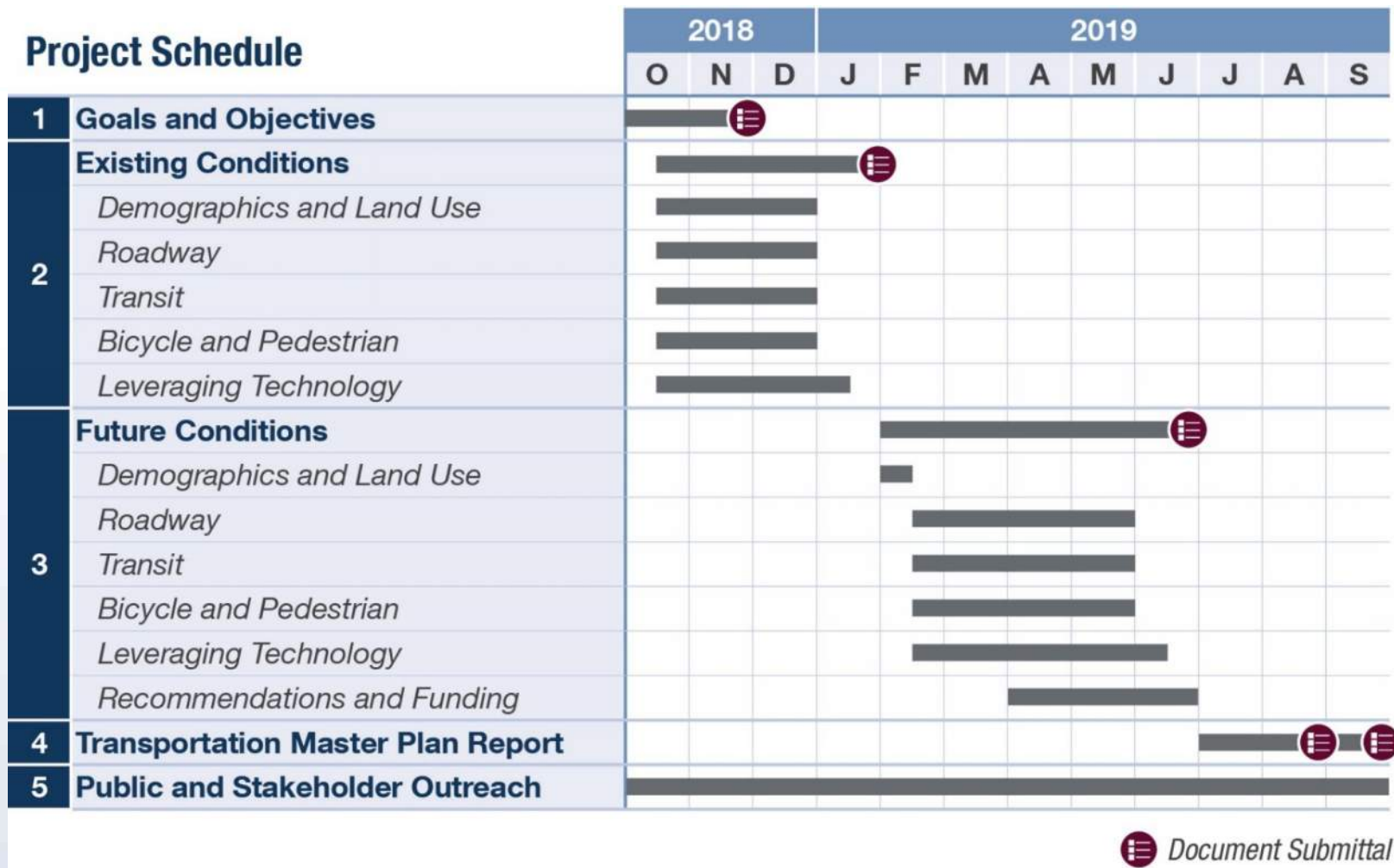
 ***Keep Chandler Moving!***

Take our Transportation Survey!

KeepChandlerMoving.com



Transportation Master Plan 2019 Update Schedule



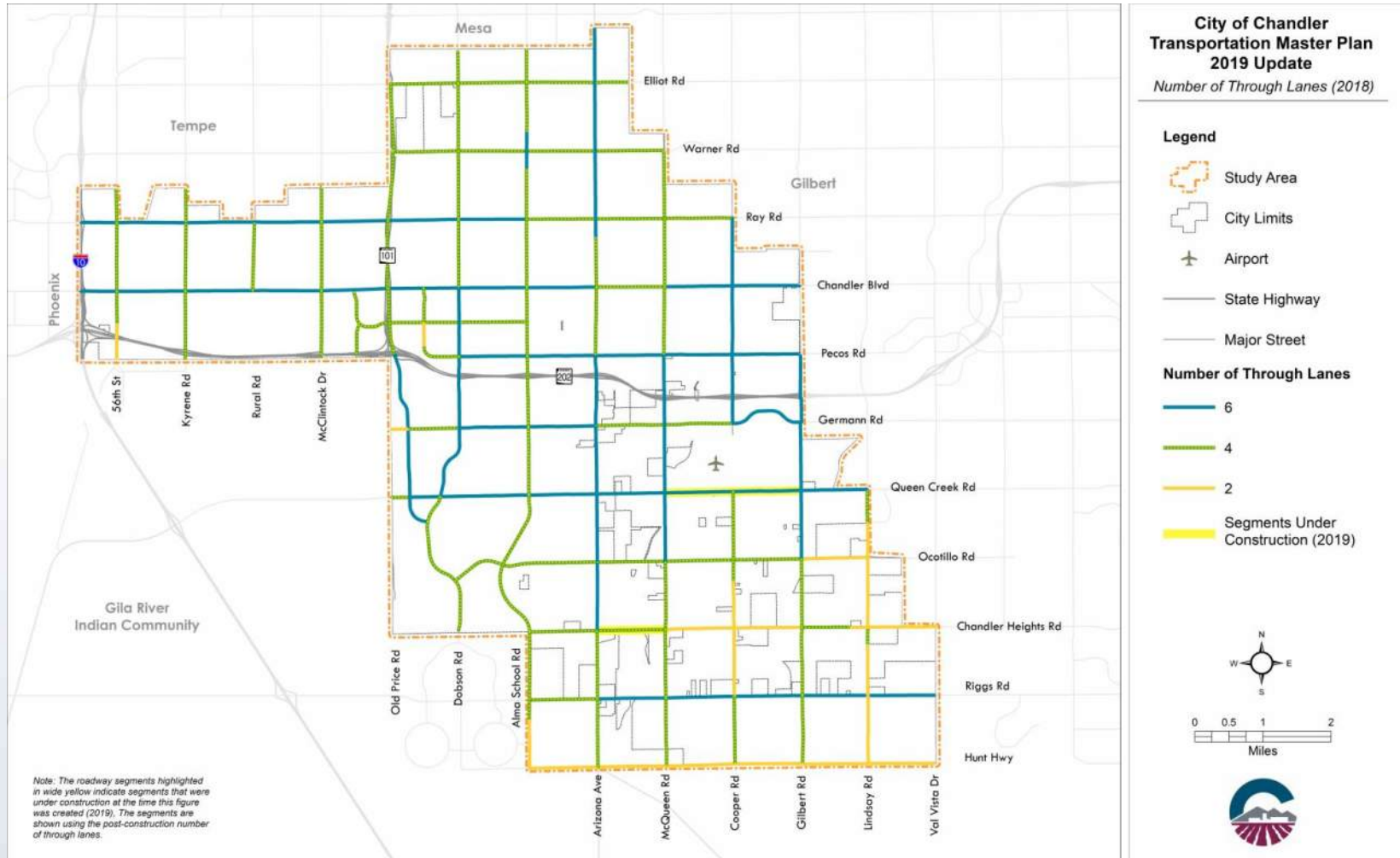
Transportation Master Plan Purpose

Develop an environmentally-friendly, multimodal transportation system that leverages technology and provides choices to make Chandler known as the “Most Connected City”

- Enhance transportation system
- Promote alternative mode choices
- Provide connections between modes
- Apply new and emerging technologies
- Provide enhanced real-time travel information

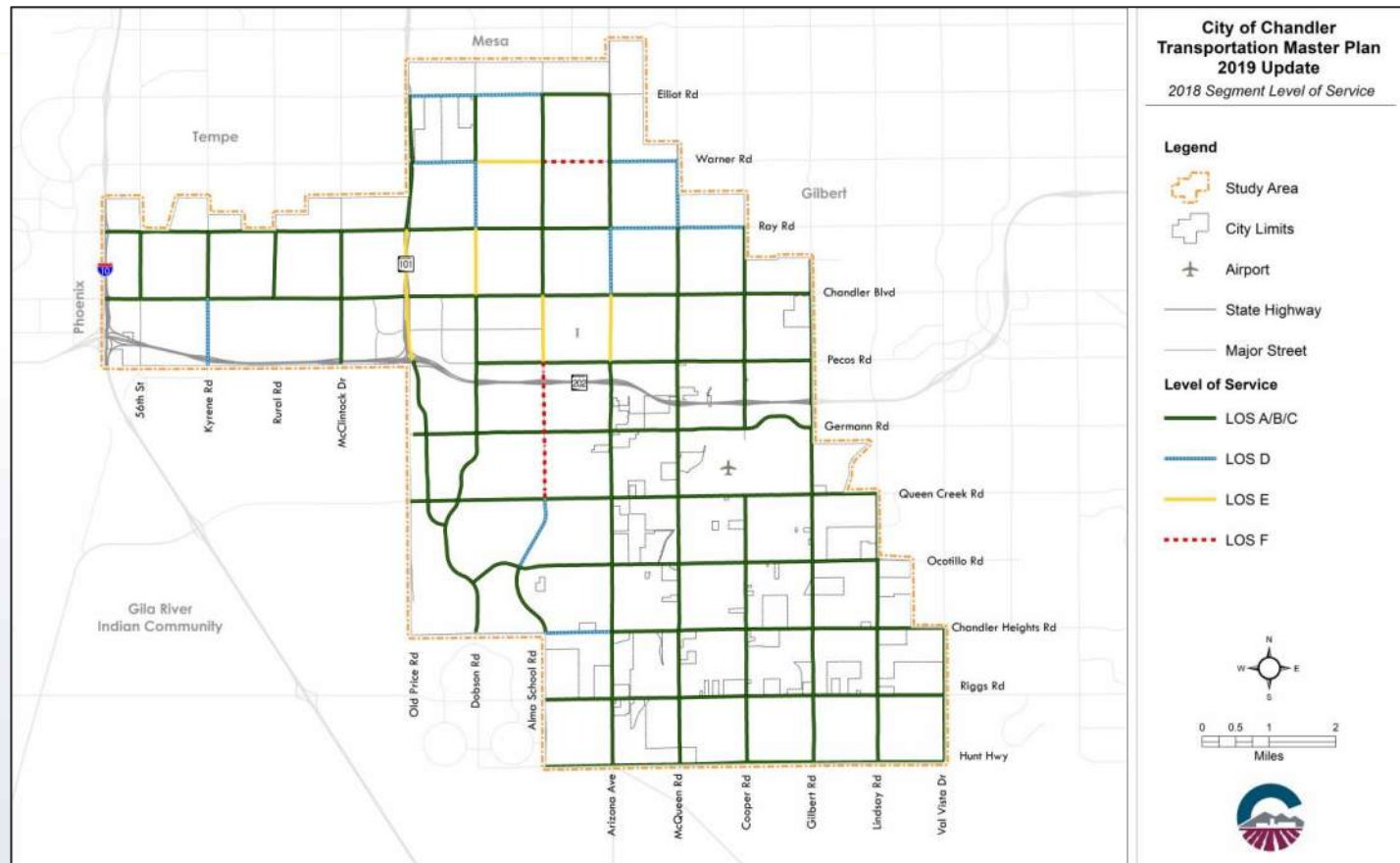


Roadway Element Existing Road Network



Roadway Element Traffic Congestion

At what locations do you often see traffic congestion? (May use up to 3 dots)



Roadway Element Traffic Safety

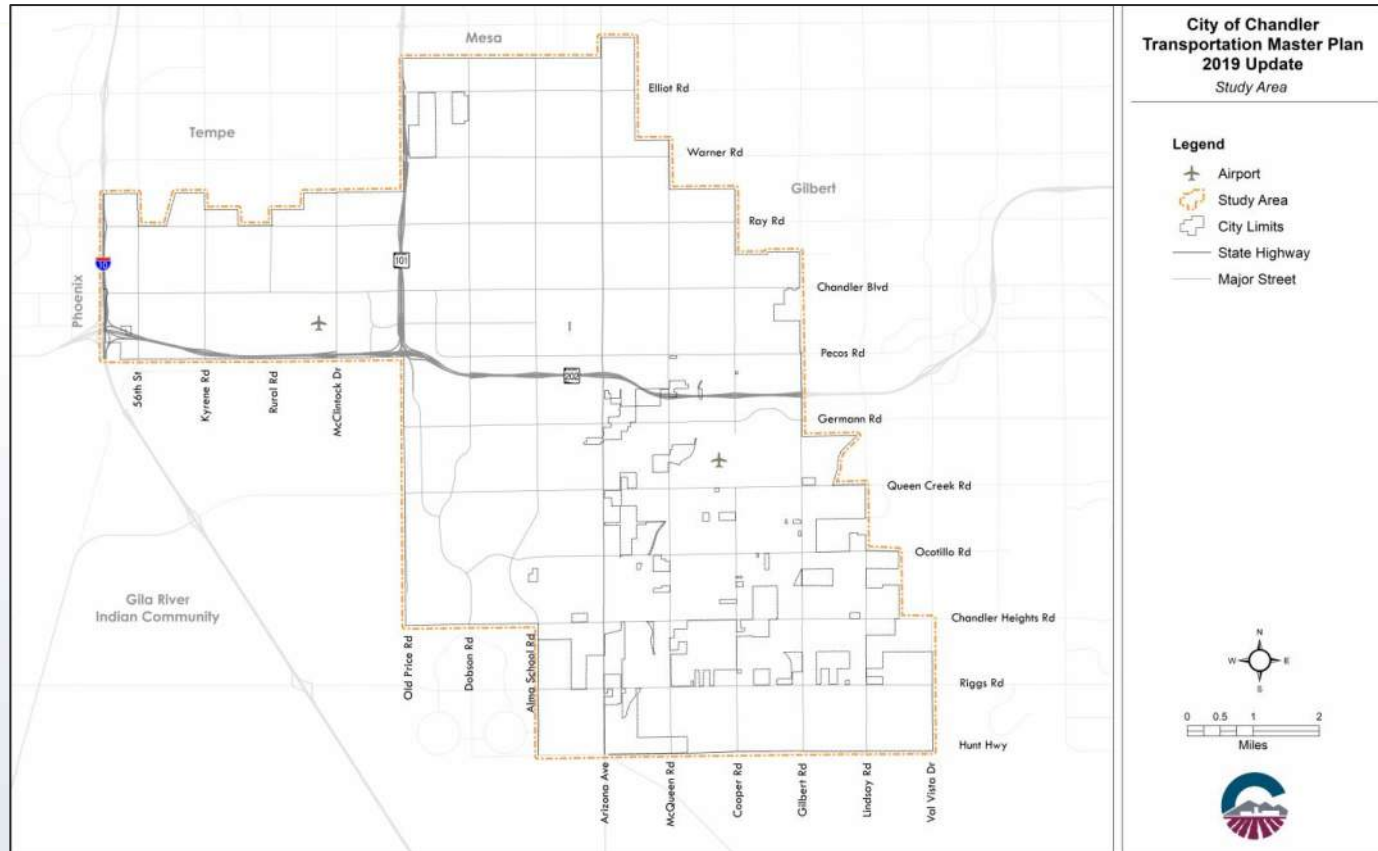
At what locations do you have traffic safety concerns? (May use up to 3 dots)



Roadway Element

Desired Road Improvements

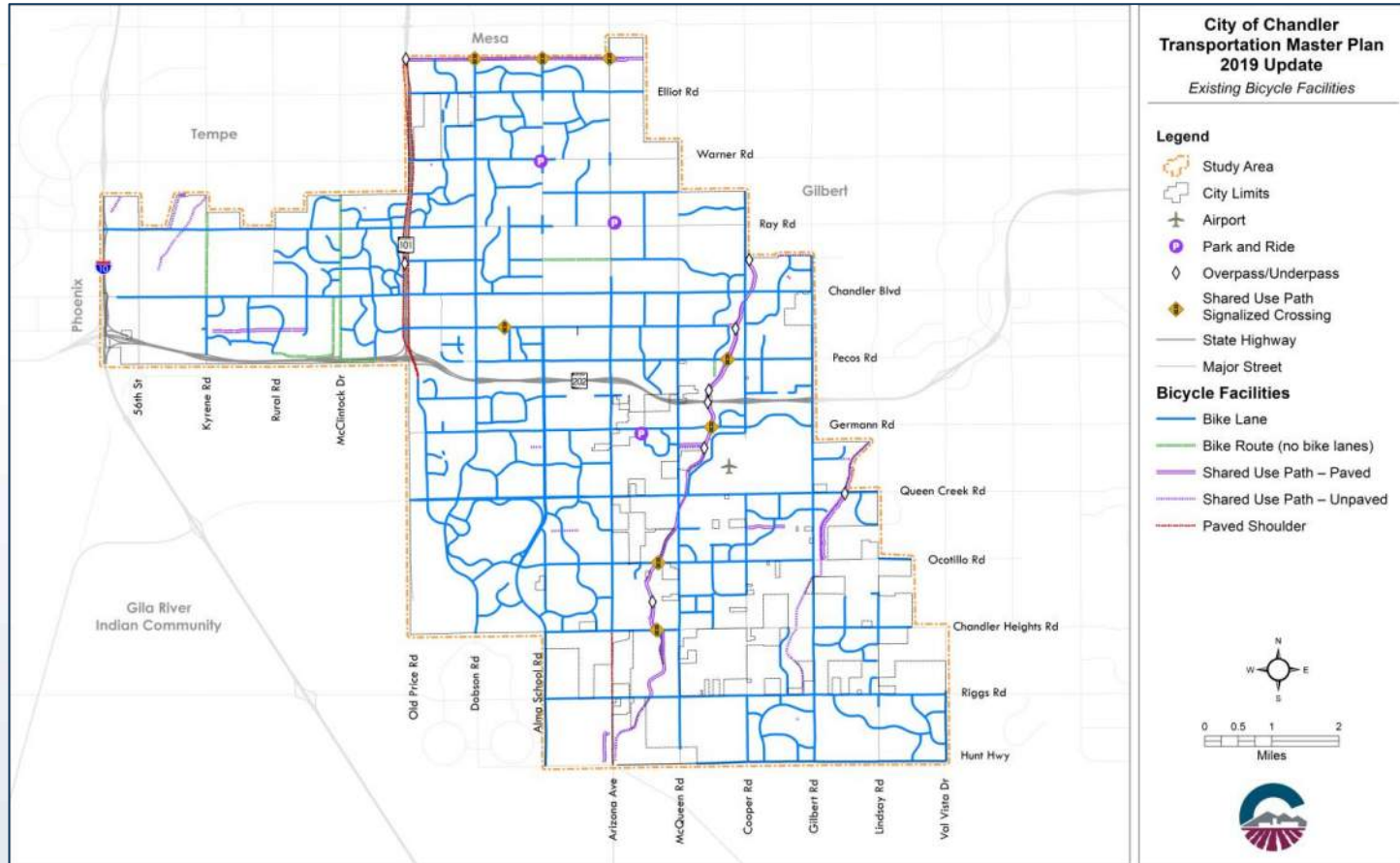
At what locations do you think road improvements should be made first? (May use up to 3 dots)



Bicycle/Pedestrian Element

Existing Bicycle Network

At what locations do you see gaps or issues with the bicycle network? (May use up to 3 dots)



Bicycle/Pedestrian Element

Bicycle Comfort Level

Put a dot in box by bicycle comfort category that most applies to you



Strong and Fearless: ok riding on roads without bike lanes



Enthusied and Confident: ok riding on roads if they have bike lanes



Interested but Concerned: prefer separated bike paths/lanes with little or no interaction with vehicles



No Way, No How: not interested in riding a bicycle on or near major roads

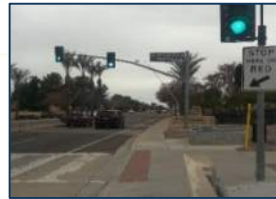


Bicycle/Pedestrian Element Desired Amenities

What amenities would you like to see more of? (May use up to 3 dots)



Enhanced sidewalk:
combination sidewalk and
landscape/sitting area



Signalized mid-block crossing: signal between
roadway intersections



Shared use biking/walking path:
such as along canals



Buffered sidewalk:
landscape between
roadway and sidewalk



Pedestrian signal:
flashing signal that stops
traffic only when needed



Shared bike/scooter:
rentable bikes or
scooters



Bike lane: dedicated
lane on side of roadway



Separated bike lane: bike
lane protected from roadway

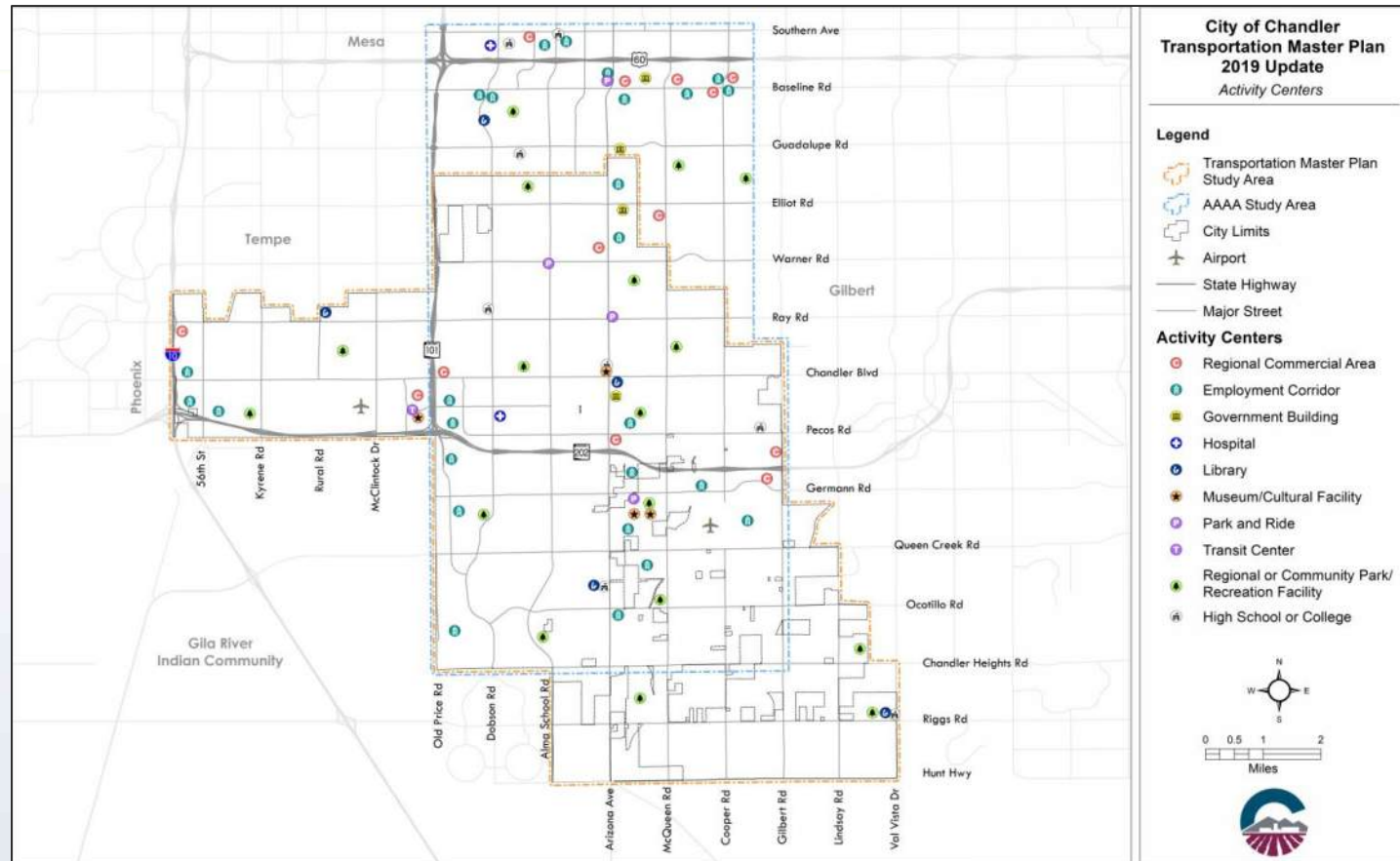


Rapid flashing beacon:
warning lights flash as
people are crossing



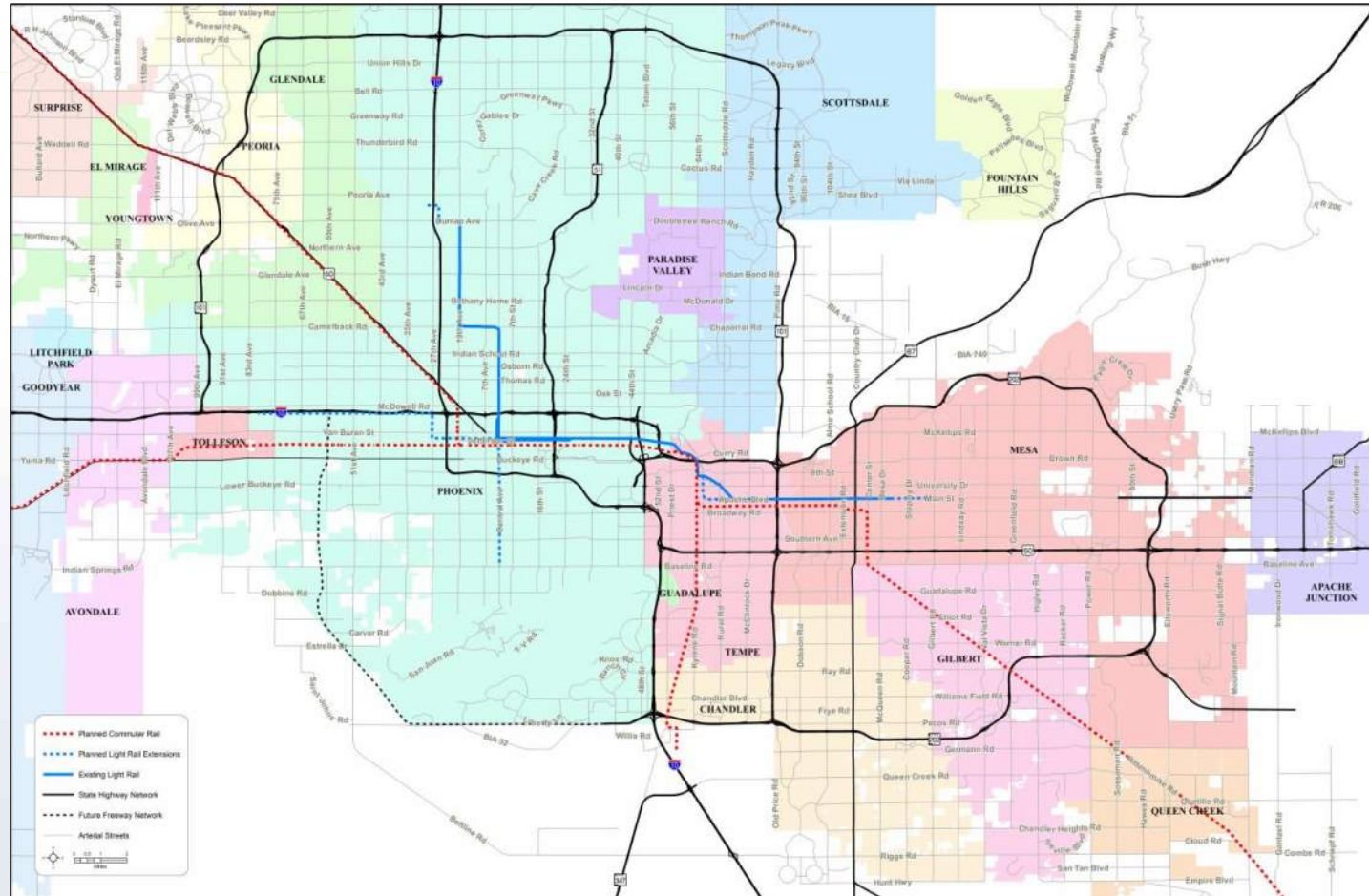
Transit Element Local Destinations

To what locations would you like local transit service to take you? (May use up to 3 dots)



Transit Element Regional Destinations

To what locations would you like regional transit service to take you? (May use up to 3 dots)



Transit Element

Desired Transit Services

What transit services would you most use? (May use up to 3 dots)



Commuter rail: train connecting employment centers to outer areas



Local bus: dedicated routes within and between cities



Vanpool/carpool: ride-sharing using private vehicles



Light rail/streetcar: train traveling on roads through region



Circulator: shuttle bus with fixed routes and schedules in localized area



Shared microtransit/ car/taxi: ride-matching using private vehicles



Express bus: regional connector with few stops



Bus rapid transit: operates in separate lane from cars



ASU express: shuttle to ASU campus





Transportation Master Plan 2019 Update & Arizona Avenue Alternatives Analysis

Public Meeting

OCTOBER 24, 2019 | CITY OF CHANDLER

5 Stations to visit: Roadway, Bicycle/Pedestrian, Technology, Transit, and Arizona Avenue Alternatives Analysis



CHANDLER CITY HALL

Kimley»Horn

Transportation Master Plan Purpose

Leverage technology to provide a sustainable, multimodal transportation system for the community

- Enhance transportation system management and operations
- Promote alternative mode choices
- Provide connections between modes
- Apply new and emerging technologies
- Provide enhanced real-time travel information

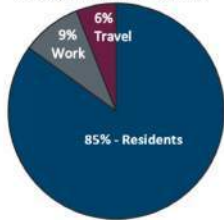
Survey Results



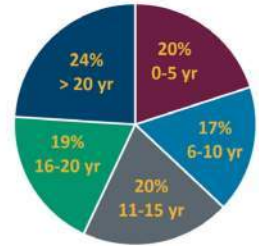
Keep Chandler Moving!

Survey results – by the numbers

Interest in Chandler Transportation because ...



Residents have lived in Chandler ...

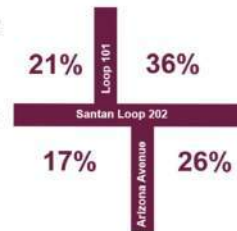


**1,075
Total
Responses**

When asked why they were interested in a specific mode and what features were important ...

	Automobile	Bicycle	Pedestrian	Transit
Why this mode?	1. Convenience 2. Cost-effective 3. Leisure/recreation	1. Leisure/recreation 2. Environmental sustainability 3. Cost-effective	1. Leisure/recreation 2. Environmental sustainability 3. Convenience	1. Cost-effective 2. Convenience 3. Environmental sustainability
What is important?	1. Quick travel time 2. Ease of access 3. Feeling safe	1. Feeling safe 2. Ease of access 3. Multiple route options	1. Feeling safe 2. Comfort/attractive features 3. Ease of access	1. Quick travel time 2. Ease of access 3. Feeling safe

When asked where they primarily travel in Chandler ...



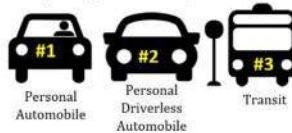
Mode of Travel the City should invest in Most & Second Most in the future



Current Primary & Secondary Mode of Travel

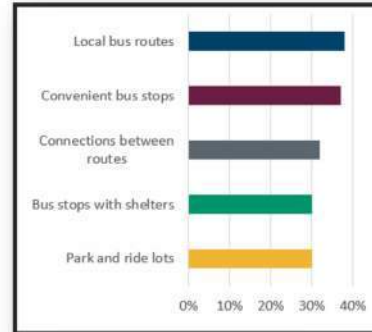


Mode of travel respondents believe will be their primary mode in 20 years

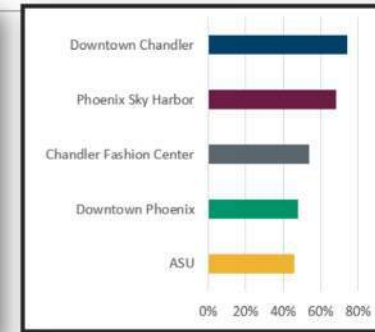


For travel by Transit in Chandler ...

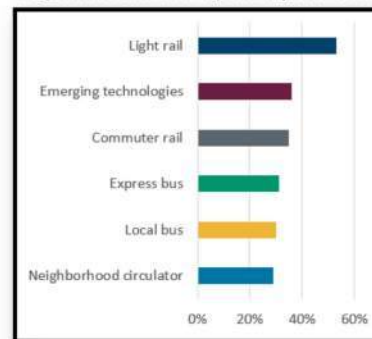
Most important features for respondents are ...



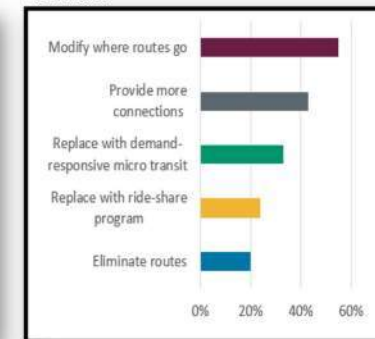
Important destinations respondents believe Transit should serve ...



For longer-term transit improvements, respondents believe the City should prioritize ...



For transit routes with low ridership, respondents believe the following should be done ...



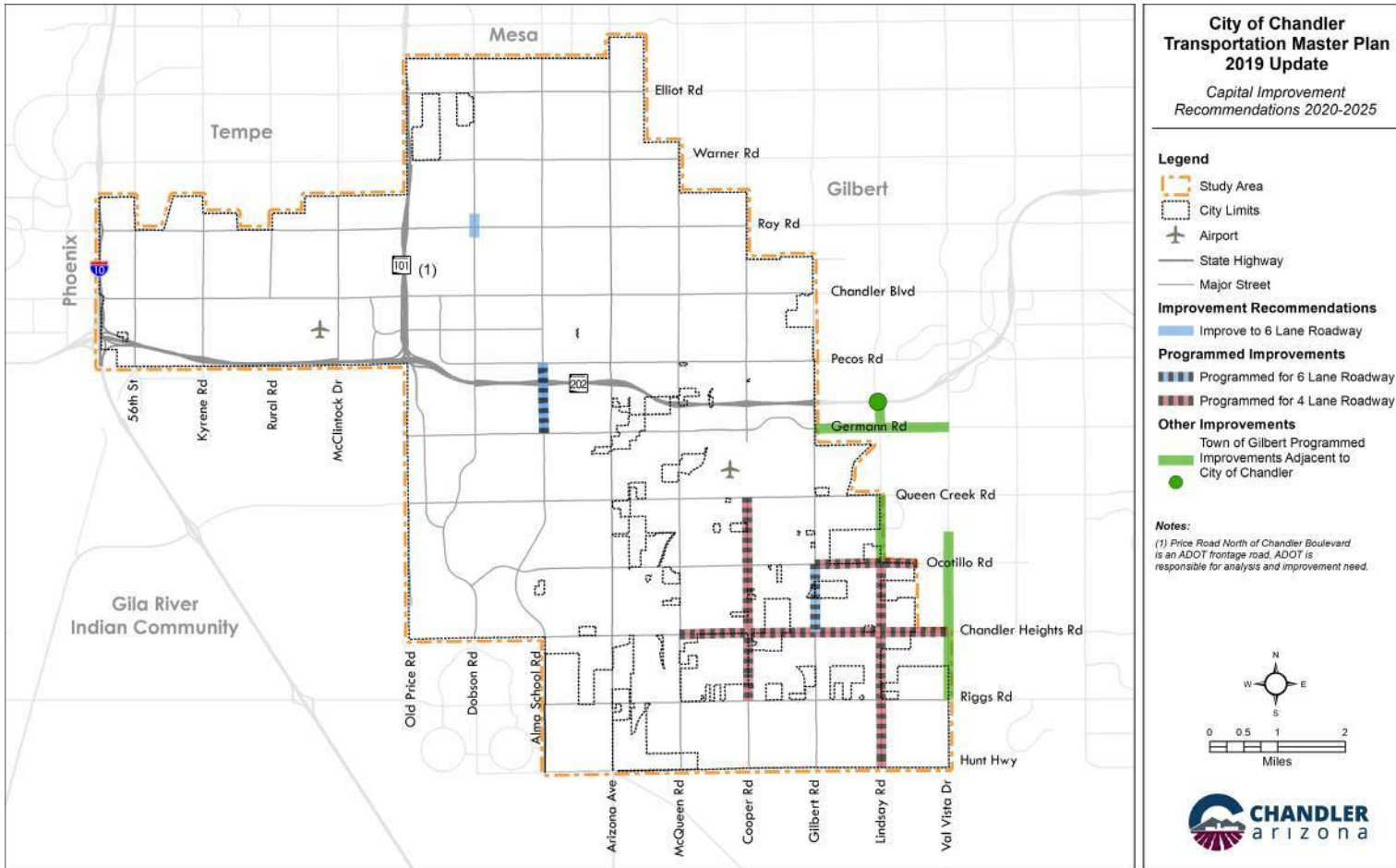
Project Information: 480.898.4060 | KeepChandlerMoving.com

RESPONDENTS WERE NOT REQUIRED TO RESPOND TO ALL QUESTIONS AND IN SOME CASES, WERE PERMITTED TO SELECT MULTIPLE RESPONSES.



Roadway Element

Draft Near-Term Recommendations (2020-2025)

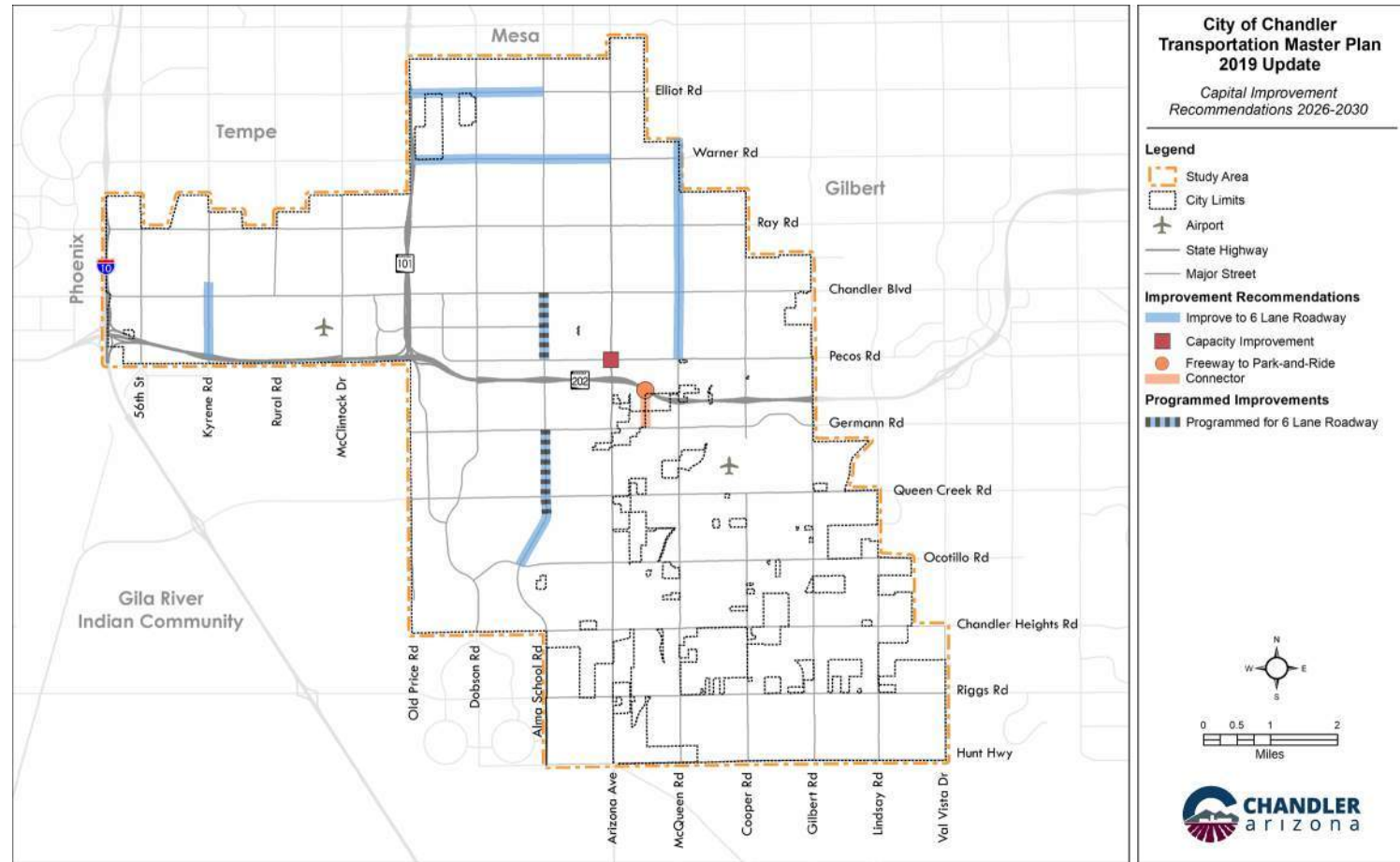


- **Widen to 4 lanes (programmed):**
 - Chandler Heights Rd
 - Ocotillo Rd
 - Cooper Rd
 - Lindsay Rd
- **Widen to 6 lanes (programmed):**
 - Alma School Rd
 - Gilbert Rd
- **Widen to 6 lanes (new):**
 - Dobson Rd
- **Adjacent agency projects shown**

Roadway Element

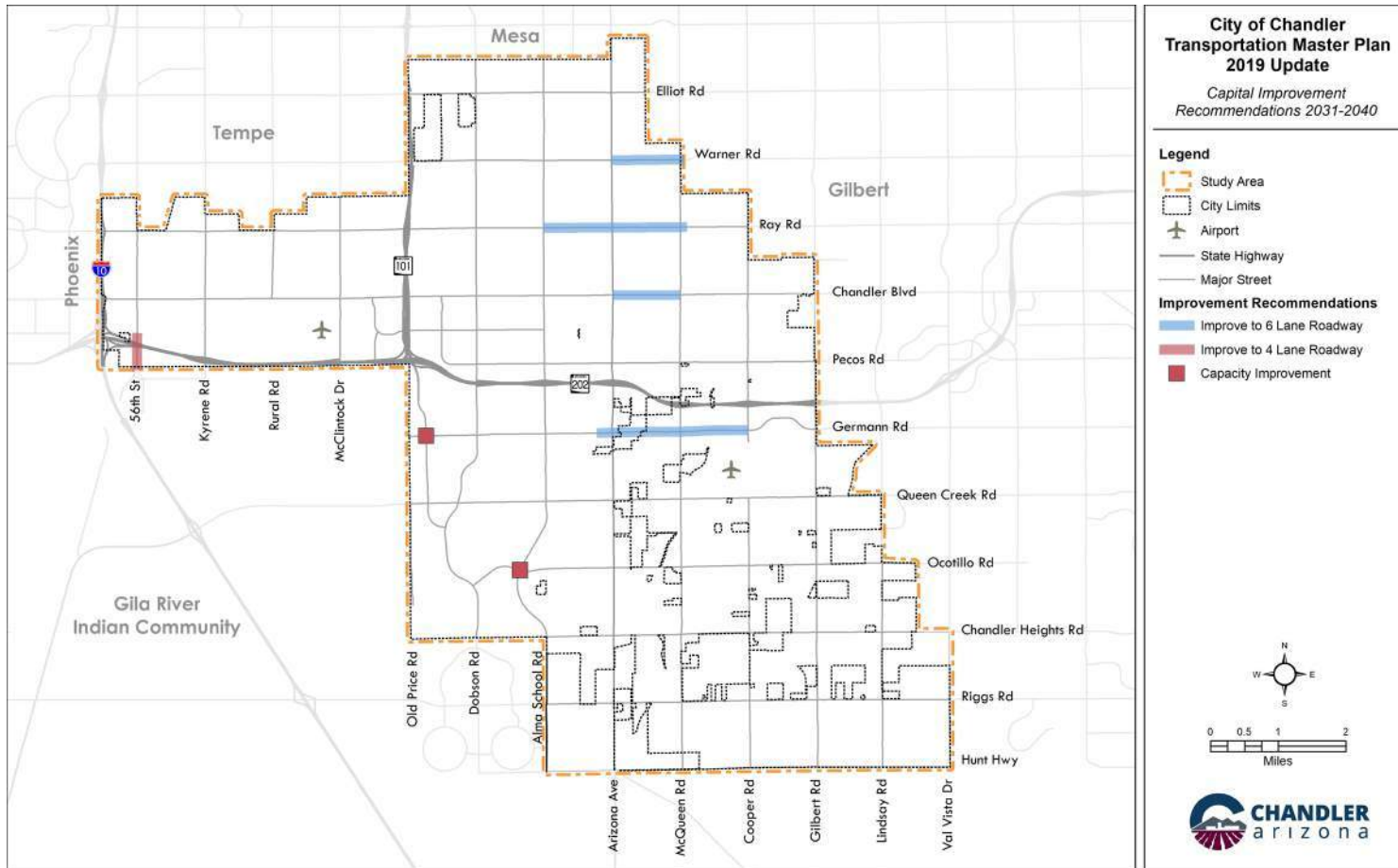
Draft Mid-Term Recommendations (2026-2030)

- **Widen to 6 lanes (programmed):**
 - Alma School Rd
- **Widen to 6 lanes (new):**
 - Elliot Rd
 - Warner Rd
 - Kyrene Rd
 - Alma School Rd
 - McQueen Rd
- **Other improvements:**
 - Pecos Rd/Arizona Ave
 - Freeway to Park-and-Ride Connector



Roadway Element

Draft Long-Term Recommendations (2031-2040)



- **Widen to 6 lanes:**

- Warner Rd
- Ray Rd
- Chandler Blvd
- Germann Rd

- **Widen to 4 lanes:**

- 56th St

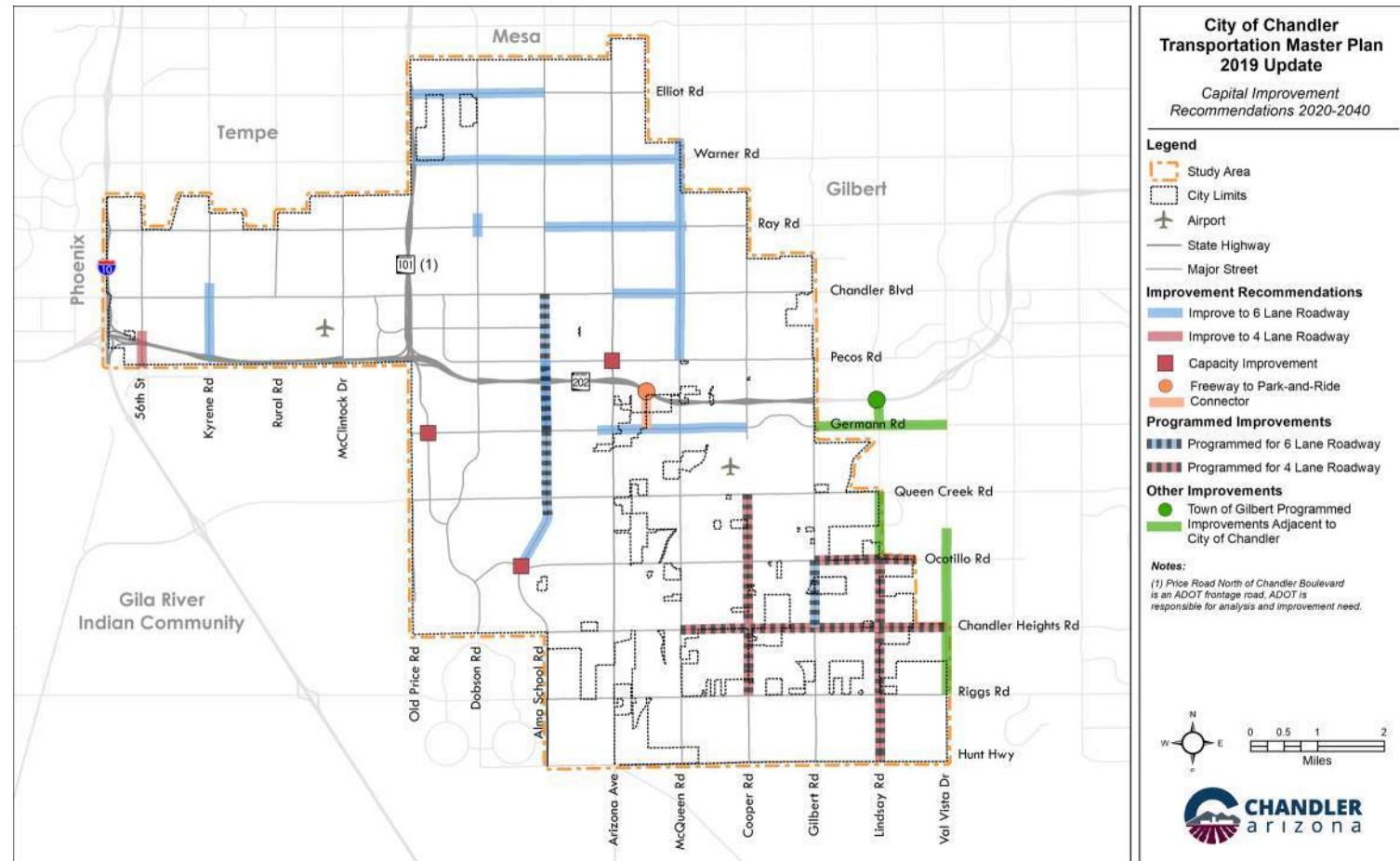
- **Capacity improvement:**

- Germann Rd/Price Rd
- Ocotillo Rd/Alma School Rd

Roadway Element

Draft Recommendations Combined (2020-2040)

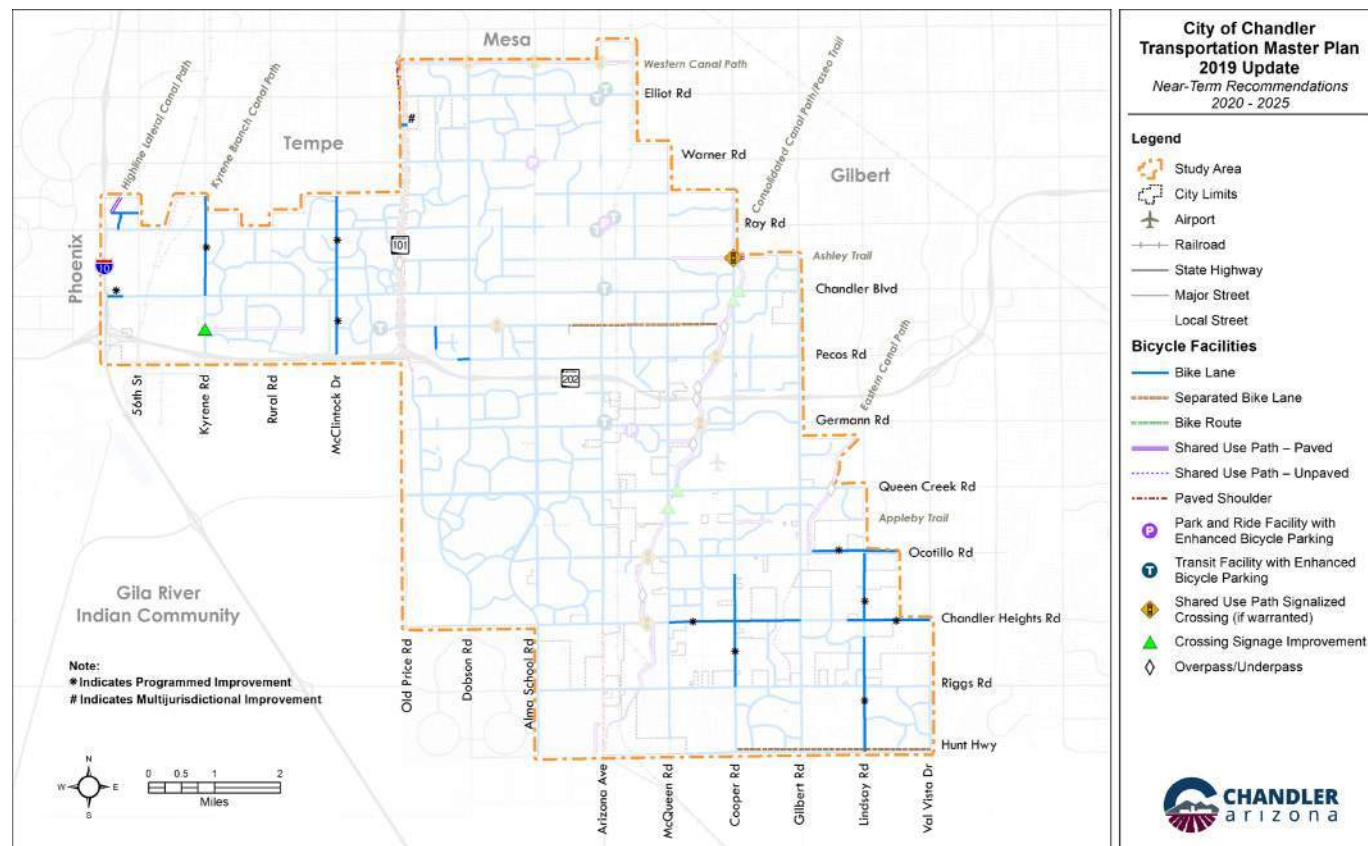
- Network of primarily 4-lane and 6-lane roads
- Several 4-lane roads with 6 lanes at intersections north of Loop 202 and east of Loop 101



Bicycle/Pedestrian Element

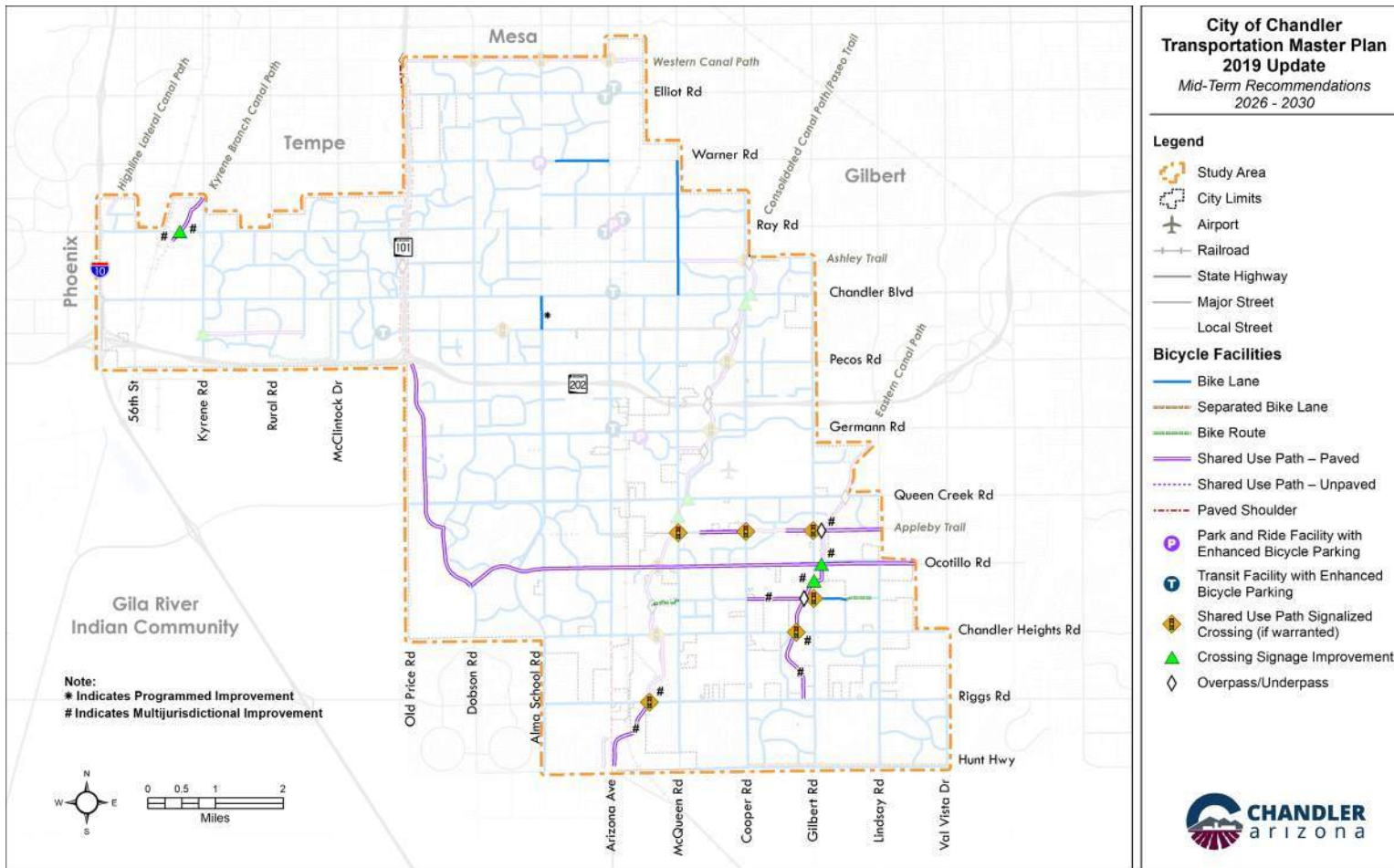
Draft Near-Term Recommendations (2020-2025)

- Programmed bike lanes:
 - Chandler Blvd
 - Kyrene Rd
 - McClintock Dr
 - Part of roadway widening
- On-street separated/buffered bike lanes:
 - Frye Rd
 - Hunt Hwy
- Paved shared use path:
 - Highline Canal
 - Ashley Trail (with signalized crossing)



Bicycle/Pedestrian Element

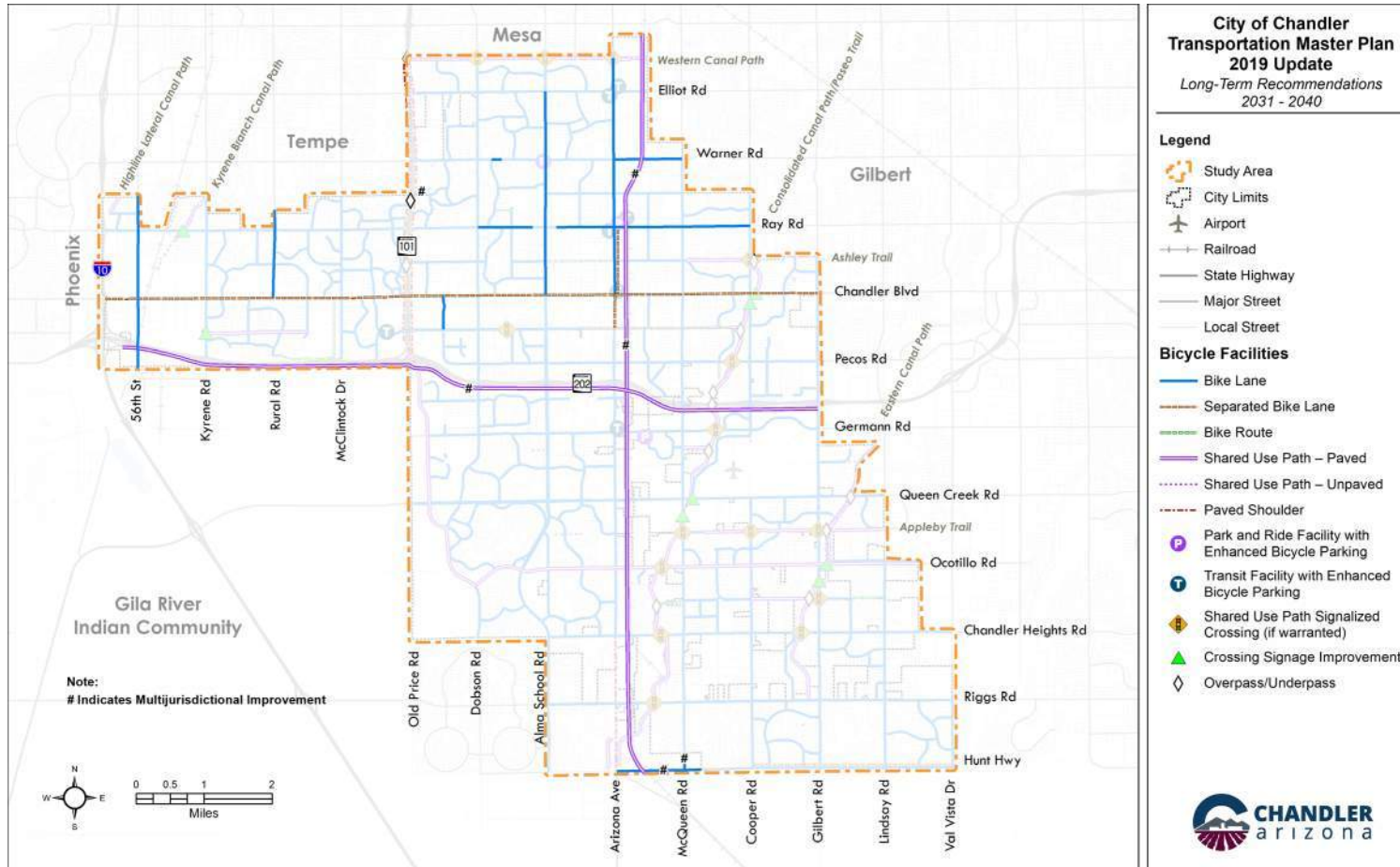
Draft Mid-Term Recommendations (2026-2030)



- Bike lanes (generally part of roadway widening)
- Paved shared use path:
 - Ocotillo Rd
 - Price Rd
 - Appleby Trail
 - Eastern Canal
 - Consolidated Canal
 - Kyrene Branch Canal
- Signalized path crossings
- Bridges over Eastern Canal

Bicycle/Pedestrian Element

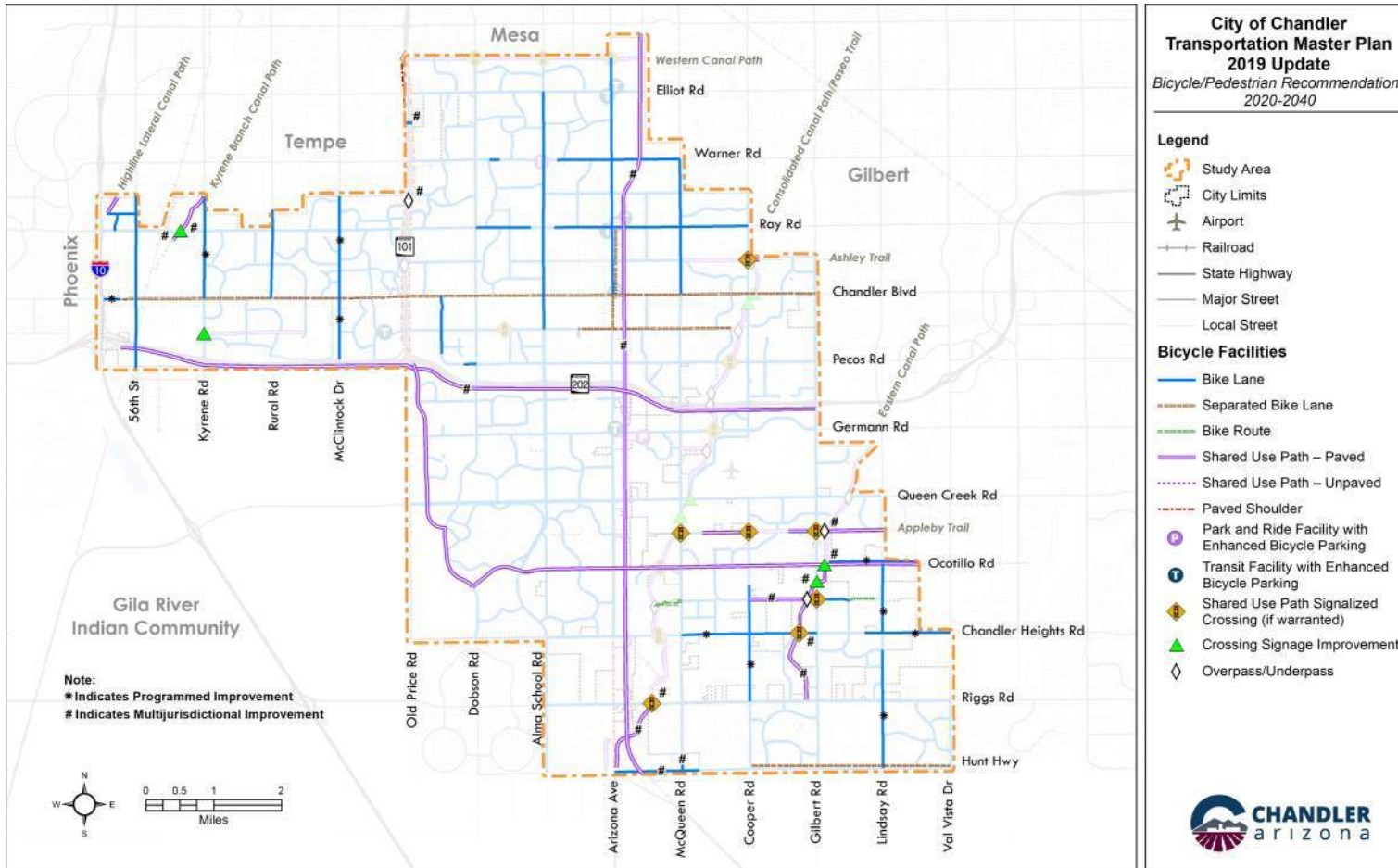
Draft Long-Term Recommendations (2031-2040)



- Bike lanes (some are part of roadway widening)
- Paved shared use path:
 - Loop 202
 - Railroad spur
- Loop 101 overpass
- On-street separated/buffered bike lanes:
 - Chandler Blvd
 - Arizona Ave

Bicycle/Pedestrian Element

Draft Recommendations Combined (2020-2040)



- Bike lanes on all arterials
- Shared use path signalized crossings at all arterial roads (if warranted)
- All shared use paths paved
- Interconnected network of on-street and off-street facilities

Leveraging Technology

Mobility Hubs – Sample Concept

City Heights Transit Plaza (Mobility Hub Concept)



1 ENHANCED TRANSIT WAITING AREA	2 REAL-TIME TRAVEL INFORMATION	3 WALKWAYS 3 Curb extension	4 CROSSINGS 4 High visibility crossing	5 BIKE PARKING 5 Secure group bike parking facility	6 DEDICATED TRANSIT LANES	7 MICROTRANSIT	8 PACKAGE DELIVERY
9 STREET FURNITURE	10 ENHANCED PAVING	11 MEDIAN REFUGE ISLAND	12 BIKEWAY	13 BIKE REPAIR STAND	14 BIKESHARE	15 TRANSIT SIGNAL PRIORITY	16 WAYFINDING
17 UNIVERSAL TRANSPORTATION ACCOUNT							

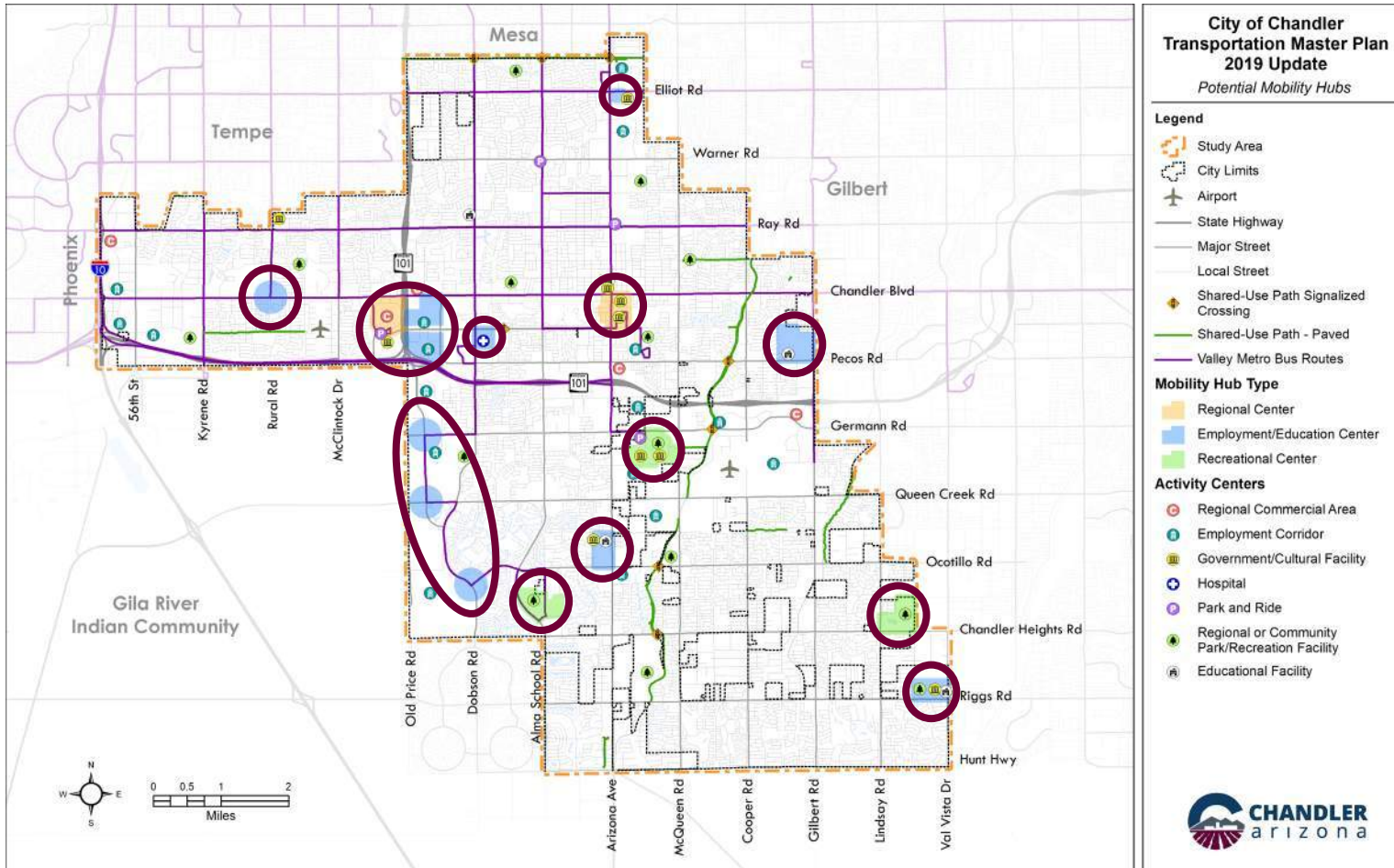
Sample mobility hub concept:

- Multiple transit routes
- Seating/shade
- Real-time travel info with interactive kiosks
- Bike parking
- Car-share parking
- Rideshare curb space
- Wayfinding
- Lockers

Source: SANDAG

Leveraging Technology

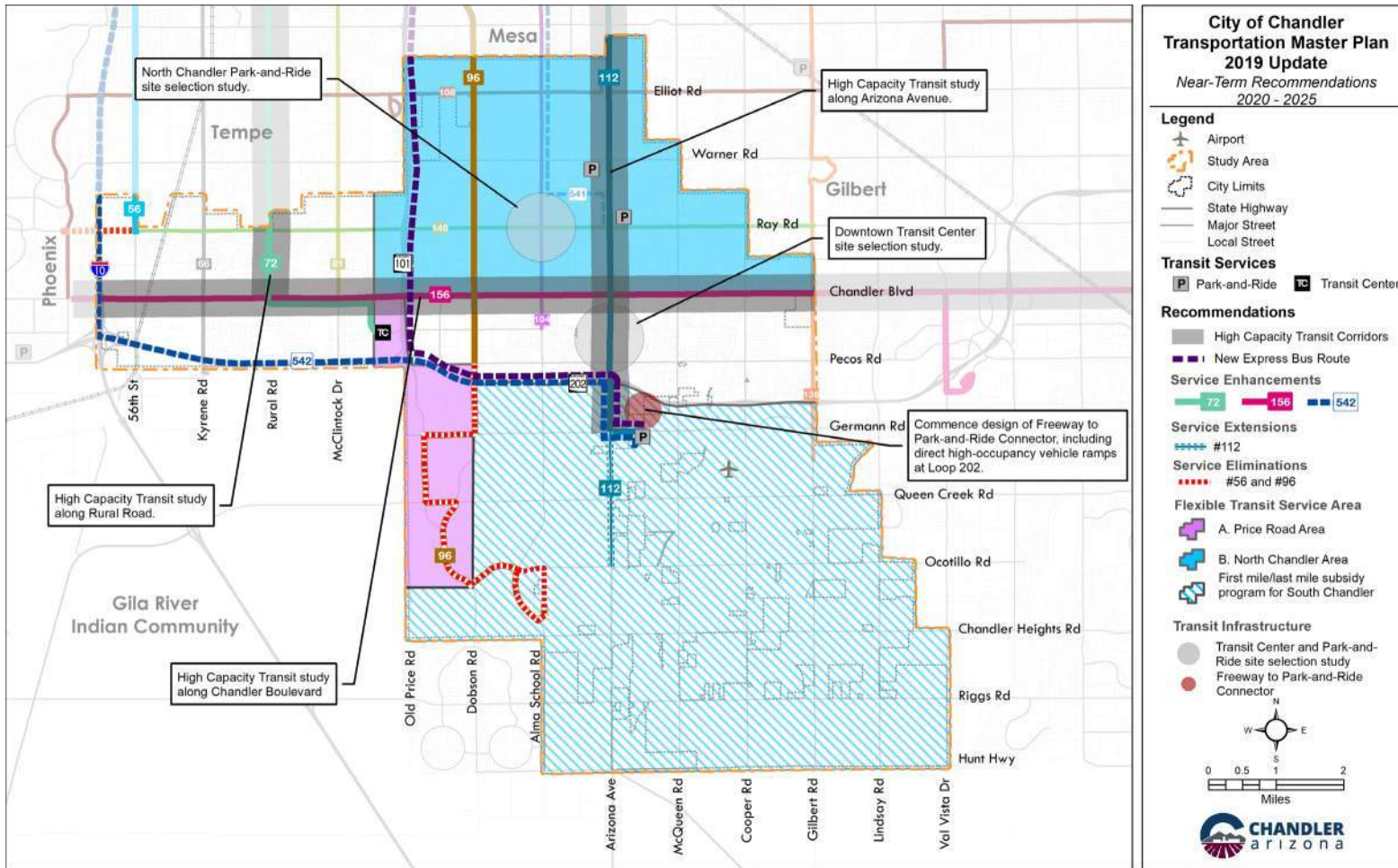
Draft Recommendations (2020-2040)



- Physical/virtual mobility hubs:
 - Traveler information
 - Accommodation for all modes
 - Traveler amenities
- Technology strategies:
 - Focus on people and data
 - Flexible policies
 - Partner with private sector

Transit Element

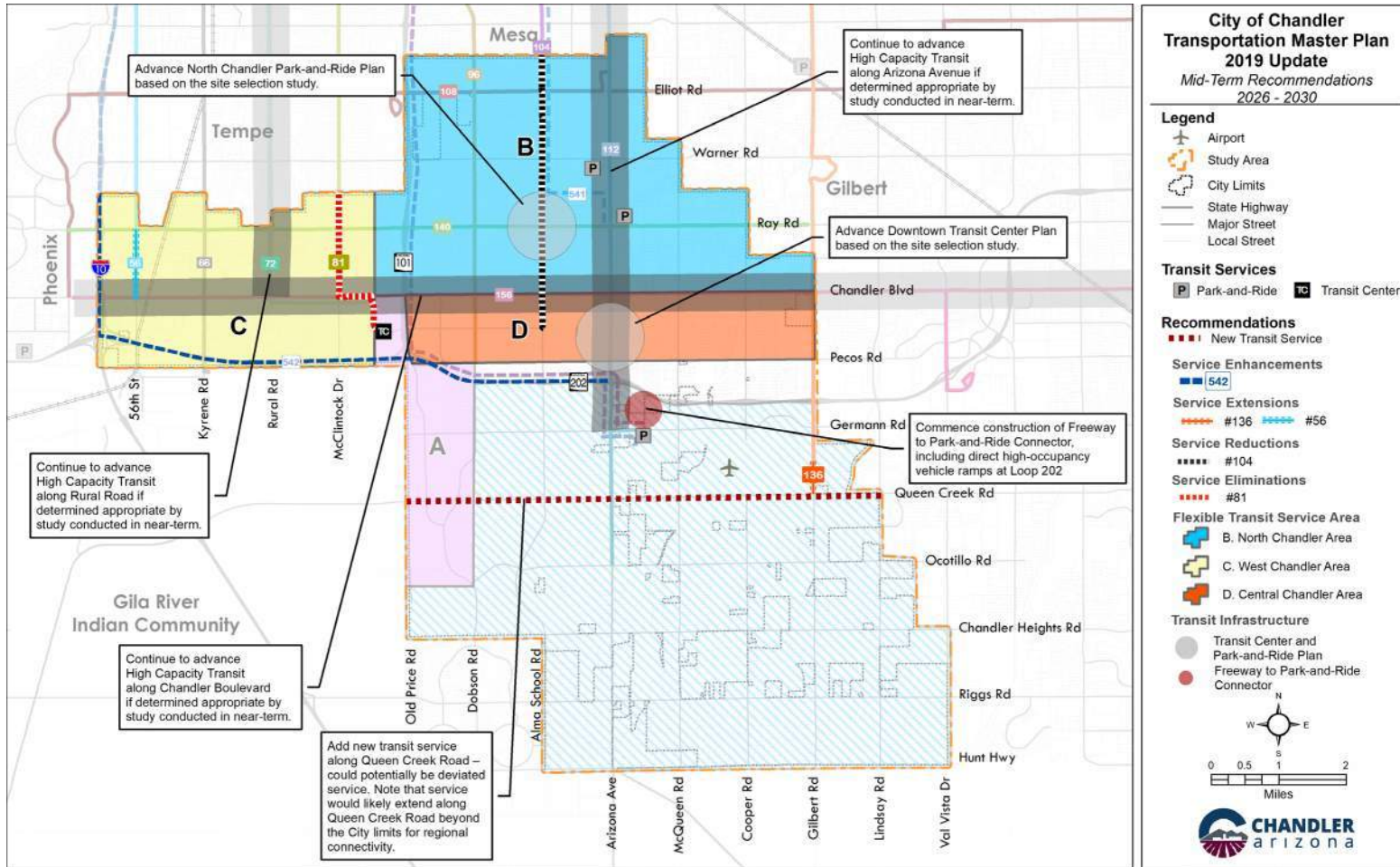
Draft Near-Term Recommendations



- Local bus service refinements
- New express bus route
- Flexible transit service areas:
 - Price Road (pilot)
 - North Chandler (study)
- First mile/last mile subsidy program in South Chandler
- Site selection and high capacity transit studies

Transit Element

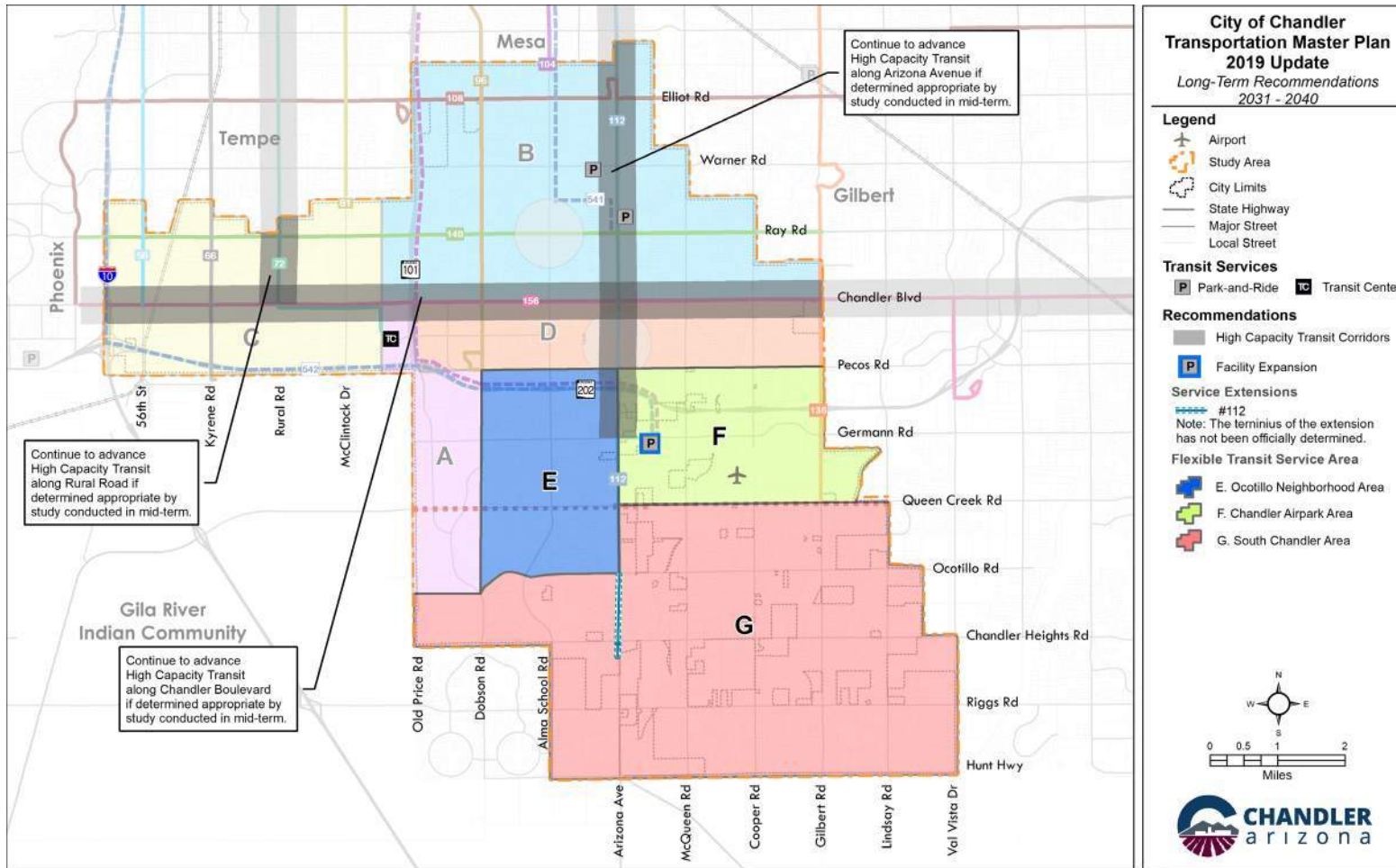
Draft Mid-Term Recommendations



- Local bus service refinements
- New service on Queen Creek Rd
- Freeway to park-and-ride connector
- Flexible transit service areas:
 - North, West, and East Chandler
- Construct transit center and park-and-ride

Transit Element

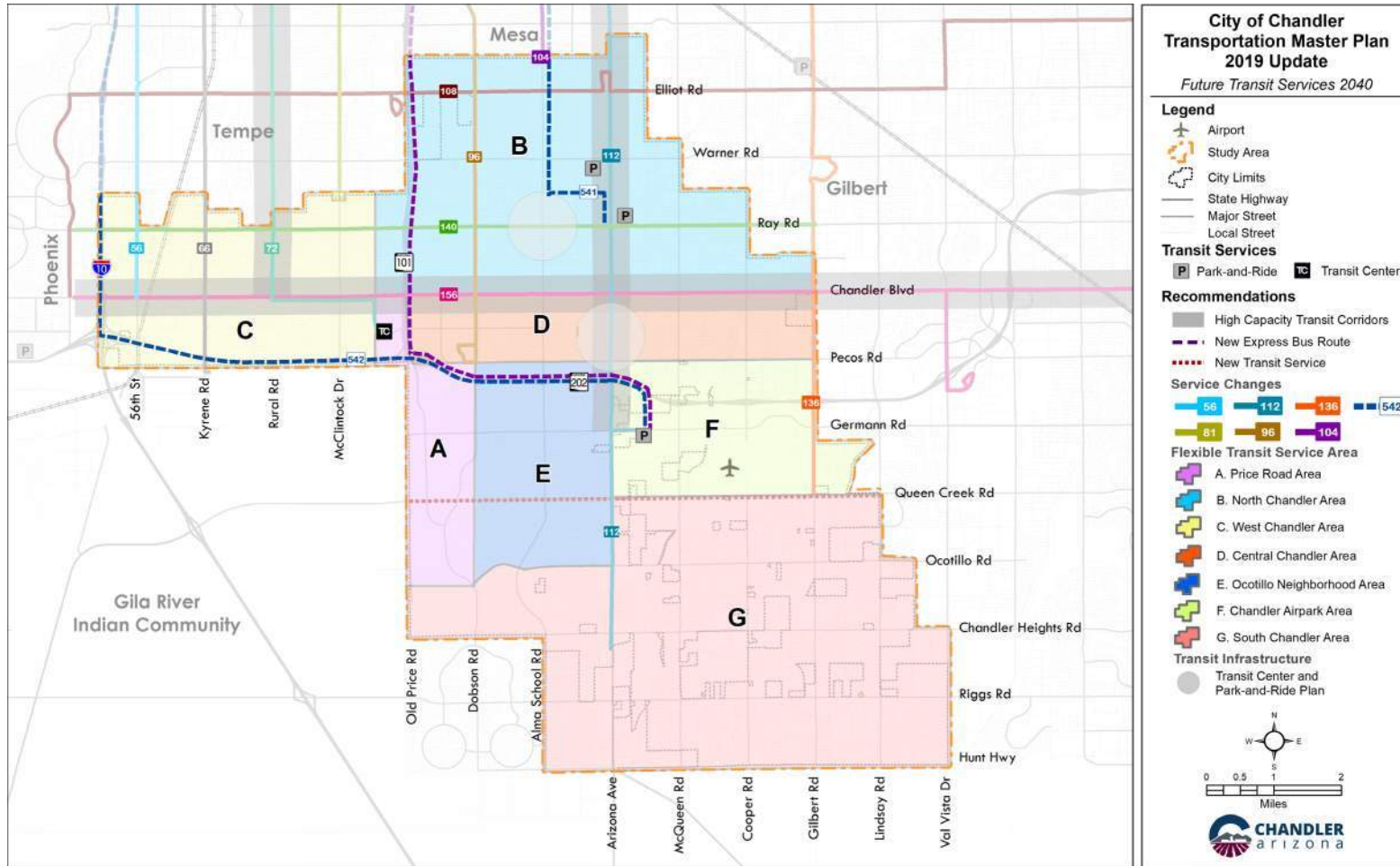
Draft Long-Term Recommendations



- Flexible transit service areas:
 - Ocotillo
 - Chandler Airpark
 - South Chandler
- High capacity transit corridors:
 - Arizona Ave
 - Chandler Blvd
 - Rural Rd

Transit Element

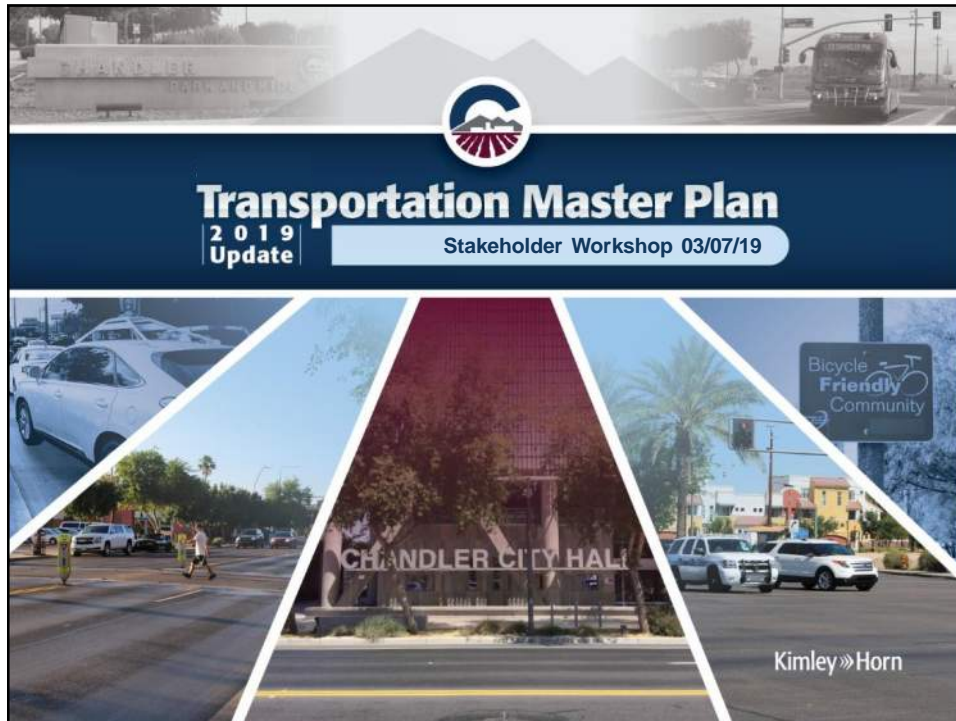
Draft Recommendations Combined (2020-2040)



- Flexible transit service covers most of Chandler
- Interconnected hierarchy of routes
 - High capacity transit
 - Express bus
 - Local bus
- New/expanded transit centers and park-and-ride lots

What's Next?

- **Nov. 6, 2019:** Transportation Commission review of draft recommendations and stakeholder/public input
- **Late 2019:** Transportation Master Plan Final Report submittal
- **Early 2020:** City Council consideration for approval of Transportation Master Plan



Today's Agenda

- Meeting objectives and administration
- Introductions
- Project overview
- Transportation Master Plan elements (Roadway, Bike/Ped, Transit)
- Community engagement results
- Next steps
- Closing comments and adjourn



Meeting Objectives

- Present information on the Transportation Master Plan 2019 Update process and status
- Provide opportunities for input related to stakeholder communities
- Help the project team understand how stakeholders view the various elements of transportation
- Explain next steps and how to communicate with the project team



Meeting Administration

- Where are the rest rooms?
- Cell phones
- Critique ideas, not people... show respect for the views of others
- Avoid side conversations
- Listen with an open mind – differing opinions
- Focus on functional, constructive controversy
- 30-second soapbox 🕒
- Communicate effectively by actively listening
- Enjoy our time together 😊



Why are you here?

- You represent a specific community or organization that influences transportation in Chandler
- A smaller group lends itself well to discussions
- Help identify specific transportation trends & issues for your organization
- Provide valuable information to project team for plan development
- Provide input on potential solutions for your organization and the City as a whole



Question #1

If you could say one thing about transportation in Chandler TODAY, what would that be?




TRANSPORTATION MASTER PLAN CONSIDERATIONS


Transportation Master Plan 2019 Update
Kimley»Horn 7

Transportation Master Plan Schedule

Project Schedule		2018			2019								
		O	N	D	J	F	M	A	M	J	J	A	S
1	Goals and Objectives	[Deliverable icon]											
	Existing Conditions	[Deliverable icon]											
	Demographics and Land Use	[Deliverable icon]											
	Roadway	[Deliverable icon]											
2	Transit	[Deliverable icon]											
	Bicycle and Pedestrian	[Deliverable icon]											
	Leveraging Technology	[Deliverable icon]											
	Future Conditions	[Deliverable icon]											
	Demographics and Land Use	[Deliverable icon]											
	Roadway	[Deliverable icon]											
3	Transit	[Deliverable icon]											
	Bicycle and Pedestrian	[Deliverable icon]											
	Leveraging Technology	[Deliverable icon]											
	Recommendations and Funding	[Deliverable icon]											
4	Transportation Master Plan Report	[Deliverable icon]											
5	Public and Stakeholder Outreach	[Deliverable icon]											


Transportation Master Plan 2019 Update
Kimley»Horn 8

Transportation Master Plan Purpose

Develop an environmentally-friendly, multimodal transportation system that leverages technology and provides choices to make Chandler known as the “Most Connected City”

- Enhance transportation system
- Promote alternative mode choices
- Provide connections between modes
- Apply new and emerging technologies
- Provide enhanced real-time travel information




ROADWAY ELEMENT




Roadway Element Arterial Existing Conditions

- Arterial roadway network mostly built out
- 7 roadway projects in design or construction
- Capacity constraints
- High-crash locations
- Communications network for traffic devices




City of Chandler
Transportation Master Plan
2019 Update
Number of Roadway Miles: 2018

Legend
Major Arterial
Minor Arterial
Intersections
Chandler Planning Area
Major Planning Area
Transit
Arterial
City of Chandler
City of Chandler
City of Chandler




Transportation Master Plan 2019 Update



11

Roadway Element Look to the Future


- The study is looking at needed changes from current road improvement plan
- Where are the future bottlenecks/congestion?
- Needed regional transportation improvements?
- How will rideshare and shared bike/scooter programs impact transportation?
- How will self-driving/connected vehicles change the future?



Source: 2010 Chandler TMP



Transportation Master Plan 2019 Update


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Question #2

Related specifically to roadway elements, what does the project team need to know?





BICYCLE/PEDESTRIAN ELEMENT




Bicycle/Pedestrian Element Existing Conditions

- Bicycle lanes and sidewalks on most major roads
- Some off-street paths/trails along canals/powerlines but gaps in network
- Some signalized mid-block crossings
- Bicycle/pedestrian crashes
- ADA Transition Plan
- Shared bike/scooter companies





Transportation Master Plan 2019 Update

Kimley  Horn 15

Bicycle/Pedestrian Element Look to the Future

- How to improve safety for bicyclists and pedestrians?
- Separated/protected bike lanes?
- Priorities for off-street improvement locations and features?
- Where is bicycle/pedestrian connectivity needed?
- How to better accommodate disadvantaged populations?
- Future of shared bikes/scooters?





Transportation Master Plan 2019 Update

Kimley  Horn 16

Question #3

Related specifically to bicycle and pedestrian elements, what does the project team need to know?



TRANSIT ELEMENT



Transit Element Existing Conditions

- Local bus routes
- Express bus route with park-and-ride lot
- Paratransit services
- Connections to existing light rail and regional bus network



Transit Element Look to the Future

- Support for high-capacity transit corridors (Rural Rd, Arizona Ave, Chandler Blvd)?
- Bus service enhancement or reduction?
- Support for alternatives to local bus service (e.g., on-demand, circulator)?
- How to make paratransit services more cost-effective?
- Impacts of shared car/bike/scooter companies?
- How will technology change transit functionality and transit demand?



Question #4

Related specifically to transit elements,
what does the project team need to
know?



COMMUNITY ENGAGEMENT



Community Engagement Approach

- Technical Advisory Committee
- Public meetings
- Stakeholder workshops
- Online survey
- Website
- Social media






Transportation Master Plan 2019 Update

Kimley  23

Public Meeting #1 Community Engagement "Dot" Exercise

Roadway Element Traffic Congestion


At what locations do you often see traffic congestion? (May use up to 3 dots ●)




Transportation Master Plan 2019 Update

Bicycle/Pedestrian Element Desired Amenities


What amenities would you like to see more of? (May use up to 3 dots ●)




Enhanced sidewalk: continuation sidewalk and landscape/lighting area




Signalized mid-block crossing: signal bike/pedestrian intersections




Buffered sidewalk: landscape between roadway and sidewalk



Pedestrian signal: flashing signal that lets traffic only when road is clear



Bike lane: dedicated lane on side of roadway




Separated bike lane: lane protected from traffic


Transportation Master Plan 2019 Update

Transit Element Desired Transit Services


What transit services would you most use? (May use up to 3 dots ●)




Commuter rail: train connecting employment centers to outer areas




Local bus: dedicated routes within and between cities




Vanpool/carpool: ride-sharing using private vehicles




Light rail/intercity: train traveling on roads through region



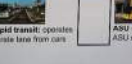
Circulator: shuttle bus with fixed routes and schedules in localized areas




Shared microtransit: car/bike-sharing using private vehicles



Express bus: regional connector with few stops




Bus rapid transit: operates in separate lane from cars




ASU express: shuttle to ASU campuses

Transportation Master Plan 2019 Update



Transportation Master Plan 2019 Update

Kimley  24

Public Meetings “Dot” Exercise Results

- Roadway
 - Several corridors and intersections where attendees have traffic safety concerns (e.g., Ray Rd, Arizona Ave)
 - Several corridors and intersections where attendees regularly experience traffic congestion (e.g., Alma School Rd, Warner Rd)
 - Improvements desired where only two existing lanes or where attendees have safety concerns or experience congestion (e.g., Queen Creek Rd, Chandler Heights Rd)



Public Meetings “Dot” Exercise Results

- Bicycle/Pedestrian
 - Most attendees are “interested but concerned” cyclists
 - Prefer off-street or separated/buffered facilities
 - Address gaps in bike lane network (e.g., Ray Rd, Arizona Ave)
 - Provide more signalized mid-block crossings
 - Divergent opinions on shared scooters/bikes





Public Meetings “Dot” Exercise Results

- Transit
 - Desired local destinations:
 - Downtown Chandler
 - Chandler Fashion Center
 - Fulton Ranch Towne Center
 - Employment corridors (e.g., Price Rd, US 60)
 - Intel Ocotillo Campus

 **Transportation Master Plan 2019 Update** Kimley  Horn 27



Public Meetings “Dot” Exercise Results

- Transit
 - Desired regional destinations:
 - Downtown Phoenix
 - Arizona State University, Tempe Campus/Downtown Tempe
 - Phoenix Sky Harbor International Airport
 - Arizona State University, Polytechnic Campus
 - Phoenix-Mesa Gateway Airport



 **Transportation Master Plan 2019 Update** Kimley  Horn 28

Public Meetings “Dot” Exercise Results

- Transit
 - Desired transit services:
 - High-capacity transit (light rail/streetcar/bus rapid transit)
 - Neighborhood circulators
 - Shared microtransit
 - Commuter rail



 **Transportation Master Plan 2019 Update** Kimley  Horn 29

PRELIMINARY ONLINE SURVEY RESULTS

 **Transportation Master Plan 2019 Update** Kimley  Horn 30



Survey Demographics 505 Responses

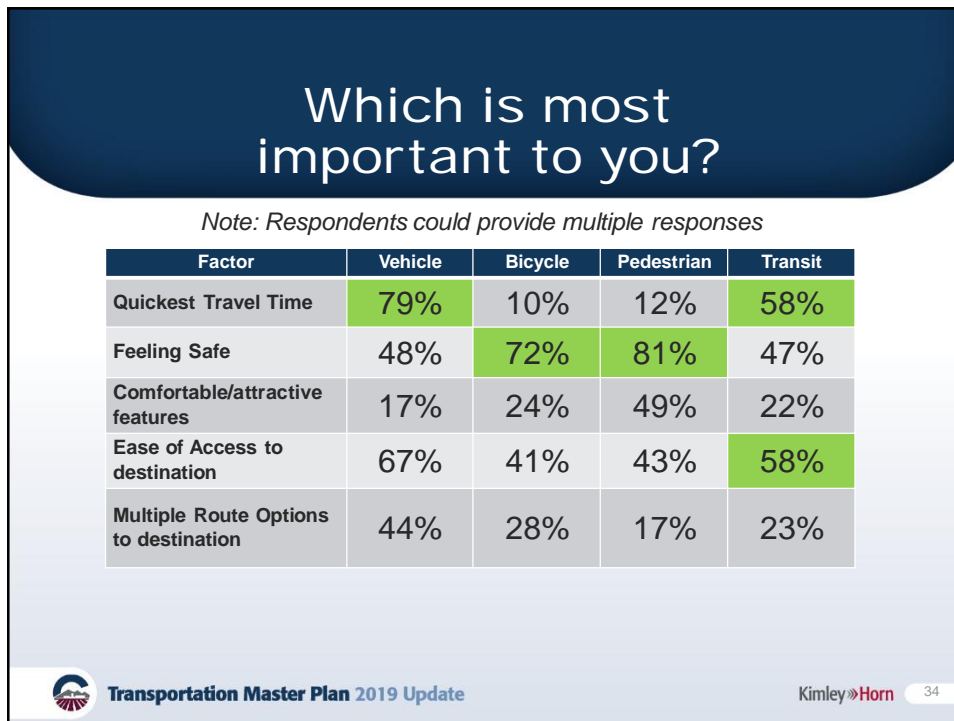
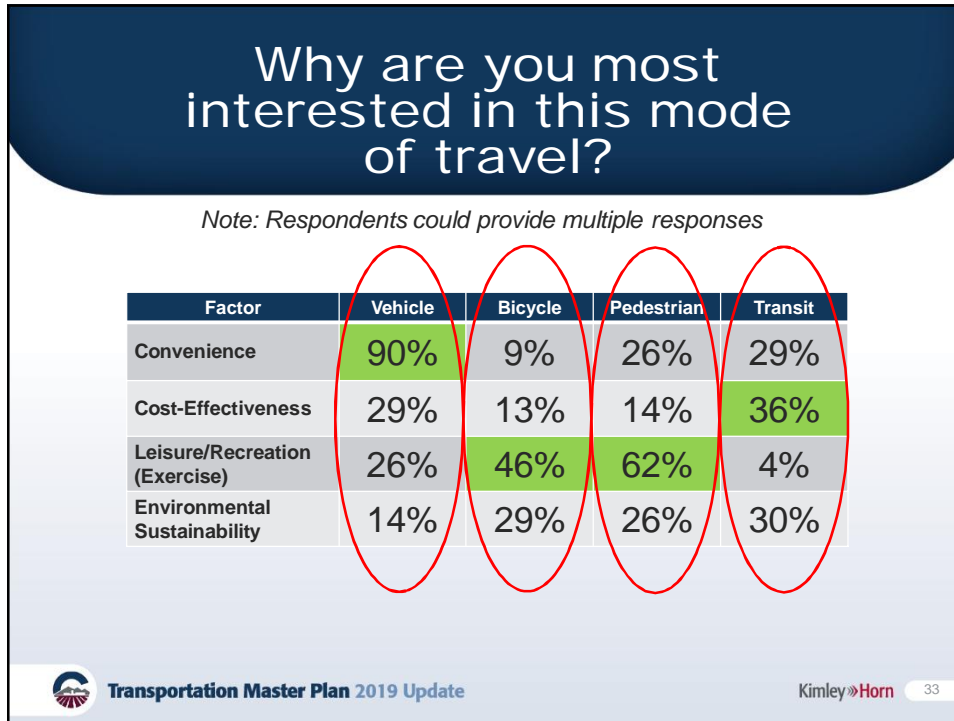
- 85% full-time Chandler residents
- 8% travel in Chandler regularly
- 5% work in Chandler
- 2% other
- Even distribution among residents for how long have lived in Chandler

 **Transportation Master Plan 2019 Update** Kimley  Horn 31

Where do you travel in Chandler?

96 (19%)	Loop 101	179 (36%)
Santan Loop 202		
86 (17%)	Arizona Avenue	135 (27%)


 **Transportation Master Plan 2019 Update** Kimley  Horn 32



To which destinations do you travel?

Note: Respondents could provide multiple responses


Factor	Vehicle	Bicycle	Pedestrian	Transit
Employment	67%	10%	5%	20%
Parks/Rec Facilities	46%	46%	61%	12%
Medical Facilities	33%	1%	2%	7%
Shopping Centers	84%	18%	39%	17%
Airport	22%	0%	0%	12%
Elementary/Secondary Schools	25%	6%	8%	3%
Colleges/Universities	6%	3%	2%	10%
Government Services	17%	3%	6%	9%

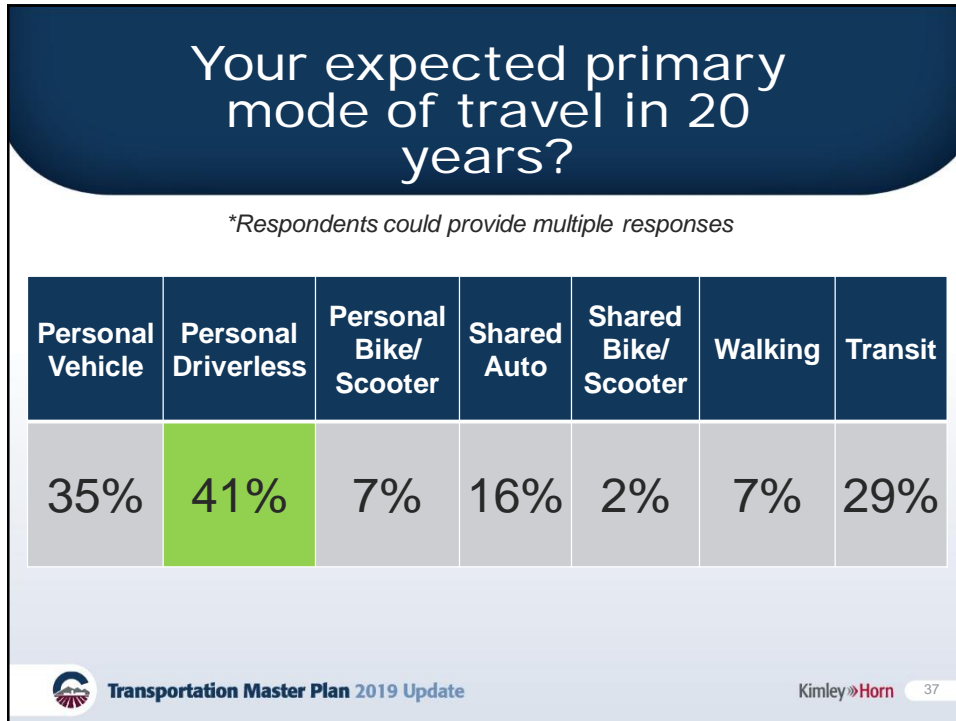

Transportation Master Plan 2019 Update
Kimley»Horn 35

Thoughts on transportation modes?

Note: Respondents could provide multiple responses

Mode of Travel	PRIMARY MODE of travel CURRENTLY	SECONDARY MODE of travel CURRENTLY	What should CITY INVEST IN MOST	What should CITY INVEST IN 2 nd MOST
Personal Vehicle	91%	12%	33%	22%
Personal Bicycle	2%	20%	9%	30%
Shared Auto	1%	23%		
Shared Bike/Scooter	0%	0%		
Walking	1%	24%	2%	13%
Transit	4%	8%	49%	25%



Transportation Master Plan 2019 Update
Kimley»Horn 36



Question #5

What did you find interesting, or what surprised you about the input received?

Do they differ from your beliefs for your representative group?


Transportation Master Plan 2019 Update
Kimley»Horn 38

Question #6

What transportation investments or improvements would benefit or impact our community in the future?



Community Engagement Next Steps

March: Stakeholder Workshop #1 – Input

April/May: Transportation Commission meeting

June/July: Stakeholder Workshop #2 –
Recommendations

August/September: Transportation Commission
meeting

August/September: Public Meeting #2



THANK YOU!

 **Keep Chandler Moving!**



Take our Transportation Survey!

KeepChandlerMoving.com

Survey closes March 31 – 505 responses so far

 **Transportation Master Plan 2019 Update** Kimley  Horn 41

**“DOT” BOARD EXERCISE
(OPTIONAL)**

 **Transportation Master Plan 2019 Update** Kimley  Horn 42



Transportation Master Plan 2019 Update

Stakeholder Workshop #2

OCTOBER 17, 2019 | CITY OF CHANDLER



Today's Agenda



- Project overview
- Survey final results
- Transportation Master Plan elements (Roadway, Bicycle/Pedestrian, Transit, Technology)
 - Community engagement input
 - Draft improvement recommendations
 - Stakeholder input
- What's next?



Transportation Master Plan 2019 Update

Kimley»Horn

2

Transportation Master Plan Schedule



Transportation Master Plan 2019 Update

Kimley»Horn

3

Transportation Master Plan Purpose

Leverage technology to provide a sustainable, multimodal transportation system for the community

- Enhance transportation system management and operations
- Promote alternative mode choices
- Provide connections between modes
- Apply new and emerging technologies
- Provide enhanced real-time travel information



Transportation Master Plan 2019 Update

Kimley»Horn

4

SURVEY FINAL RESULTS

5

Survey Demographics

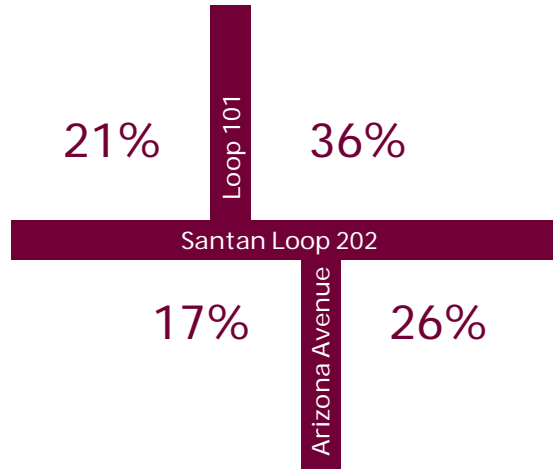
1,075
Responses

- 85% full-time Chandler residents
- 9% non-residents who work in Chandler
- 6% non-residents who travel in Chandler regularly
- Fairly even distribution for how long respondents have lived in Chandler



6

Where do you primarily travel in Chandler?



Why are you most interested in each mode of travel?

Benefit	Vehicle	Bicycle	Pedestrian	Transit
Convenience	✓✓✓	✓	✓	✓
Cost-Effectiveness	✓	✓	✓	✓✓
Leisure/Recreation (Exercise)	✓	✓✓	✓✓	✓
Environmental Sustainability	✓	✓	✓	✓
<i>Not Interested in Mode</i>	3%	25%	15%	24%

Note: Respondents could provide multiple responses



Which factors are most important to you?

Factor	Vehicle	Bicycle	Pedestrian	Transit
Quickest Travel Time	✓✓✓	✓	✓	✓✓
Feeling Safe	✓✓	✓✓✓	✓✓✓	✓✓
Comfortable/Attractive Features	✓	✓	✓✓	✓
Ease of Access to Destination	✓✓	✓✓	✓✓	✓✓
Multiple Route Options to Destination	✓✓	✓	✓	✓

Note: Respondents could provide multiple responses



To which destinations do you travel most?



- Vehicle:
 - Shopping centers
 - Employment



- Pedestrian:
 - Parks/recreational facilities
 - Shopping centers



- Bicycle:
 - Parks/recreational facilities
 - Shopping centers



- Transit:
 - Employment
 - Shopping centers

Note: Respondents could provide multiple responses



What is your current mode of travel?

Mode of Travel	Primary Mode	Secondary Mode
Personal Vehicle	92%	12%
Personal Bicycle	3%	20%
Shared Vehicle	1%	24%
Shared Bicycle/Scooter	0%	1%
Walking (Pedestrian)	1%	23%
Transit	2%	8%
None of the Above	1%	12%



In what mode of travel should the City invest?

Mode of Travel	Invest in Most	Invest in 2 nd Most
Automobile	35%	21%
Bicycle/Scooter	10%	30%
Walking (Pedestrian)	2%	12%
Transit	44%	27%
None of the Above	2%	4%
Other	7%	6%



What is your expected primary mode of travel in 20 years?

Personal Auto	Personal Driverless Auto	Personal Bike/ Scooter	Shared Auto	Shared Bike/ Scooter	Walking	Transit
33%	28%	5%	11%	1%	4%	18%

Public Survey Results *Stakeholder Workshop Input*

- 1) What did you find interesting about the survey results?
- 2) Was there anything you expected to see, but didn't?

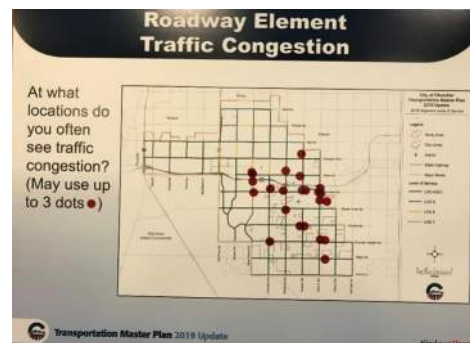


ROADWAY ELEMENT

15

Roadway Element *Input from Public Meetings*

- Traffic safety concerns
- Traffic congestion
- Improvements desired to mitigate issues

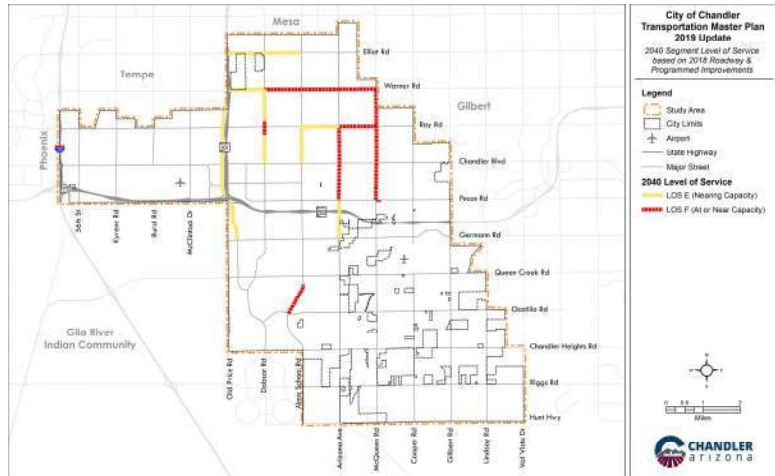


16

Roadway Element

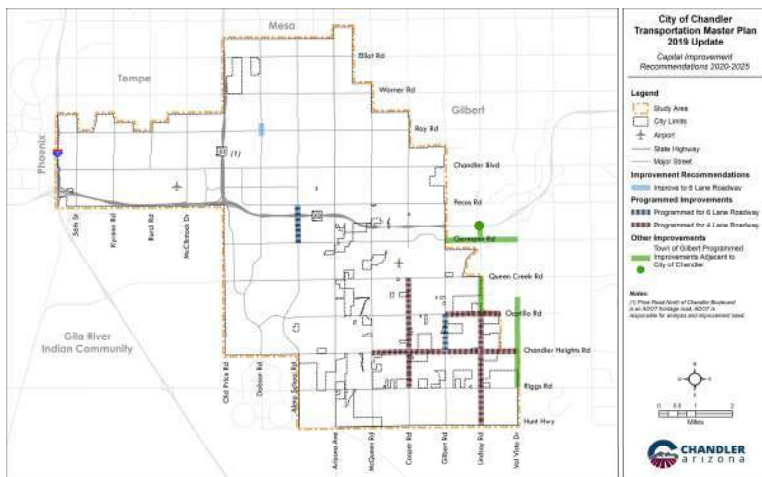
2040 Level of Service without Improvements

- Capacity constraints primarily north of Loop 202
- Programmed projects accounted for in analysis



Roadway Element

Draft Near-Term Recommendations (2020-2025)

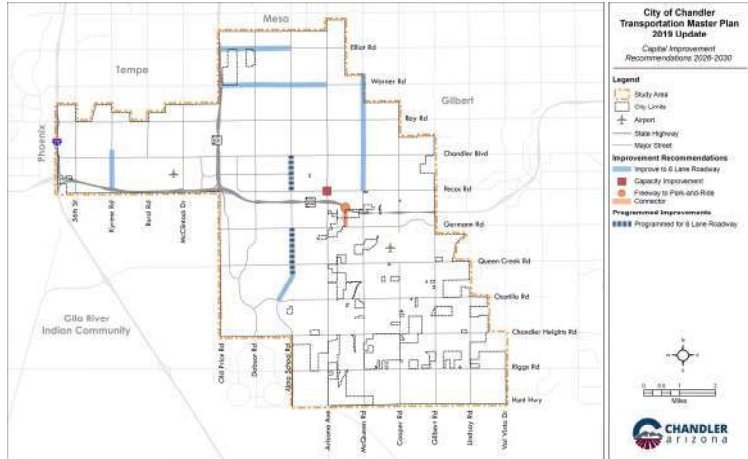


- Widen to 4 lanes (programmed):
 - Chandler Heights Rd
 - Ocotillo Rd
 - Cooper Rd
 - Lindsay Rd
- Widen to 6 lanes (programmed):
 - Alma School Rd
 - Gilbert Rd
- Widen to 6 lanes (new):
 - Dobson Rd
- Adjacent agency projects shown

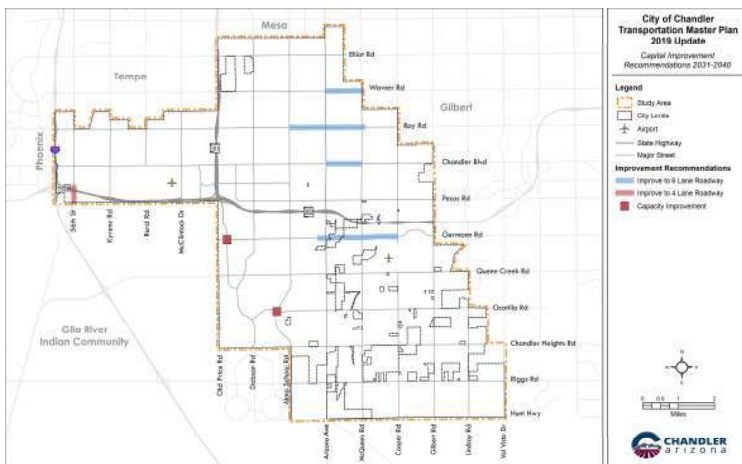


Roadway Element Draft Mid-Term Recommendations (2026-2030)

- Widen to 6 lanes (programmed):
 - Alma School Rd
- Widen to 6 lanes (new):
 - Elliot Rd
 - Warner Rd
 - Kyrene Rd
 - Alma School Rd
 - McQueen Rd
- Other improvements:
 - Pecos Rd/Arizona Ave
 - Freeway to Park-and-Ride Connector



Roadway Element Draft Long-Term Recommendations (2031-2040)



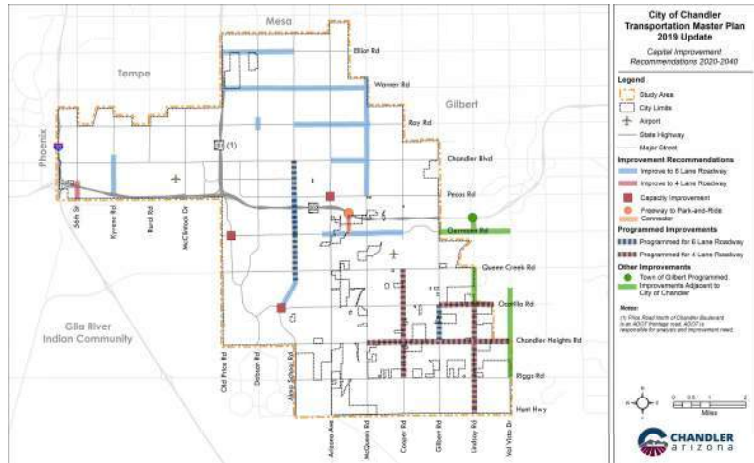
- Widen to 6 lanes:
 - Warner Rd
 - Ray Rd
 - Chandler Blvd
 - Germann Rd
- Widen to 4 lanes:
 - 56th St
- Capacity improvement:
 - Germann Rd/Price Rd
 - Ocotillo Rd/Alma School Rd



Roadway Element

Draft Recommendations Combined (2020-2040)

- Network of primarily 4-lane and 6-lane roads
- Several 4-lane roads with 6 lanes at intersections north of Loop 202 and east of Loop 101



Roadway Element

Stakeholder Workshop Input

- 1) Are there other Roadway investments or improvements that would benefit our community in the future?
- 2) Anything else we should consider related to Roadways?



BICYCLE/ PEDESTRIAN ELEMENT

23

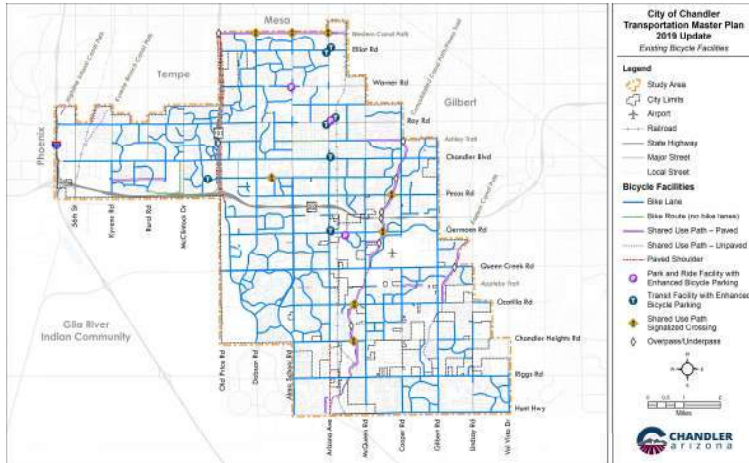
Bicycle/Pedestrian Element *Input from Public Meetings*

- Primarily “interested but concerned” cyclists
- Prefer off-street or separated/buffered facilities
- Address gaps in bike lane network
- Need more signalized mid-block crossings
- Differing opinions on shared scooters/bikes



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Bicycle/Pedestrian Element Existing Facilities

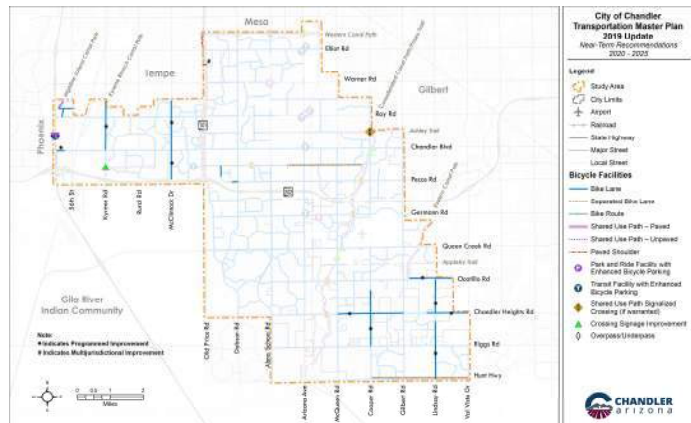


- Gaps in bike lane network
- Shared use path gaps or unpaved
- Several trail/path crossings of arterial roads are not signalized

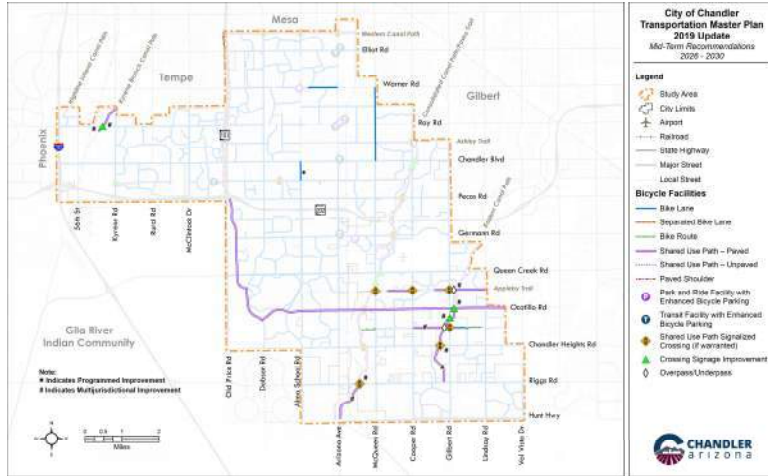


Bicycle/Pedestrian Element Draft Near-Term Recommendations (2020-2025)

- Programmed bike lanes:
 - Chandler Blvd
 - Kyrene Rd
 - McClintock Dr
 - Part of roadway widening
- On-street separated/buffered bike lanes:
 - Frye Rd
 - Hunt Hwy
- Paved shared use path:
 - Highline Canal
 - Ashley Trail (with signalized crossing)



Bicycle/Pedestrian Element Draft Mid-Term Recommendations (2026-2030)



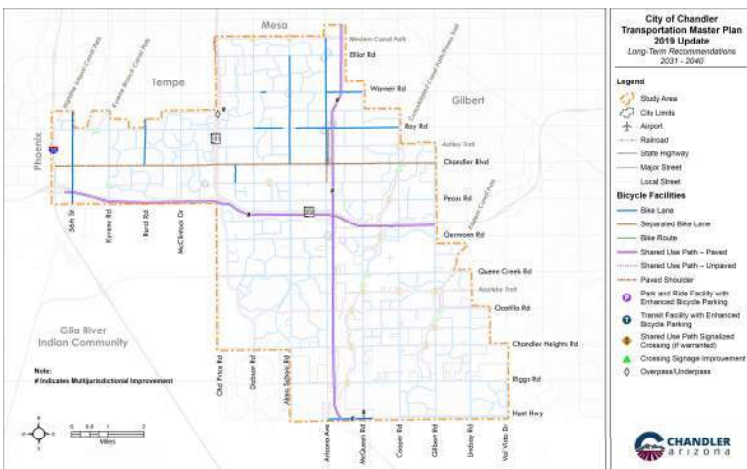
- Bike lanes (generally part of roadway widening)
- Paved shared use path:
 - Ocotillo Rd
 - Price Rd
 - Appleby Trail
 - Eastern Canal
 - Consolidated Canal
 - Kyrene Branch Canal
- Signalized path crossings
- Bridges over Eastern Canal



Transportation Master Plan 2019 Update



Bicycle/Pedestrian Element Draft Long-Term Recommendations (2031-2040)



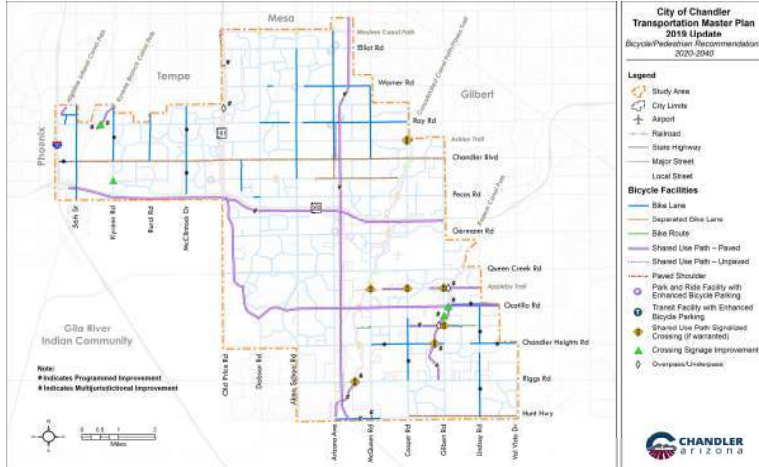
- Bike lanes (some are part of roadway widening)
- Paved shared use path:
 - Loop 202
 - Railroad spur
- Loop 101 overpass
- On-street separated/buffered bike lanes:
 - Chandler Blvd
 - Arizona Ave



Transportation Master Plan 2019 Update



Bicycle/Pedestrian Element *Draft Recommendations Combined (2020-2040)*



- Bike lanes on all arterials
- Shared use path signalized crossings at all arterial roads (if warranted)
- All shared use paths paved
- Interconnected network of on-street and off-street facilities



Bicycle/Pedestrian Element *Stakeholder Workshop Input*

- 1) Are there other Bicycle/Pedestrian investments or improvements that would benefit our community in the future?
- 2) Anything else we should consider related to Bicycles/Pedestrians?



TRANSIT ELEMENT

31

Transit Element *Input from Public Meetings*

Desired local destinations:

- Downtown Chandler
- Chandler Fashion Center
- Fulton Ranch Towne Center
- Employment corridors (e.g., Price Rd, US 60)
- Intel Ocotillo Campus



Transit Element *Input from Public Meetings*



Desired regional destinations:

- Downtown Phoenix
- Arizona State University, Tempe Campus/Downtown Tempe
- Phoenix Sky Harbor International Airport
- Arizona State University, Polytechnic Campus
- Phoenix-Mesa Gateway Airport



Transit Element *Input from Public Meetings*

Desired transit services:

- High-capacity transit (light rail/streetcar/bus rapid transit)
- Neighborhood circulators
- Commuter rail
- Shared microtransit/flexible transit service



Transit Element *Examples of Flexible Transit Services*

- Provides transit-like service but on a smaller, more flexible scale
- Vehicles can range from cars to vans to shuttle buses
- Provides first mile/last mile connectivity
- On-demand or pop-up stops
- Could be autonomous



*FlexRide
(Denver)*



*On-Demand Shuttle Service
(Austin, Seattle, and
New York City)*



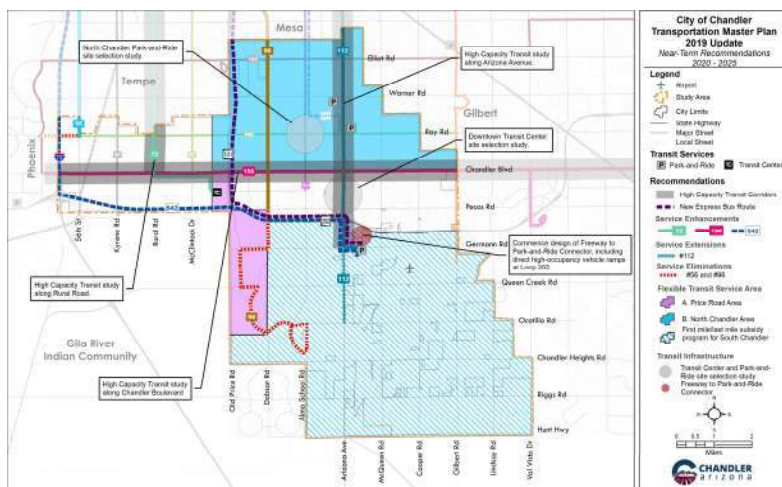
*Olli
Sacramento State Pilot Program*



*Waymo
Valley Metro Pilot Program
Early Ride Program*



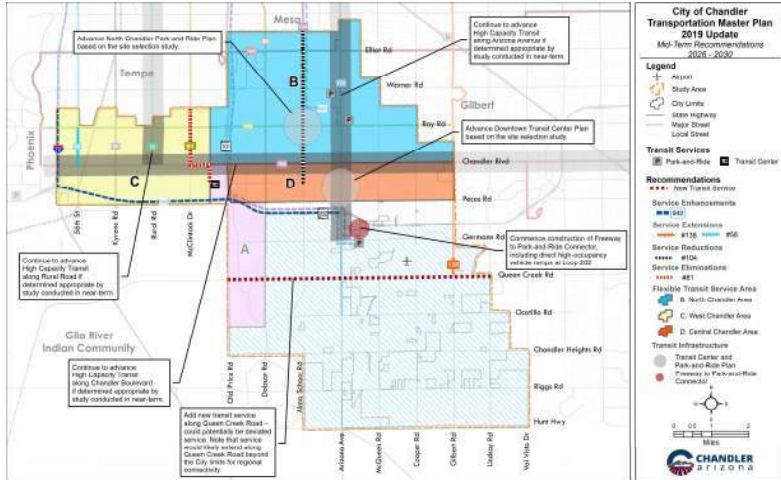
Transit Element *Draft Near-Term Recommendations (2020-2025)*



- Local bus service refinements
- New express bus route
- Flexible transit service areas:
 - Price Road (pilot)
 - North Chandler (study)
- First mile/last mile subsidy program in South Chandler
- Site selection and high capacity transit studies



Transit Element Draft Mid-Term Recommendations (2026-2030)



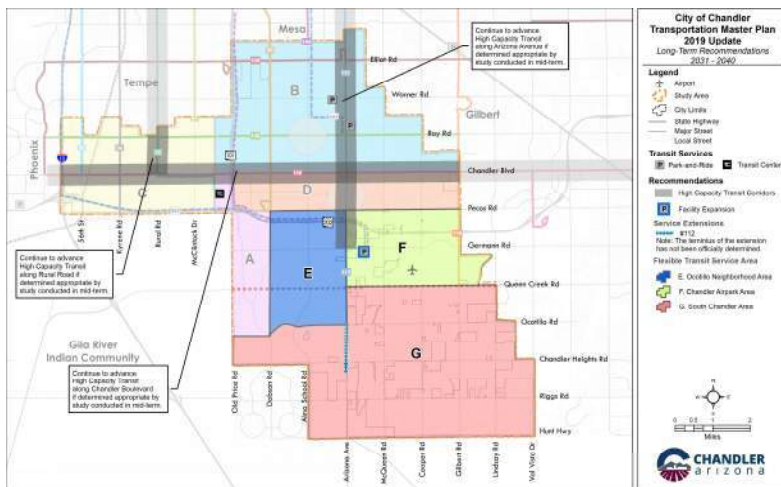
- Local bus service refinements
- New service on Queen Creek Rd
- Freeway to park-and-ride connector
- Flexible transit service areas:
 - North, West, and East Chandler
- Construct transit center and park-and-ride



Transportation Master Plan 2019 Update



Transit Element Draft Long-Term Recommendations (2031-2040)



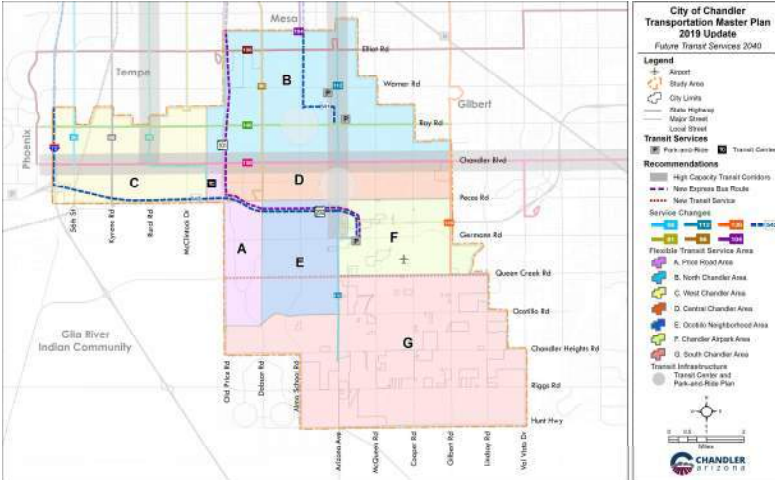
- Flexible transit service areas:
 - Ocotillo
 - Chandler Airpark
 - South Chandler
- High capacity transit corridors:
 - Arizona Ave
 - Chandler Blvd
 - Rural Rd



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Transit Element *Draft Recommendations Combined (2020-2040)*



- Flexible transit service covers most of Chandler
- Interconnected hierarchy of routes
 - High capacity transit
 - Express bus
 - Local bus
- New/expanded transit centers and park-and-ride lots

Transit Element *Stakeholder Workshop Input*

- 1) Are there other Transit investments or improvements that would benefit our community in the future?
- 2) Anything else we should consider related to Transit?



LEVERAGING TECHNOLOGY

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Leveraging Technology *Input from Technology Expert Interviews*

- Provide mode choices
- Need flexibility to keep up with changing technology
- Autonomous/connected vehicles are 20+ years away from large-scale implementation
- Maintain/preserve existing infrastructure
- Collection/sharing of travel data is key
- Strategic public-private partnerships are critical
- City's role is to encourage/implement technology for benefit of residents

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Leveraging Technology *Potential Transportation Technology Tools*

- City fiber network
- Wireless communications
- City traffic cameras
- Advanced traffic signal controls
- Travel information
- Ride share apps
- Shared micromobility devices (e.g., e-bikes, scooters)
- Flexible transit apps
- Autonomous/connected vehicles



Leveraging Technology *Mobility Hubs – Sample Concept*



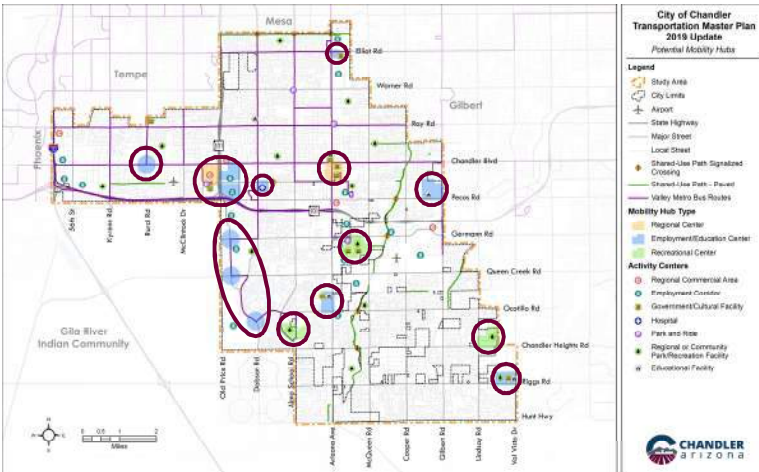
Source: SANDAG

Sample mobility hub concept:

- Multiple transit routes
- Seating/shade
- Real-time travel info with interactive kiosks
- Bike parking
- Car-share parking
- Rideshare curb space
- Wayfinding
- Lockers



Leveraging Technology Draft Recommendations (2020-2040)



- Physical/virtual mobility hubs:
 - Traveler information
 - Accommodation for all modes
 - Traveler amenities
- Technology strategies:
 - Focus on people and data
 - Flexible policies
 - Partner with private sector

Leveraging Technology Draft Recommendations (2020-2040)

- Near-Term (2020-2025):
 - Develop an Intelligent Transportation System (ITS) Strategic Plan
- Mid-Term (2026-2030) and Long-Term (2031-2040):
 - Develop and construct physical and virtual mobility hubs
- Ongoing Maintenance:
 - Roadway signs/pavement markings critical for autonomous vehicles
 - City's ITS devices (e.g., traffic signals, cameras, fiber)

Leveraging Technology *Stakeholder Workshop Input*

- 1) Are there other Technology investments or improvements that would benefit our community in the future?
- 2) Anything else we should consider related to Technology?



What's Next?

- Oct. 24, 2019: Public open house review of draft recommendations
- Nov. 6, 2019: Transportation Commission review of draft recommendations and stakeholder/public input
- Late 2019: Transportation Master Plan Final Report submittal
- Early 2020: City Council consideration for approval of Transportation Master Plan





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Transportation Master Plan 2019 Update





2019 Transportation Master Plan Update Stakeholder Workshop #1 ~ March 7, 2019

Summary of the March 7, 2019 Chandler 2019 Transportation Master Plan Update Stakeholder Workshop #1, held from 3:30 to 5:30 pm, at Tumbleweed Recreation Center, Cotton Room 745 E. Germann Road, Chandler.

Stakeholder Workshop Members Present:

- Steve Hewitt, Chandler Unified School District Transportation Director
- Dr. Greg Peterson, Chandler-Gilbert Community College President
- David Moss, Chandler Fashion Center Property Manager
- Mary Murphy Bessler, Downtown Chandler Community Partnership Director
- Don Azlin, Mission Valley Neighborhood
- Judy Ramos, Thunderbird Park Neighborhood
- Debi Dorman, Pepperwood Neighborhood
- Michelle Cavner, Paseo Trail North Neighborhood
- Brian Fox, Chamber of Commerce Government Relations & Public Policy
- Chad Poorman, Chamber of Commerce
- Renee Levin, Intel Community Affairs Manager
- Kathy Schiller, Gilbert Crossroads Business Center Property Manager
- Michael Pollack, Pollack Investments
- Kerry White, Arizona Bicycle Club President
- Brandee Lepak, Global Bikes Chandler- MeetUp Group
- Michael Carr, Arizona Bicycle Club Ride Coordinator
- Billy Parker, Chandler/Gilbert Arc
- Steve Backman, Van Trust RE
- Heather Ford, PayPal
- Jeff Leathers, PayPal
- Priscilla Acero, AZCEND
- Shauna Fellenz, AZCEND

WELCOME & INTRODUCTIONS

Teresa Makinen, Stakeholder Engagement for the Chandler Transportation Master Plan Project Team, welcomed the participants and reviewed the agenda for the meeting. She informed the participants that many of the project team and City of Chandler staff are here today primarily to listen to your thoughts related to the future of transportation in Chandler. City staff and project team members then introduced themselves.

She explained that the stakeholders here today were selected because they are “transportation influencers” in Chandler. For example, they are large employers, major destinations, large neighborhoods, developers, or educational institutions.

As part of the introductions, Teresa asked each of the participants to think about the following question and went around the room for each participant to introduce themselves and explain their response.

QUESTION 1: IF YOU COULD SAY ONE THING ABOUT TRANSPORTATION IN CHANDLER TODAY, WHAT WOULD THAT BE?

Participants responded to Question 1 while introducing themselves. Response varied but common talking points were: busy, congested, freeway connected, organized, more options needed, innovative, fluid, massive, heavy traffic, and busy but organized.

- Busy. Needs improvement on weekends.
- Accessible in some areas/times
- Great! Nice roads, safe bike routes, nice canals
- Congestion
- Congested
- More options
- Organized
- Wide street lanes and bike lanes + busy streets
- Freeway connected
- 0 [zero] light rail
- Fluid
- Busy but organized
- Strong roadway infrastructure
- Pretty well organized
- Nice big roads
- Innovative
- Growing as Chandler grows
- Slightly congested
- Massive
- Heavy traffic

2019 TRANSPORTATION MASTER PLAN UPDATE PRESENTATION

Teresa Makinen the introduced Michael Grandy, Project Manager for the Chandler Transportation Master Plan Project Team, to present information on the objectives of the master plan update, the schedule and plan components. For each of the components, Michael presented the existing conditions, and after each component Teresa Makinen offered a driving question related to the topic. Each participant was asked to briefly write down their thoughts on a response to the question and Teresa then facilitated a discussion related to the topic and responses.

Discussion points documented during the meeting are provided below and following these notes are information from the participants' written comments.

QUESTION 2: RELATED SPECIFICALLY TO ROADWAY ELEMENTS, WHAT DOES THE PROJECT TEAM NEED TO KNOW?

- There's been an increase in accidents at One Payment Way as well as more accidents at Dobson/Ocotillo with unprotected left.
- Lack of crosswalks causes tons of people to jaywalk at Ray Road, Arizona Avenue to the Loop 101.
- I believe that the "Do Not Cross" with a countdown at intersections is helpful and can help save lives and improve traffic efficiency.
- The traffic here is organized way better than the traffic in the north or west valley.
- Crossing the street for cyclists around Tumbleweed is sketchy and is very scary with the current speed limits and speeding cars.
- Loop 101 and Elliot/Alma School with the third lane at the intersection, people speed to pass the other cars. I'm not sure what could be done but it is very unsafe and causes traffic to bottle neck.

- Alma School/Dobson doesn't go to a blinking/flashing green arrow, you have to wait and that should be changed.
- Alma School/Elliott, Alma School/Warner, Alma School/Chandler Boulevard and other intersections have all been rebuilt within the last ten years. The City did tons of research before the intersections were reconstructed and determined that what we currently have would be the best system.
- What is the City's rationale to choose when a turn signal is before or after a red light, my preference is after the red light.

QUESTION 3: RELATED SPECIFICALLY TO BICYCLE AND PEDESTRIAN ELEMENTS, WHAT DOES THE PROJECT TEAM NEED TO KNOW?

- Ocotillo/McQueen with Paseo Road is two lanes with a bike lane and then the bike lane suddenly stops. We need signage to drivers that they need to share the lanes. Bicyclists can legally take the full lane or share the lane with vehicles.
- Often when bike lanes are coming up on an intersection the bike lane disappears, and this puts the bicyclist in danger as cars become very aggressive and begin to creep over.
- It would be a good idea to have bike lanes with completed sidewalks to a protected bike lane.
- Pedestrians with wheel chairs struggle in areas where sidewalks have those bumps as it becomes difficult to wheel through. Also sometimes access to businesses and medical facilities do not have automatic doors with a button for wheel chair users. Wheelchair ramps are often far from the front steps or front entrance of these places.
- Does PayPal or anyone else here have the percentage of people who actually bike? We need to help with traffic congestion, does anyone here encourage employees to ride their bikes to work? –
 - Representatives of PayPal responded: We take an annual survey but we do not have any actual data on how many bike. However, we believe it is because there are no bike lanes, people want to ride their bikes but feel they cannot without the bike lanes.
- It's important to note that with the construction that has been taking place in the area [Price Road], that many people feel unsafe to even walk because they would be walking right through an active construction site. People would walk and ride their bikes if they felt safe.
- Why not put scooters near the bus stops? It would be inexpensive and effective. It is not practical to have scooters that are able to go to every single house, were built out not up.
- Bike lanes with parallel parking, bike lanes are on the exterior and seems to be unsafe. Bike lanes should be close to sidewalk not closer to the road.
 - A participant responded: I disagree with that thought, there would be even more obstacles for bicyclist if you were to do that. We need behavioral training for drivers such as opening a car door with your opposite hand to force you to look at what's behind you before opening the door, things like that will keep bicyclists safer.
- With all of the current and upcoming construction it would be good to have a walkability study. We could also look into areas with alleys that could be walkable. The city's alleys never get used, except for maybe the occasional trash pickup, why don't we look at using the unused alleys as a bike path for scooters and walkers as well? Let's spend money where it won't hurt our existing roadways.
- It's also worth noting that gravel cycling is very popular, bikers like dirt, the City does not need to pave everything.

QUESTION 4: RELATED SPECIFICALLY TO TRANSIT ELEMENTS, WHAT DOES THE PROJECT TEAM NEED TO KNOW?

- We [at CGCC] don't have students who use a lot of public transit. Our students are mainly looking toward rideshares. Right now the messaging is how and do you individualize. However currently, we do not have anything to encourage public transit. We ask our students yearly, I do not know the percentage off hand but I know that it is very small [that use public transit].
- We [at CUSD] transport roughly 12,000 students per day and that transportation can take up to an hour and ten minutes for certain students depending on where they live. We are currently trying to make our bus routes smaller and have supervised depot areas with scanners that will be able to track students via GPS to insure that they get there safely. We are currently 1-2 years away from this. We have looked into other options, but we are decades away from autonomous buses.
- "The Last Mile" is a new thing trying to figure out once transit riders get to their stop, then how can they go that "last mile" to their destination. Figuring that out is the key.
- A lot of our employees [at PayPal] take the bus and the nearest bus stop is at Chandler Fashion Mall. We really need more bus stops and we need the buses to run even after 9pm.
- Over the last few years Lyft/Uber have really caught on and taken off. There's another service called Get Around, it will allow a person to rent a car at any location (similar to the scooters and bikes) and then leave the car at any location. These are all things we need to consider when we talk about transit.
- Having alternative choices work better together. Buses with express routes would really help.
- High capacity corridors doesn't mention McClintock I know that's not in Chandler but it needs something.

QUESTION 5: WHAT DID YOU FIND INTERESTING, OR WHAT SURPRISED YOU ABOUT THE INPUT FROM THE PUBLIC MEETINGS AND ON-LINE SURVEYS TO DATE? DO THEY DIFFER FROM YOUR BELIEFS FOR YOUR REPRESENTATIVE GROUP?

- To me it didn't seem that questions were phrased very well. The questions didn't lead the participant to fully realize what could potentially be possible. It might ask, if there were bike lanes everywhere, would you travel by bike, as if that is the future condition, then what would the preference be?
- If we look at Light Rail, it takes about 1-3% of cars off the road by people using it; that is still not removing very many cars from the road. The 500 people who took the survey do not accurately represent the right people. You cannot take away lanes for light rail, and we need to think about the welfare of all the people in Chandler, not the small percentage who may use that transit. What percentage of the total population would actually use light rail?
- We seem to be missing the senior group in this survey, they always need transportation for medical checkups and emergencies. I know that there are already options available, but it is still a need. Is there an opportunity in this study to look at that? Or could we phrase the questions differently to help reflect that option?
- I would take the bus because I want to reduce my carbon footprint in the world however, I will not ride the bus if it takes me three hours to get to work. That is why we need more direct bus routes.
- Based on how the market is trending, the younger generation don't like to drive, they are putting off getting their license because the cost of insurance is so high and because they don't want to stop using their smart phones.

- Trends and accessibility of where you want it to be vary on city to city. The more spread out the city is the more of a different experience it becomes.
- I cannot necessarily see light rail in residential areas but maybe near some of the strip malls.
- We also need to keep in mind that we have an intense heat in Arizona that most cities don't deal with. We cannot realistically solve this problem by having air conditioning at every bus stop. The heat is going to deter people from walking, riding bikes, taking the bus.
- We [at Intel] hire people from all over the world and often they do not have a license and we have to pay for them to learn how to drive. It would be nice to have other options of transportation for these employees.
- Realistically will any of this public transit really work when it is so hot? Specifically, from May through September?

QUESTION 6: WHAT TRANSPORTATION INVESTMENTS OR IMPROVEMENTS WOULD BENEFIT OR IMPACT OUR COMMUNITY IN THE FUTURE?

- Autonomous vehicles are the future, we need to focus on how we can utilize it.
- If we have money to spend it would be nice to spend it on nice buses and bus areas for schools, we should spend it on something that 90% could benefit from not just the 2%.
- Cars have advanced technology and as more cars get these technological upgrades, roads will become safer. Not sure if we can get federal funding to help with this advancement but it's an idea.
- The 2% might grow if you make protected bike lanes, maybe the City should provide incentives to ride bikes. Are we building for the 90% or are we building for opportunity?
- Santa Clara County traffic is terrible, that is where Arizona is headed.
- We should look at train lines. We need to go up.
- Look at rideshare partnerships between cities
- Think about spaces differently, business areas and residential areas need different services
- Corporate rideshare partnerships
- 47.3% of Seattle are by public transportation
- More bike infrastructure - small percentage of bikers are women because they feel unsafe, this number would increase if it was safer.
- We still need to invest in roads and arterial streets and continue to do so.

CLOSING COMMENTS & ADJOURN

Teresa Makinen explained that there will be one more Stakeholder Workshop probably sometime in July or August and, at that time there will be an opportunity to look at the draft plan recommendations prior to the public meeting. She then thanked the attendees for their time and active participation, and the meeting ended.

ATTACHMENT 1
STAKEHOLDER COMMENT CARDS

The following are the participant data cards with responses respective to each of the six questions posed during the workshop. When no card was provided for a question, it states “No comment”:

Priscilla Acero, AZCEND

1. Busy. Needs Improvement on weekends.
2. Congestion roadway – accidents on Gilbert/Germann
3. Make bike lanes wider. When driving by a bike sometimes need to move into other lane and can cause accidents.
4. Scooters/Bikes - not everyone has a debit card to utilize them (homeless clients)
5. We need to move transport up in the air
6. Transit - more bus stops, longer hours

Shawna Fellenz, AZCEND

1. Accessible in some areas/times
2. Congestion - due to traffic and/or lack of infrastructure in newly developed areas
3. Ensure safe, good number of crossings
4. Limited hours for many - Not always efficient- Takes a lot of time/transfers
5. Make public transportation accessible and efficient. Not everyone can afford a car so we shouldn't make decisions based on privileges some don't have.
6. No comment

Don Azlin, Mission Valley Neighborhood

1. Busy but organized
2. Better than west side
3. Light turns to blinking at canal crossing. Scooters should not be on road- dangerous.
4. Spend money for highest percentage of people benefit.
5. No comment
6. No comment

Steve Backman, Van Trust RE

1. Freeway Connected
2. Good system of freeway/arterials but congestion is a future concern (current at some areas).
3. Best in valley planning, but gaps exist. Focus money on core (Mall – Price - Downtown)
4. Think of “community” ride share hubs. Downtown, Mall, Price, Intel, Bus Stops (city subsidized?)
5. No comment
6. Micro Rideshare lots at key locations with city/developer/corporate subsidy...

Kathy Schiller, Gilbert Crossroads Business Center

1. Fluid
2. Maintenance of roadways needs to be ongoing
3. Countdown pedestrian crossing signals
4. No comment
5. Questions are not encompassing to discuss the other side. Seemed one sided.
6. Bus rapid transit. Close the gaps of non-serviced areas to create desirable transit alternatives.

Brandee Lepak, Chandler Global Bikes / MeetUp Group

1. Great! Nice roads, Safe bike routes, Nice canals
2. Safe crossings for cyclists. Alma School congestion
3. Safe crossing canals. Right hand turns. Bike lane [striped] helps us not get hit. Left turn arrow long enough to get through. You don't have to pave canals, we [cyclists] like dirt.
4. The Last Mile - shared transport helps people on the last mile.
5. Fill the gaps in bike lanes. Especially on Ray Road.
6. Bike Routes off the road

Michael Pollack, Pollack Investments

1. Congestion
2. No comment
3. Park scooters at bus stops
4. What percentage of people use public transportation in Chandler NOW?! What percentage of people would you expect to use public transportation if made available?
5. AZ Ave. AZ Heat. Density. Electric Cars TODAY. Ride Share
6. No comment

Jeff Leathers, PayPal

1. Congested
2. Need sidewalks on Price Corridor. Also- bike lanes as well.
3. Need bike lanes all the way through Price Road past Germann.
4. Shuttle buses from Chandler Fashion Mall through Price Road. Shuttle buses for remote locations Maricopa, Queen Creek.
5. Ride share partnership between cities. Chandler, Gilbert, Queen Creek, San Tan Valley.
6. No comment

Mary Murphy Bessler, Downtown Chandler Community Partnership

1. More Options
2. Lower mph downtown
3. Separated bike lanes on major arterials. Side streets Downtown from new residential is being built. Downtown needs a walkability study. Some areas disconnected.
4. Connect to light rail or future street car down Price to employment areas - PayPal/Intel. Tempe, Mesa, Chandler funded - many primary employers connected to this roadway- Help 101 congestion.
5. No comment
6. Transit down Price. Circulation in Downtown.

Kerry White, Arizona Bicycle Club

1. Organized
2. Impact of self- driving cars on infrastructure in 1-10 years: ST-0 [short term]; MID Term --+1--+3; Long Term +5-7
3. Share the lane when bike lane ends, dashed lines at intersection - 3ft signs, or take full lane
4. More alternatives as population grows and roads cannot expand further. Light Rail – Autonomous vehicles – Car pool/sharing
5. Surprise - spending 2nd on bicycles
6. 1. Light Rail 2. Express bus routes (more and wider operating hours and destinations) 3. Combined bike route lanes with all new projects

Michael Carr, Arizona Bicycle Club

1. Wide street lanes and bike lanes + busy streets
2. Can vehicles, cyclists and pedestrians co-exist safely on a highway. Are there functions/safe for each mode?
3. How to manage bike lanes at intersections - signage? Allow cyclists to take lane if bike lane ends.
4. Is the transit system really connected to where people want to go? Availability, convenience.
5. Did more recreational cyclists' responses ever shadow responses from more "functional" cyclists (people who use) who would ride if it were safer and more accessible to businesses?
6. Driver education improved (not Chandler's responsibility) Making options available for alternatives. If it's available - people will use it.

Michelle Cavner, Paseo Trail North Neighborhood

1. 0 Light Rail
2. Prefer lagging turn signal - seems less likely for accidents. Long term vs. short term (two-lane and later need fourth lane) strategy for congestion.
3. Protected lanes, flashing lights for crosswalks
4. Consider Gilbert Road as a future high-capacity corridor. Construction and easy freeway access.
5. The results aligned with the thought of personalization. Is biking and walking really an option during May-September?
6. More options for express transit

Judy Ramos, Thunderbird Park Neighborhood

1. No comment
2. Crosswalks along Ray Rd between AZ Ave to the 101 Hwy, lots of jay walkers and accidents especially near Ray and Iowa, and Ray and Central and Arrowhead. Also, issues with residential intersections not aligning. Light Rail along Price corridor would connect Tempe, Chandler and Mesa. Encourage and advance technology especially with driverless cars and provide a driverless car ridership program for employees to use.
3. Remove parking from bike lanes. Place bike lane closer to the sidewalk. Remove parallel parking where there are bike lanes. Place bike lane closer to the sidewalk. Remove parallel parking where there are bike lanes. Safety first. Separate bike lanes from pedestrians and vehicles. Or, make larger sidewalks with a gap for cycles.
4. There is low ridership on buses but there needs to be more public transport for seniors or those with disabilities. Bus service should be coordinated with senior living facilities and shopping centers, malls and pharmacies.
5. We need to look into the needs of seniors because there is a need for them to get to the pharmacy or medical facility.
6. Look at east west arterial streets for improvements and safety.

Dr. Greg Peterson, Chandler-Gilbert Community College

1. Strong roadway infrastructure
2. Usage will continue to grow with self-driving
3. No comment
4. No direct connection to CGCC Pecos Campus. Thought about individualism in transit continuing (self-driving, scooters)
5. No comment
6. High capacity, transit is key, employment hubs

Renee Levin, Intel

1. Pretty well organized
2. Need protected left light at Ocotillo/Dobson. Traffic flows well in most areas. No bike lane on Rural from Ray to Chandler Blvd. Consistency at intersections would reduce confusion. All lagging or leading left (prefer leading left).
3. Signage or markings on Rural between Ray and Chandler Blvd same on McClintock.
4. Love the bus expansion to Ray Rd (although I haven't used it). Bus pull-outs are great! Put them everywhere.
5. Need multi-people, high density options to move people on Price corridor.
6. Driver-assist technology will help prevent accidents and make roads safer. Help cars get automated driver. Assisted systems!

Brian Fox, Chandler Chamber of Commerce

1. Nice Big Roads
2. No Comment
3. Bike lanes seem to work best on streets where they go the average speed limit
4. I like the ECAB system and would like to see something like that expanded in specific localities.
5. No comment
6. No comment

Chad Poorman, Chandler Chamber of Commerce

1. Innovative
2. Areas for improvement via data and community input
3. Business community wants more and improved bike lanes
4. Area south of 202 underserved by transit, businesses seek increased access.
5. No comment
6. No comment

Billy Parker, Chandler/Gilbert Arc

1. Growing as Chandler grows
2. Elliot and 101 / Elliot and Alma - People racing past others using right turn lane
3. Protected bike lanes (although already quite good)
4. Bus connections – Light Rail - Alternative TR: ride share, car share, Get-Around, incentivizing.
5. No comment
6. Green Belts, wildlife crossings, less asphalt, more urban wildlife. Car sharing/technology. Although #6 is not specific to transportation I feel our infrastructure should be considered with regard to transportation modes, streets, etc. as related to attraction events and desirability of community.

Steve Hewitt, Chandler Unified School District

1. Massive
2. Safe for students, bikes and walkers
3. Not all are wide enough
4. Technology and school bus depots
5. Only 3% listed transit as means to school, we actually transport about 10%
6. Autonomous. More countdown on crosswalks. Chandler Transport App

Debi Dorman, Pepperwood Neighborhood

1. Slightly congested
2. 1-Tremendous influx of apartments - plans to accommodate increased population - Chandler Blvd and Loz Feliz. 2- Some areas don't have left turn signals, Chandler Blvd and Los Feliz.
3. Inclines - some are bumpy, are they going away? Difficult for wheel chairs and walkers. More inclines needed. ADA friendly entrances.
4. 1-McClintock another bus route for ASU students. 2- Late classes, bus route doesn't go to regular destination 3-High capacity McClintock ASU and Mall, Tempe Market Place
5. High profile employers Intel, PayPal - consider on. Increase in assisted living facilities, elderly population growing transit/buses - less cars. Increase mobile doctors and services like hair dressers.
6. Transportation investments talk about corporate/ride sharing partnerships. Need to consider assisted living facility partnerships.

David Moss, Chandler Fashion Center

1. No comment
2. No comment
3. Consider bicycle turn lanes at major intersections? Shared elements: forced corral locations, speed limit for sidewalks for scooters, no scooters on sidewalk? What constitutes litter for left vehicles?
4. Autonomous vehicles (AV) corrals. Impact (reduction) of services as AV services ramp up. Add Price to Express corridor units. Connect major campuses.
5. The disconnect the public has with amenities and expectations. Like autonomous vehicles but no investment. Thought of walking being a focus in a sprawled city.
6. East/West arterial traffic routes (Price corridor jobs). Auto. Vehicle corrals, etc.

Heather Ford, PayPal

1. Heavy traffic
2. Many accidents at Price and One Payment Way due to no left turn signal
3. Complete sidewalks and bike lanes all the way through Price and Germann; like the protected bike lane idea.
4. More bus stops along Price corridor. Express bus from Price Light Rail in Mesa to the 101 and 202 part of Chandler. Shuttle bus Chandler Fashion Mall through Price Road. Shuttle buses for remote locations (e.g., Maricopa. Queen Creek).
5. 20 years = Personal driverless not matching where to invest funding.
6. 1- Expand Light Rail in corporate areas. 2. Expand alternative modes, scooter rentals, bicycle rentals, car pool network/ride shares, Uber/Lyft corporate discounts.



Transportation Master Plan 2019 Update Stakeholder Workshop #2 ~ October 17, 2019

Summary of the October 17, 2019 City of Chandler Transportation Master Plan 2019 Update Stakeholder Workshop #2, held from 3-5 p.m., at Tumbleweed Recreation Center, Cotton Room, 745 E. Germann Road, Chandler.

Stakeholder Workshop Members Present:

- Steve Hewitt, Chandler Unified School District
- David Moss, Chandler Mall
- Debi Dorman, Pepperwood Neighborhood
- Terri Kimble, Chamber of Commerce
- Brian Fox, Chamber of Commerce
- Vicki Gruwell, Intel
- Clayton Davis, Paypal
- Dino Felix, Bashas'
- Kevin Craig, Phoenix Metro Bicycle Club
- Jenna Borcharding, VanTrust

WELCOME & INTRODUCTIONS

Teresa Makinen, Stakeholder Engagement for the Chandler Transportation Master Plan Project Team, welcomed the participants and reviewed the agenda for the meeting. She informed the participants that many of the project team and City of Chandler staff are here today primarily to listen to stakeholder thoughts related to the information that will be provided today. City staff and project team members then introduced themselves.

Teresa then reviewed the results of the on-line transportation survey and asked participants what they found interesting regarding the results of the survey, with the following responses:

- I think it's interesting that people believe they'll have their own personal driverless car as their primary vehicle.
- Motorized, or e-bikes are very popular right now; people are looking at them as a cheaper alternative to having a second car. An e-bike is not a motorcycle but a bike with an electric battery that allows you to pedal longer and faster without exerting as much energy.

TRANSPORTATION MASTER PLAN PRESENTATION

Michael Grandy, Kimley-Horn, then presented information on the various components of the Transportation Master Plan Draft Final Report near, mid and long-term recommendations. During each component (Roadway, Bicycle/Pedestrian, Transit, and Technology), participants were asked to discuss and provide their thoughts related to the recommendations.

The following discussions took place or responses provided separated by transportation element. Responses to questions posed or discussion by the project team or City staff are preceded by an "A":

ROADWAY ELEMENT:

- Recently we had a round table with the Mayor regarding the area by the Chandler Mall. We have done a ton of improvements on Price Road, but when is it triggered to put in a left hand turn signal, that area alone will have an increase of about 5,000 new jobs, at what point will it be necessary to add a light? A: Usually traffic signals are more of an operational issue rather than something that is included within a master plan. Our Planning and Development group, as well as the operations team, will be looking at this.
- There is still quite a bit of vacant land over in this area as well. A: There are several improvements being proposed to the Loop 101 and 202 with ADOT and that may be more relevant to discuss; should these proposals go through that could really help with the congestion in that area?
- I really think that the Lone Butte facility and the Kyrene area should be discussed, we really need to know or at least have a sense of what is going to happen with the Gila River Indian Community.

ARE THERE OTHER ROADWAY INVESTMENTS THAT YOU WOULD LIKE TO SEE THAT WOULD BENEFIT THE CHANDLER COMMUNITY?

- The Price Road area, employment corridor, there is no freeway entrance off of Dobson which pushes all traffic to Alma School Road – I want to be sure this area is taken into account.
- The Chandler Mall area seems to always be at maximum capacity, are we looking into expanding Chandler Boulevard? A: That location is already built out to six lanes, the City typically doesn't go beyond that as crossing six lanes for a pedestrian becomes very dangerous. We also have to remember that the City does not build roads for the busiest day of the year or for "peak times".
- Would the City consider pedestrian crossings a roadway improvement? A: That will actually be talked about in the next section or two of the presentation.
- We, at the school district, did not get approval for a traffic signal at Ocotillo, making it difficult for our buses to turn left. We may have to restrict buses from turning left at Ocotillo (between Arizona Avenue and McQueen Road) because a light is so badly needed.

BIKE ELEMENT:

- We have heard several employers who complain about the public transportation for their employees who use the bus. The bus stops do not end close enough to their work so they then have to use bikes for the remaining length of travel, and often times there is no bike lane. A: It is standard practice of Chandler to now include a bike lane on all major roads when there are roadway improvements.

ARE THERE OTHER BICYCLE INVESTMENTS YOU WOULD LIKE TO SEE THAT WOULD BENEFIT THE CHANDLER COMMUNITY?

- As a bicyclist, the biggest problem in Chandler is when there is a bike lane that suddenly drops off or stops and then doesn't pick back up again for miles, it feels very unsafe.
- Another issue Chandler has is at different bike trails, the one where Paseo Trail crosses Riggs Road, there is no traffic signal and the crossing is ignored by drivers, some sort of light or signal is needed to alert drivers of bicyclists.

- It may also be a good idea to include a signal at Ryan Road because there are multiple developments going up in that area that will cause more traffic and bicyclists.
- The presentation mentioned shared use on Ocotillo and Price or Dobson, what does shared use mean? A: It would be similar to a really wide sidewalk and would come into the crosswalks and then go back out again.
- Tempe did that on some of their roads, but the lack of sight, with the sidewalk being right next to the road is dangerous for serious bicyclists, it is very low visibility for traffic and bicyclists will not use it because of the dangerous nature.
- In areas like Chandler and Warner or Chandler and McClintock, if employees had more of an opportunity to bike to lunch instead of drive they would do it, it would be easier for them to ride a bike to a nearby restaurant than repark their cars in that area.

TRANSIT ELEMENT:

ARE THERE OTHER TRANSIT INVESTMENTS YOU WOULD LIKE TO SEE THAT WOULD BENEFIT THE CHANDLER COMMUNITY?

- Have we looked into mobility options for the elderly, or accommodating electric scooters? A: Yes, that is something that we have been keeping in mind throughout this process.
- I like the testing by Valley Metro with the drop and the last leg with Waymo, I like the flex stuff, it vets out the best potential of our technology options.
- We at the school district are actually looking into eliminating drivers with our buses because we rarely have enough drivers. We are looking into doing depots and having other technology in place that would allow us and parents to know where their child is at all times and when they switch buses.

TRANSPORTATION TECHNOLOGY ELEMENT:

ARE THERE OTHER WAYS WE COULD LEVERAGE TECHNOLOGY THAT WOULD BENEFIT THE CHANDLER COMMUNITY?

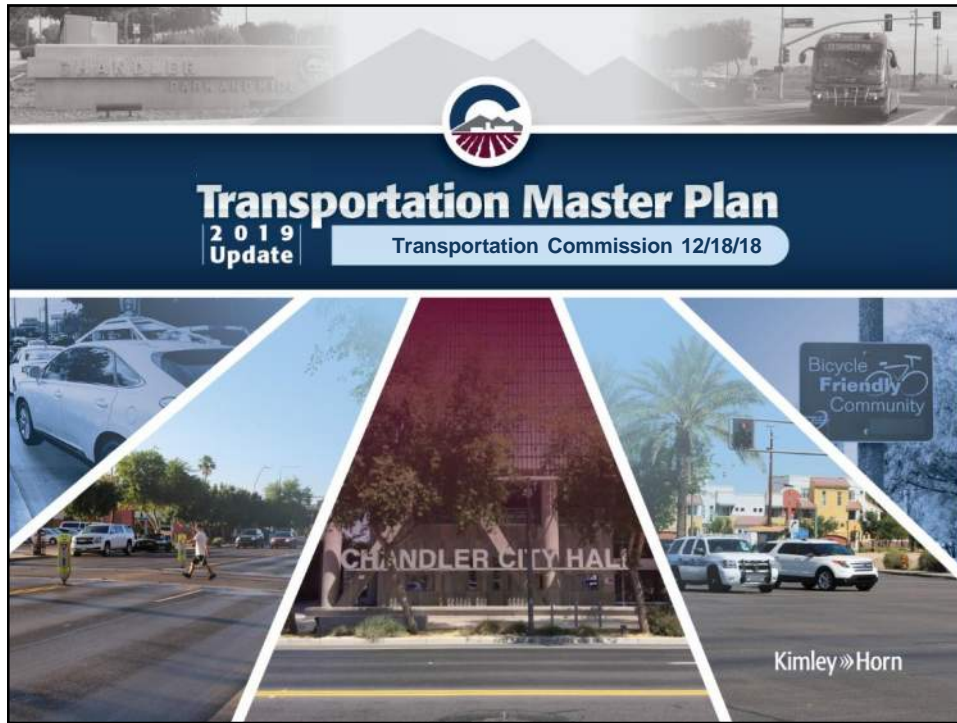
- We need to seriously consider having charging stations for electric cars. If you look at cell phone towers as an example, no one wanted them at first, but now we cannot function without them.
- Pittsburg has a really great app that shows you when a bus will arrive and where the buses are in real time, it would be nice if we had something similar, I think it would encourage more people to use buses if they knew exactly how far away the buses were. A: Valley Metro actually has a very similar app that they are working on and trying to improve.
- I think we really have to start thinking of Chandler as a global community, if we are really going to stand by that then transit is critical. We have recently had representatives from China visit Chandler, and they are very used to public transportation, if we want to attract more global visitors then we have to pay into that.
- Maintenance is also a huge factor to remember, when I was in Michigan, I saw companies leaving in droves going to Ohio because the City had allowed the road and bridges to deteriorate.
- We need to look at transportation as an economic development tool.
- We also need to consider what type of impact Waymo would have on traffic should their services explode, would it over run traffic, would we need facilities to accommodate it?

- As we move into more electric vehicles, we will also notice a decrease in the need for gas stations, we should also be thinking of ways to repurpose gas stations.
- With electric vehicles becoming more popular we will also have to remember that the funds the government receives from gas taxes will decrease, new sustainable funding models will be needed.
- Congestion pricing could also be a way to encourage people to get out of one person vehicles, to carpool more often.

CLOSING COMMENTS & ADJOURN

Teresa Makinen informed the participants that she will upload the presentation and public meeting exhibits on the website so if there is information they were unable to provide today, she will send out an email to let them know the stakeholder workshop materials are available on the web and stakeholders can still provide comments. In addition, the draft plan recommendations provided tonight will be presented to the Transportation Commission at an upcoming meeting, and then early next year to the City Council.

She thanked the participants for their active participation and the meeting ended.



Presentation Agenda

- Project overview and vision
- Transportation Master Plan (TMP) elements (Roadway, Bike/Ped, Transit)
 - Existing conditions
 - Look to the future
- Other parts of TMP
 - Public/stakeholder engagement
 - Implementation plan
- Questions?



TMP Priorities

- Expand/enhance transportation system to accommodate growth and foster economic development
- Support and promote the use of alternative mode choices
- Provide for connections between modes
- Apply new and emerging technologies to improve traffic and transit operations
- Enhance availability and access to real-time multi-modal transportation information



ROADWAY ELEMENT



BICYCLE/PEDESTRIAN ELEMENT



Bicycle/Pedestrian Element Existing Conditions

- Bicycle lanes and sidewalks on most major roads except in South Chandler
- Some off-street paths/trails along canals/powerlines but several gaps in network
- Some signalized mid-block crossings
- Bicycle/pedestrian crashes
- ADA Transition Plan
- Shared bike/scooter programs



Bicycle/Pedestrian Element Look to the Future

- How to improve safety for bicyclists and pedestrians?
- Separated/protected bike lanes?
- Priorities for off-street improvement locations and features?
- Where is bicycle/pedestrian connectivity needed?
- How to better accommodate disadvantaged populations?
- Future of shared bikes/scooters?



TRANSIT ELEMENT

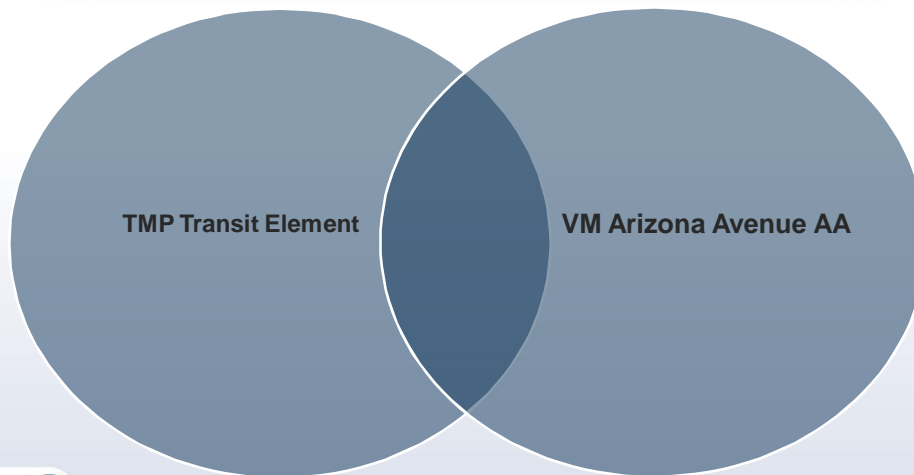


Transit Element Existing Conditions

- Fixed bus routes
- Express bus route with park-and-ride lot
- Paratransit services
- Connections to existing light rail and regional bus network



Concurrent Transit Planning Efforts



Transit Element Look to the Future

- Support for high-capacity transit corridors (Rural Rd, Arizona Ave, Chandler Blvd)?
- Bus service enhancement or reduction?
- Support for alternatives to fixed route service (e.g., on-demand, circulator)?
- How to make paratransit services more cost-effective?
- Impacts of shared car/bike/scooter programs?
- How will technology change transit functionality and transit demand?



PUBLIC/STAKEHOLDER ENGAGEMENT



Public/Stakeholder Engagement Outreach Groups

- Residents, businesses, property owners, travelers
- City Staff
- Stakeholder Group
- Transportation Commission
- City Council



Public/Stakeholder Engagement Proposed Approach

- Outreach means/methods
 - Online: webpage, survey, and interactive map
 - Public meetings
 - Stakeholder interviews
 - Technology summit
 - E-blasts
- Coordination with City's PIO
 - Press releases
 - Social media - NextDoor






IMPLEMENTATION PLAN




Transportation Master Plan 2019 Update

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Implementation Plan

- How to prioritize within and across modes?
- How to fund improvements?
- Regional funding partnerships (e.g., half-cent sales tax extension)?
- Should Southeast Chandler roads be completed before other improvements (e.g., safety, capacity)?



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Upcoming Meetings

- January: Technology summit
- January: Public outreach – Round 1
- April: Transportation Commission meeting
- August: Transportation Commission meeting
- August: Public outreach – Round 2
- Stakeholder workshops – 1-2 throughout project



Questions?





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Transportation Commission Meeting

Kimley-Horn | Michael Grandy | May 15, 2019 | City of Chandler

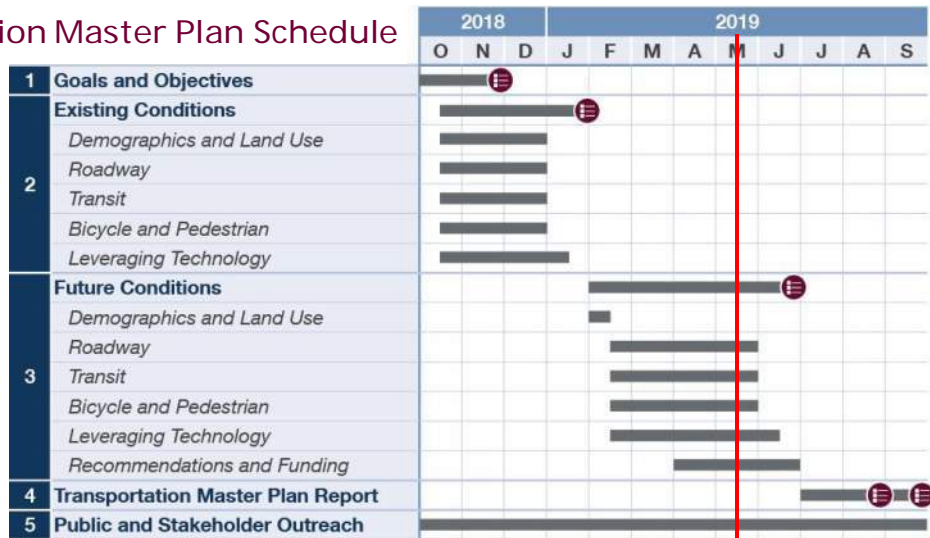


Today's Agenda

- Project overview
- Preliminary online survey results
- Transportation Master Plan elements (Roadway, Bike/Ped, Transit)
 - Community engagement input
 - Draft improvement recommendations
 - Transportation Commission input
- Next steps



Transportation Master Plan Schedule



Transportation Master Plan Purpose

Leverage technology to provide a sustainable, multimodal transportation system for the community

- Enhance transportation system management and operations
- Promote alternative mode choices
- Provide connections between modes
- Apply new and emerging technologies
- Provide enhanced real-time travel information



PRELIMINARY ONLINE SURVEY RESULTS



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Survey Demographics

600+
Responses

- 86% full-time Chandler residents
- 8% non-residents who travel in Chandler regularly
- 5% non-residents who work in Chandler
- 1% non-residents with other interests in Chandler
- Fairly even distribution for how long respondents have lived in Chandler



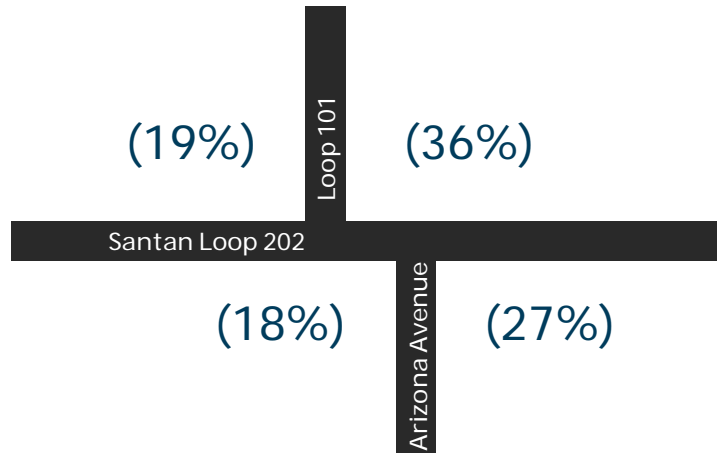
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Where do you primarily travel in Chandler?



Why are you most interested in each mode of travel?

Benefit	Vehicle	Bicycle	Pedestrian	Transit
Convenience	✓✓✓	✓	✓	✓
Cost-Effectiveness	✓	✓	✓	✓✓
Leisure/Recreation (Exercise)	✓	✓✓	✓✓	✓
Environmental Sustainability	✓	✓	✓	✓
<i>Not Interested in Mode</i>	3%	25%	14%	20%

Note: Respondents could provide multiple responses



Which factors are most important to you?

Factor	Vehicle	Bicycle	Pedestrian	Transit
Quickest Travel Time	✓✓✓	✓	✓	✓✓
Feeling Safe	✓✓	✓✓✓	✓✓✓	✓✓
Comfortable/Attractive Features	✓	✓	✓✓	✓
Ease of Access to Destination	✓✓	✓✓	✓✓	✓✓
Multiple Route Options to Destination	✓✓	✓	✓	✓

Note: Respondents could provide multiple responses



To which destinations do you travel most?

- **Vehicle:**
 - Shopping centers
 - Employment
- **Bicycle:**
 - Parks/recreational facilities
 - Shopping centers
- **Pedestrian:**
 - Parks/recreational facilities
 - Shopping centers
- **Transit:**
 - Employment
 - Shopping centers

Note: Respondents could provide multiple responses



What is your current mode of travel?

Mode of Travel	Primary Mode	Secondary Mode
Personal Vehicle	92%	12%
Personal Bicycle	2%	20%
Shared Auto	1%	23%
Shared Bike/Scooter	0%	1%
Walking	1%	24%
Transit	4%	9%
None of the Above	0%	11%



In what mode of travel should the City invest?

Mode of Travel	Invest in Most	Invest in 2 nd Most
Automobile	32%	23%
Bicycle/Scooter	9%	30%
Walking	2%	12%
Transit	50%	25%
None of the Above	1%	3%
Other	6%	7%



What is your expected primary mode of travel in 20 years?

Personal Auto	Personal Driverless Auto	Personal Bike/ Scooter	Shared Auto	Shared Bike/ Scooter	Walking	Transit
25%	30%	5%	12%	2%	5%	21%



Public Survey Results *Transportation Commission Input*

- Are the survey results consistent with your perspective?
- What did you find interesting about the survey results?
- What surprised you about the survey results?
- Any questions about the survey results?



ROADWAY ELEMENT

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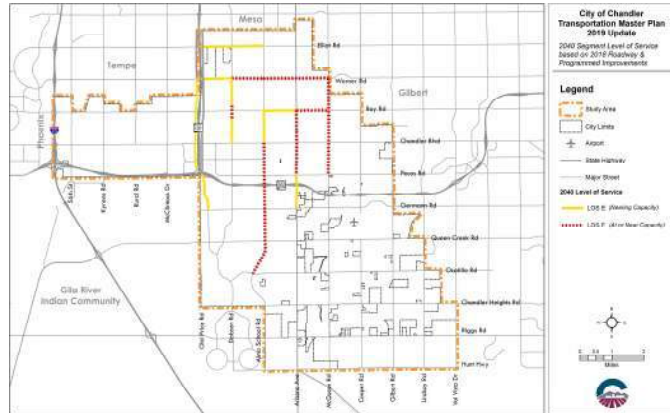
Roadway Element *Input from Public Meetings*

- Several locations where attendees have traffic safety concerns (e.g., Ray Rd, Arizona Ave) or regularly experience traffic congestion (e.g., Alma School Rd, Warner Rd)
- Improvements desired where only two existing lanes or where attendees have safety/congestion concerns (e.g., Queen Creek Rd, Chandler Heights Rd)

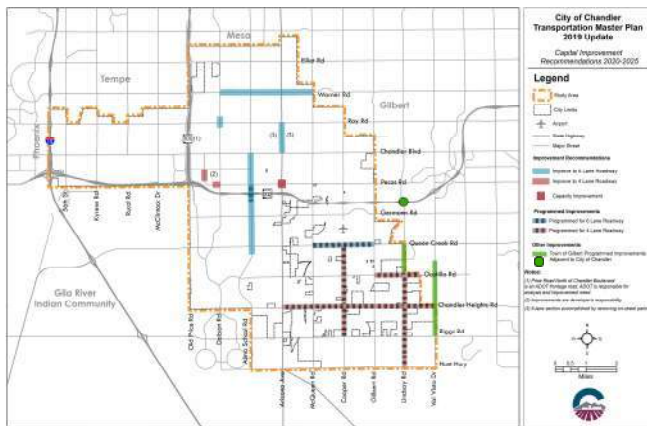


Roadway Element 2040 Level of Service without Improvements

- Most roads with capacity constraints in center or north parts of Chandler
- Programmed roadway projects already accounted for in analysis



Roadway Element Draft Near-Term Recommendations

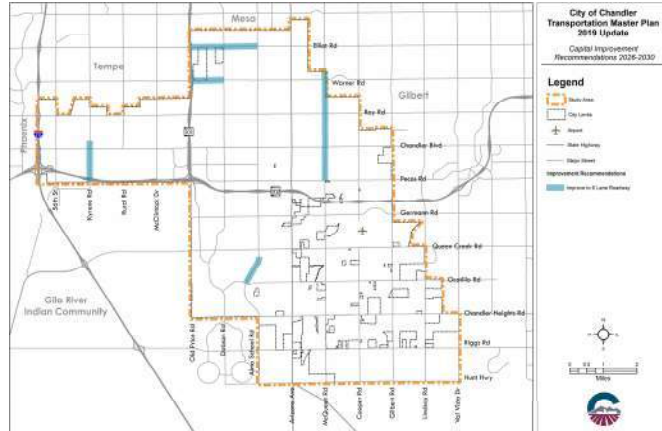


- Programmed projects shown
- Widen to 6 lanes:
 - Alma School Rd
 - Warner Rd
 - Dobson Rd
 - Arizona Ave (remove on-street parking)
- Capacity improvement:
 - Pecos Rd/Arizona Ave



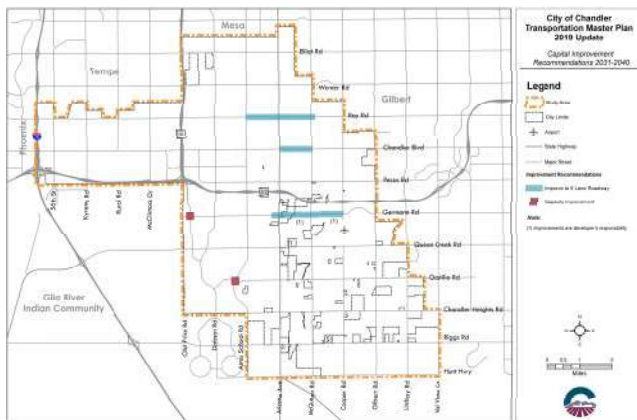
Roadway Element *Draft Mid-Term Recommendations*

- Widen to 6 lanes:
 - Elliot Rd
 - McQueen Rd
 - Warner Rd
 - Kyrene Rd
 - Alma School Rd



Roadway Element *Draft Long-Term Recommendations*

- Widen to 6 lanes:
 - Ray Rd
 - Chandler Blvd
 - Germann Rd
- Capacity improvement:
 - Germann Rd/Price Rd
 - Ocotillo Rd/Alma School Rd



Roadway Element 2040 Number of Lanes

- Network of primarily 4-lane and 6-lane roads
- Several 4-lane roads with 6 lanes at intersections north of Loop 202 and east of Loop 101



Roadway Element Transportation Commission Input

- Which Roadway recommendations do you agree with, and why?
- Which Roadway recommendations cause you some concern, and why?
- What other Roadway investments or improvements would benefit or impact our community in the future?
- Anything else we should consider related to Roadways?



BICYCLE/ PEDESTRIAN ELEMENT

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Bicycle/Pedestrian Element *Input from Public Meetings*

- Most attendees are “interested but concerned” cyclists
- Prefer off-street or separated/buffered facilities
- Address gaps in bike lane network (e.g., Ray Rd, Arizona Ave)
- Provide more signalized mid-block crossings
- Divergent opinions on shared scooters/bikes



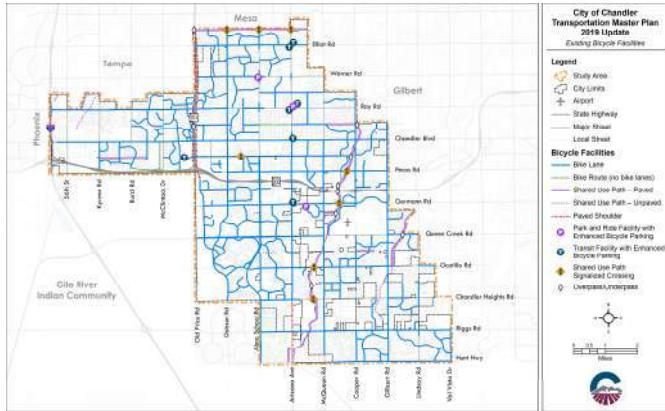
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Bicycle/Pedestrian Element Existing Facilities

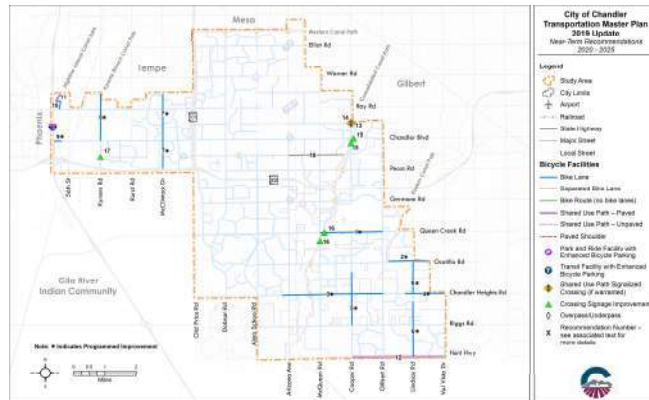


- Gaps in bike lane network
- Shared use path gaps or unpaved
- Several trail/path crossings of arterial roads are not signalized

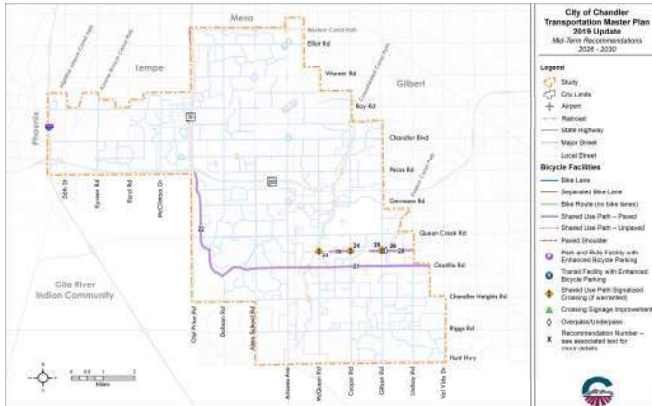


Bicycle/Pedestrian Element Draft Near-Term Recommendations

- Programmed projects shown
- Consolidated Canal/Paseo Trail crossing improvements
- Separated bike lanes on Frye Rd
- Shared use paths:
 - Hunt Hwy
 - Highline Canal



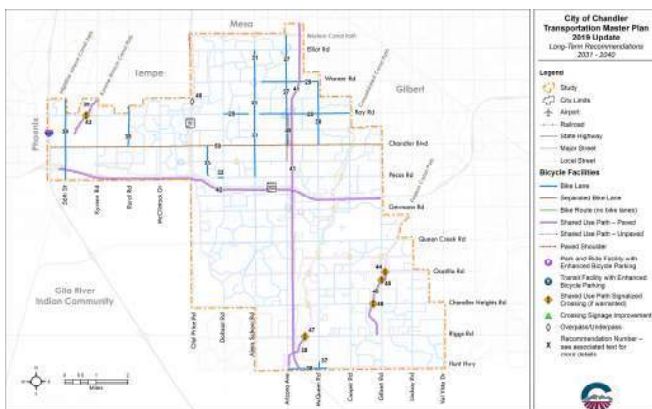
Bicycle/Pedestrian Element Draft Mid-Term Recommendations



- Paved shared use path:
 - Ocotillo Rd
 - Price Rd
 - Appleby Trail
- Crossing improvements on Appleby Trail



Bicycle/Pedestrian Element Draft Long-Term Recommendations



- Bike lanes in northern Chandler
- Shared use paths:
 - Eastern, Kyrene, and Consolidated Canals
 - Loop 202
 - UP railroad spur
 - Appleby Trail
- Signalized path crossings
- Separated bike lanes:
 - Chandler Blvd
 - Arizona Ave



Bicycle/Pedestrian Element 2040 Facilities



- Bike lanes on all arterials
- Shared use path signalized crossings at all arterial roads (if warranted)
- All shared use paths paved
- Interconnected network of on-street and off-street facilities



Bicycle/Pedestrian Element Transportation Commission Input

- Which Bicycle/Pedestrian recommendations do you agree with, and why?
- Which Bicycle/Pedestrian recommendations cause you some concern, and why?
- What other Bicycle/Pedestrian investments or improvements would benefit or impact our community in the future?
- Anything else we should consider related to Bicycles/Pedestrians?



TRANSIT ELEMENT

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Transit Element *Input from Public Meetings*

- Desired local destinations:
 - Downtown Chandler
 - Chandler Fashion Center
 - Fulton Ranch Towne Center
 - Employment corridors (e.g., Price Rd, US 60)
 - Intel Ocotillo Campus



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Transit Element Input from Public Meetings

- Desired regional destinations:
 - Downtown Phoenix
 - Arizona State University, Tempe Campus/Downtown Tempe
 - Phoenix Sky Harbor International Airport
 - Arizona State University, Polytechnic Campus
 - Phoenix-Mesa Gateway Airport



Transit Element Input from Public Meetings

- Desired transit services:
 - High-capacity transit (light rail/streetcar/bus rapid transit)
 - Neighborhood circulators
 - Shared microtransit
 - Commuter rail



Transit Element *Flexible Transit Services*

- Provides transit-like service but on a smaller, more flexible scale
- Vehicles can range from cars to vans to shuttle buses
- Provides first mile/last mile connectivity
- On-demand or pop-up stops
- Could be autonomous



FlexRide
(Denver)



On-Demand Shuttle Service
(Austin, Seattle, and New York City)



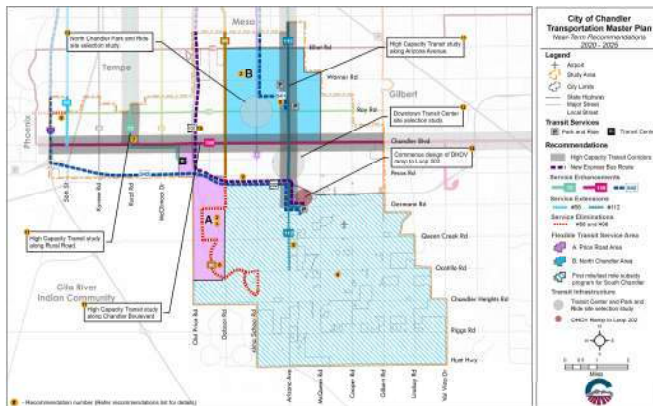
Olli
Sacramento State Pilot Program



Waymo
Valley Metro Pilot Program
Early Ride Program



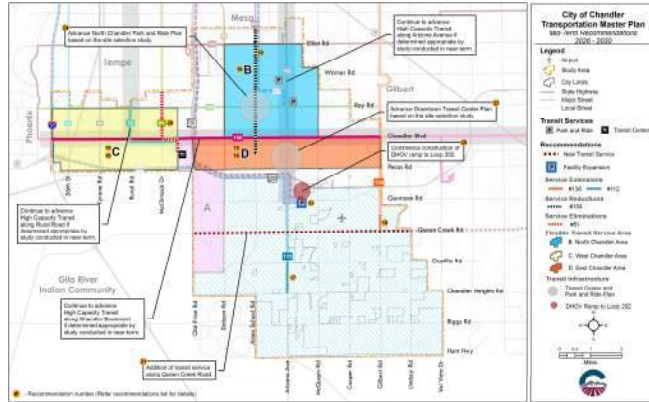
Transit Element *Draft Near-Term Recommendations*



- Local bus service refinements
- New express bus route
- Flexible transit service areas:
 - Price Road (pilot)
 - North Chandler (study)
- First mile/last mile subsidy program in South Chandler
- Site selection and HCT studies



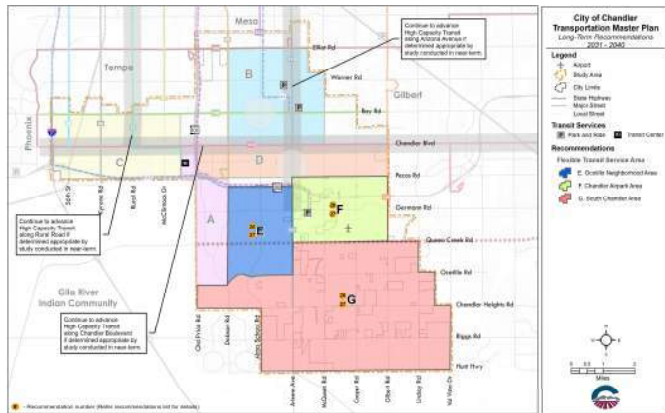
Transit Element Draft Mid-Term Recommendations



- Local bus service refinements
- New service on Queen Creek Rd
- Construct DHOV Ramp to Loop 202 from park-and-ride
- Flexible transit service areas
 - North, West, and East Chandler
- Construct transit center and park-and-ride



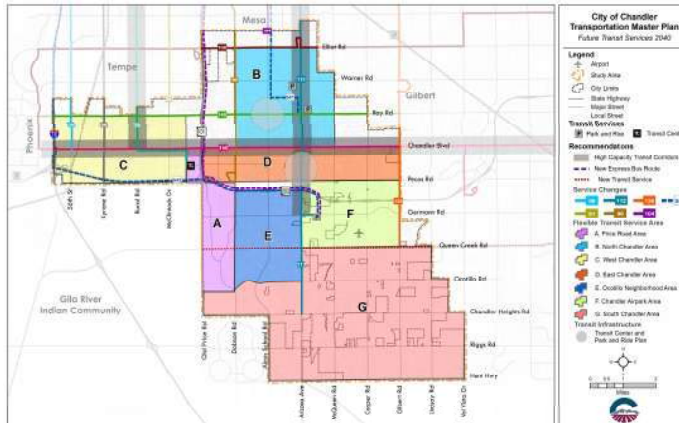
Transit Element Draft Long-Term Recommendations



- Flexible transit service areas
 - Ocotillo
 - Chandler Airpark
 - South Chandler
- HCT corridors
 - Arizona Ave
 - Chandler Blvd
 - Rural Rd



Transit Element 2040 Transit System



- Flexible transit service covers most of Chandler
- Interconnected hierarchy of routes
 - High capacity transit
 - Express bus
 - Local bus
- New/expanded transit centers and park-and-ride lots



Transit Element Transportation Commission Input

- Which Transit recommendations do you agree with, and why?
- Which Transit recommendations cause you some concern, and why?
- What other Transit investments or improvements would benefit or impact our community in the future?
- Anything else we should consider related to Transit?



LEVERAGING TECHNOLOGY

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Leveraging Technology

Input from Technology Expert Interviews

- Focus on giving people mode choices
- Technology changes fast – need flexibility
- Autonomous and connected vehicles – 20+ years away from large-scale implementation
- Collection and sharing of travel data is key
- Strategic public-private partnerships are critical
- City's role is to encourage and implement technological advances for the benefit of our residents



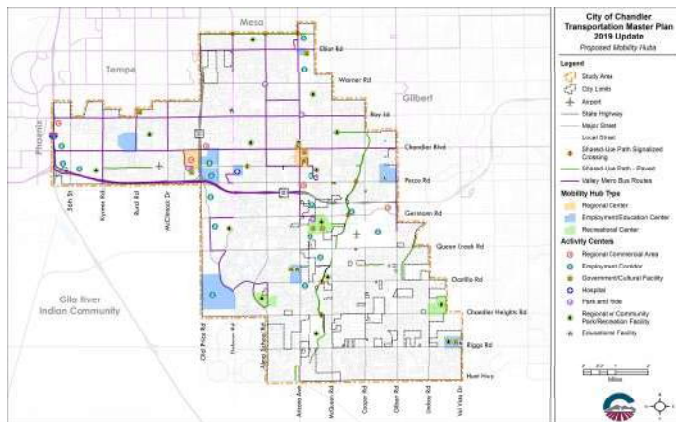
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Leveraging Technology *Emerging Transportation Technology*

- Autonomous/connected vehicles
- Ride share apps
- Flexible transit apps
- Shared micromobility devices (e.g., e-bikes, scooters)
- City fiber network
- Wireless communications
- City traffic cameras
- Advanced signal controls
- Travel information



Leveraging Technology *Intermodal Mobility*



- Focus on people and data
- Intermodal mobility hubs:
 - Traveler information
 - Active transportation
 - Transit
 - Motorized services
- Flexible policies
- Partner with private sector



Leveraging Technology *Transportation Commission Input*

- Which Technology concepts do you agree with, and why?
- Which Technology concepts cause you some concern, and why?
- Anything else we should consider related to Technology?
- What other Technology investments or improvements would benefit or impact our community in the future?



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Next Steps

- Future Conditions working paper
- City review of draft recommendations
- Stakeholder and public review of draft recommendations
- Transportation Commission meeting
- Other City committee meetings
- Final Report – late 2019




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KeepChandlerMoving.com





Transportation Master Plan 2019 Update

Transportation Commission Meeting

Kimley-Horn | Michael Grandy | Nov. 6, 2019 | City of Chandler



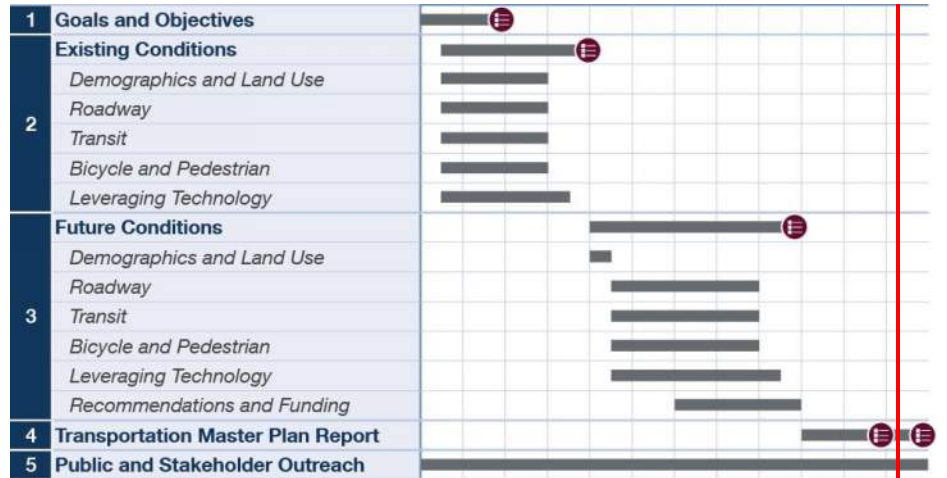
Today's Agenda



- Project overview
- Transportation Commission input
- Survey final results
- Transportation Master Plan elements (Roadway, Bicycle/Pedestrian, Transit, Technology)
 - Community engagement input – Round 1
 - Draft improvement recommendations
 - Community engagement input – Round 2
- What's next?



Transportation Master Plan Schedule



Transportation Master Plan 2019 Update

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Transportation Master Plan Purpose

Leverage technology to provide a sustainable, multimodal transportation system for the community

- Enhance transportation system management and operations
- Promote alternative mode choices
- Provide connections between modes
- Apply new and emerging technologies
- Provide enhanced real-time travel information



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SURVEY FINAL RESULTS

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Survey Demographics

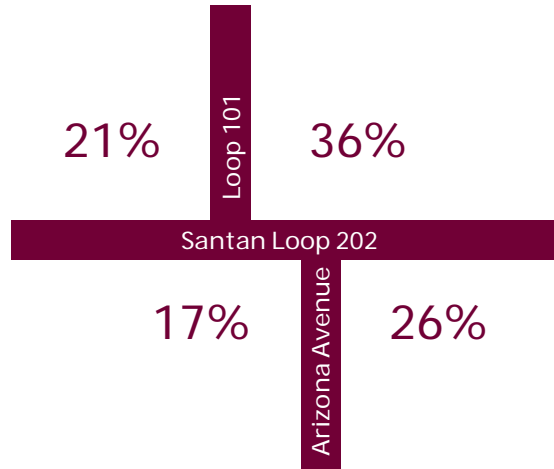
1,075
Responses

- 85% full-time Chandler residents
- 9% non-residents who work in Chandler
- 6% non-residents who travel in Chandler regularly
- Fairly even distribution for how long respondents have lived in Chandler



6

Where do you primarily travel in Chandler?



Why are you most interested in each mode of travel?

Benefit	Vehicle	Bicycle	Pedestrian	Transit
Convenience	✓✓✓	✓	✓	✓
Cost-Effectiveness	✓	✓	✓	✓✓
Leisure/Recreation (Exercise)	✓	✓✓	✓✓	✓
Environmental Sustainability	✓	✓	✓	✓
<i>Not Interested in Mode</i>	3%	25%	15%	24%

Note: Respondents could provide multiple responses



Which factors are most important to you?

Factor	Vehicle	Bicycle	Pedestrian	Transit
Quickest Travel Time	✓✓✓	✓	✓	✓✓
Feeling Safe	✓✓	✓✓✓	✓✓✓	✓✓
Comfortable/Attractive Features	✓	✓	✓✓	✓
Ease of Access to Destination	✓✓	✓✓	✓✓	✓✓
Multiple Route Options to Destination	✓✓	✓	✓	✓

Note: Respondents could provide multiple responses



To which destinations do you travel most?



- Vehicle:
 - Shopping centers
 - Employment



- Pedestrian:
 - Parks/recreational facilities
 - Shopping centers



- Bicycle:
 - Parks/recreational facilities
 - Shopping centers



- Transit:
 - Employment
 - Shopping centers

Note: Respondents could provide multiple responses



What is your current mode of travel?

Mode of Travel	Primary Mode	Secondary Mode
Personal Vehicle	92%	12%
Personal Bicycle	3%	20%
Shared Vehicle	1%	24%
Shared Bicycle/Scooter	0%	1%
Walking (Pedestrian)	1%	23%
Transit	2%	8%
None of the Above	1%	12%

In what mode of travel should the City invest?

Mode of Travel	Invest in Most	Invest in 2 nd Most
Automobile	35%	21%
Bicycle/Scooter	10%	30%
Walking (Pedestrian)	2%	12%
Transit	44%	27%
None of the Above	2%	4%
Other	7%	6%

What is your expected primary mode of travel in 20 years?

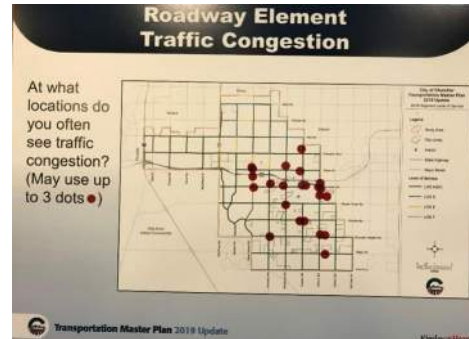
Personal Auto	Personal Driverless Auto	Personal Bike/ Scooter	Shared Auto	Shared Bike/ Scooter	Walking	Transit
33%	28%	5%	11%	1%	4%	18%



ROADWAY ELEMENT

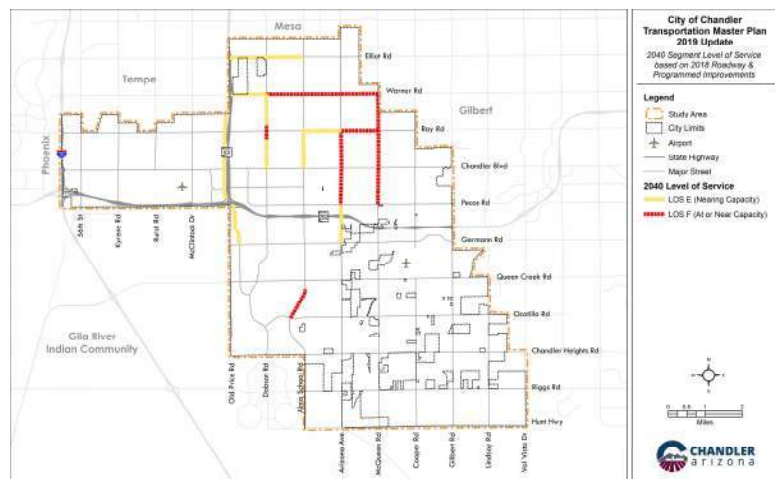
Roadway Element *Input from Round 1 Community Engagement*

- Traffic safety concerns
- Traffic congestion
- Improvements desired to mitigate issues



Roadway Element *2040 Level of Service without Improvements*

- Capacity constraints primarily north of Loop 202
- Programmed projects accounted for in analysis



Roadway Element

Draft Near-Term Recommendations (2020-2025)

City of Chandler Transportation Master Plan 2019 Update
Capital Improvement Recommendations 2020-2025

Legend

- Study Area
- City Limits
- Airport
- State Highway
- Major Street

Improvement Recommendations

- Major Arterial Capacity Improvement
- Minor Arterial Capacity Improvement
- 2 x 4 Traffic Calming Improvement

Programmed Improvements

- Programmed for 6 Lane Roadway
- Programmed for 4 Lane Roadway

Other Improvements

- Items of Other Jurisdiction
- Improvements Adjacent to City of Chandler

Notes: (1) Prior Roadwork of Chandler Boulevard in 4000' segment will still be available for analysis and improvement need. (2) Improvements are per City Development Department.

- Widen to 4 lane (programmed):
 - Chandler Heights Rd
 - Ocotillo Rd
 - Cooper Rd
 - Lindsay Rd
- Widen to 6 lanes (programmed):
 - Alma School Rd
 - Gilbert Rd
- Major arterial capacity improvement:
 - Dobson Rd
- Traffic calming study:
 - Hunt Hwy
- Adjacent agency projects shown

Transportation Master Plan 2019 Update

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Roadway Element

Draft Mid-Term Recommendations (2026-2030)

- Widen to 6 lanes (programmed):
 - Alma School Rd
- Major arterial capacity improvement:
 - Elliot Rd
 - Warner Rd
 - Kyrene Rd
 - Alma School Rd
 - McQueen Rd
- Other improvements:
 - Pecos Rd/Arizona Ave
 - Freeway to Park-and-Ride Connector

City of Chandler Transportation Master Plan 2019 Update
Capital Improvement Recommendations 2026-2030

Legend

- Study Area
- City Limits
- Airport
- State Highway
- Major Street

Improvement Recommendations

- Major Arterial Capacity Improvement
- Other Capacity Improvement
- Freeway to Park-and-Ride Connector

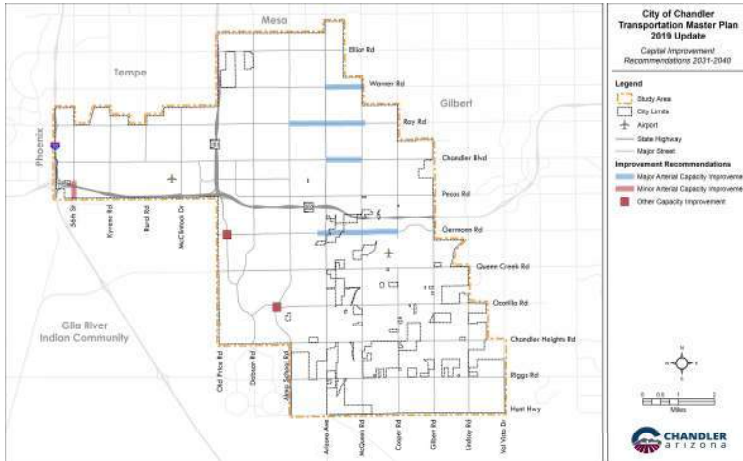
Programmed Improvements

- Programmed for 6 Lane Roadway

Transportation Master Plan 2019 Update

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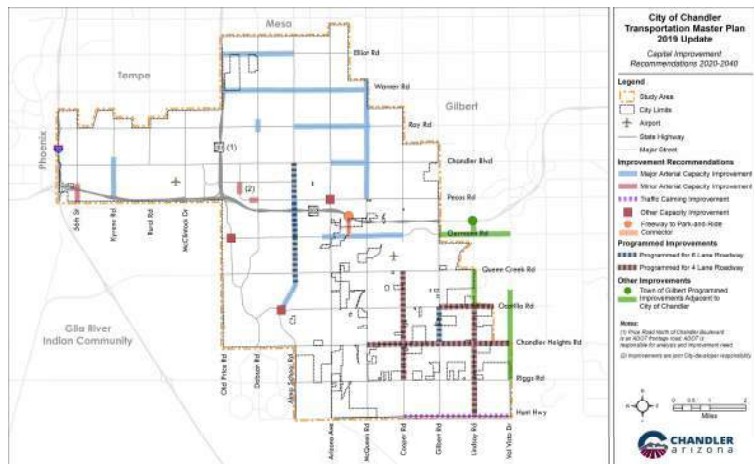
Roadway Element *Draft Long-Term Recommendations (2031-2040)*



- Major arterial capacity improvement:
 - Warner Rd
 - Ray Rd
 - Chandler Blvd
 - Germann Rd
- Minor arterial capacity improvements:
 - 56th St
- Other improvements:
 - Germann Rd/Price Rd
 - Ocotillo Rd/Alma School Rd

Roadway Element *Draft Recommendations Combined (2020-2040)*

- Network of primarily 4-lane and 6-lane roads
- Several 4-lane roads with 6 lanes at intersections north of Loop 202 and east of Loop 101



Roadway Element

Input from Round 2 Community Engagement

- Generally supportive of draft recommendations
- Other input provided:
 - Concerns about high speeds on arterials
 - Concerns about pedestrian and bicycle safety on arterials
 - Questions about right-of-way impacts of roadway widening
 - Requests for additional traffic signals
 - Questions about funding availability



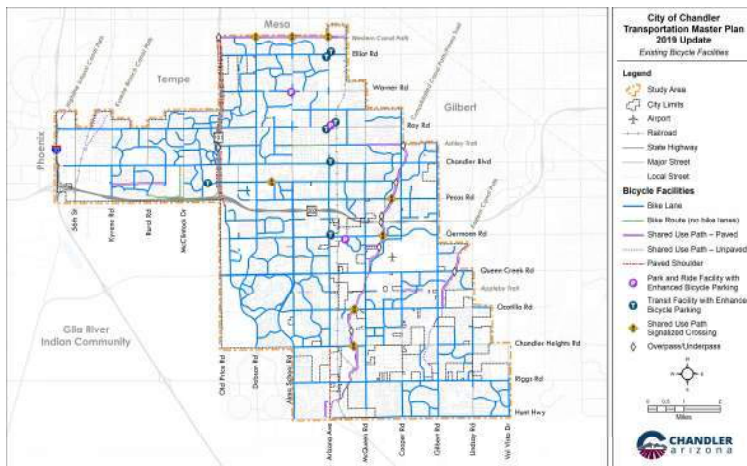
BICYCLE/ PEDESTRIAN ELEMENT

Bicycle/Pedestrian Element *Input from Round 1 Community Engagement*

- Primarily “interested but concerned” cyclists
- Prefer off-street or separated/buffered facilities
- Address gaps in bike lane network
- Need more signalized mid-block crossings
- Differing opinions on shared scooters/bikes



Bicycle/Pedestrian Element *Existing Facilities*

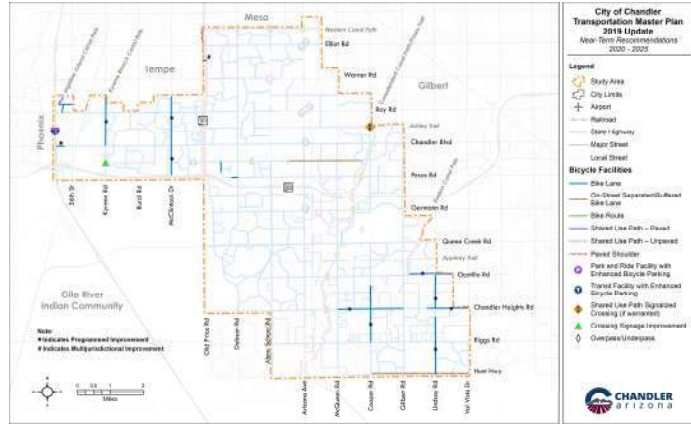


- Gaps in bike lane network
- Shared use path gaps or unpaved
- Several trail/path crossings of arterial roads are not signalized

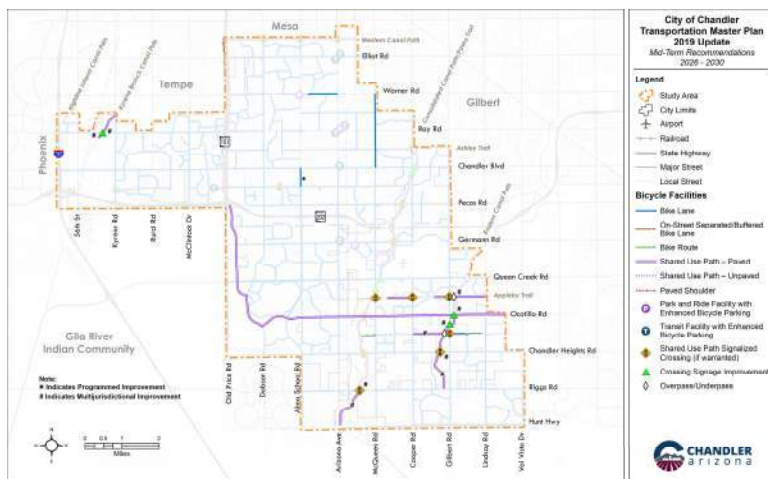


Bicycle/Pedestrian Element Draft Near-Term Recommendations (2020-2025)

- Programmed bike lanes:
 - Chandler Blvd
 - Kyrene Rd
 - McClintock Dr
 - Part of roadway widening
- On-street separated/buffered bike lanes:
 - Frye Rd
 - Hunt Hwy
- Paved shared use path:
 - Highline Canal
 - Ashley Trail (with signalized crossing)



Bicycle/Pedestrian Element Draft Mid-Term Recommendations (2026-2030)



- Bike lanes (generally part of roadway widening)
- Paved shared use path:
 - Ocotillo Rd
 - Price Rd
 - Appleby Trail
 - Eastern Canal
 - Consolidated Canal
 - Kyrene Branch Canal
- Signalized path crossings
- Bridges over Eastern Canal



Bicycle/Pedestrian Element Draft Long-Term Recommendations (2031-2040)



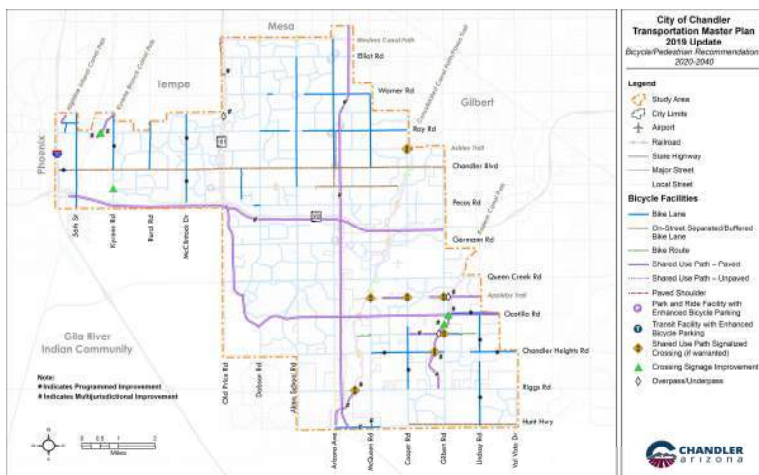
- Bike lanes (some are part of roadway widening)
- Paved shared use path:
 - Loop 202
 - Railroad spur
- Loop 101 overpass
- On-street separated/buffered bike lanes:
 - Chandler Blvd
 - Arizona Ave



Transportation Master Plan 2019 Update



Bicycle/Pedestrian Element Draft Recommendations Combined (2020-2040)



- Bike lanes on all arterials
- Shared use path signalized crossings at all arterial roads (if warranted)
- All shared use paths paved
- Interconnected network of on-street and off-street facilities



Transportation Master Plan 2019 Update



Bicycle/Pedestrian Element

Input from Round 2 Community Engagement

- Generally supportive of draft recommendations
- Other input provided:
 - Concerns about high speeds and aggressive driving on arterials
 - Want more off-street or protected/separated pedestrian and bicycle facilities
 - Requests for more shade
 - Questions about funding availability



TRANSIT ELEMENT

Transit Element

Input from Round 1 Community Engagement

Desired local destinations:

- Downtown Chandler
- Chandler Fashion Center
- Fulton Ranch Towne Center
- Employment corridors (e.g., Price Rd, US 60)
- Intel Ocotillo Campus



Transit Element

Input from Round 1 Community Engagement



Desired regional destinations:

- Downtown Phoenix
- Arizona State University, Tempe Campus/Downtown Tempe
- Phoenix Sky Harbor International Airport
- Arizona State University, Polytechnic Campus
- Phoenix-Mesa Gateway Airport

Transit Element *Input from Round 1 Community Engagement*

Desired transit services:

- High-capacity transit (light rail/streetcar/bus rapid transit)
- Neighborhood circulators
- Commuter rail
- Shared microtransit/flexible transit service



Transit Element *Examples of Flexible Transit Services*

- Provides transit-like service but on a smaller, more flexible scale
- Vehicles can range from cars to vans to shuttle buses
- Provides first mile/last mile connectivity
- On-demand or pop-up stops
- Could be autonomous



*FlexRide
(Denver)*



*On-Demand Shuttle Service
(Austin, Seattle, and New York City)*

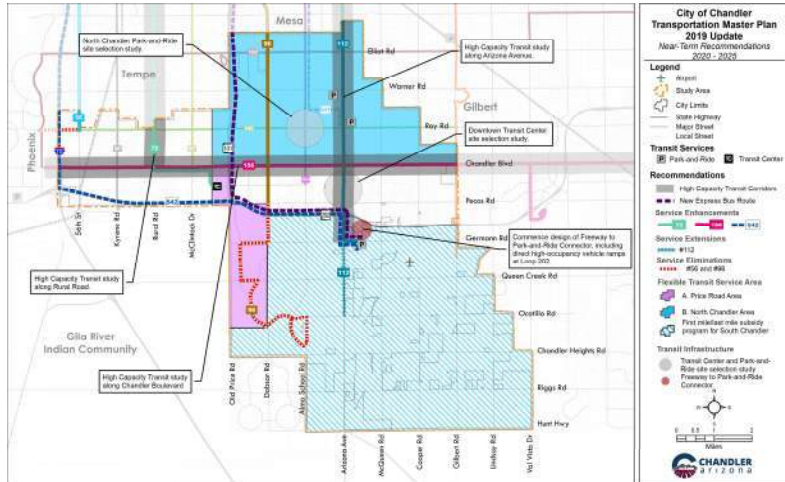


*Olli
Sacramento State Pilot Program*



*Waymo
Valley Metro Pilot Program
Early Ride Program*

Transit Element Draft Near-Term Recommendations (2020-2025)



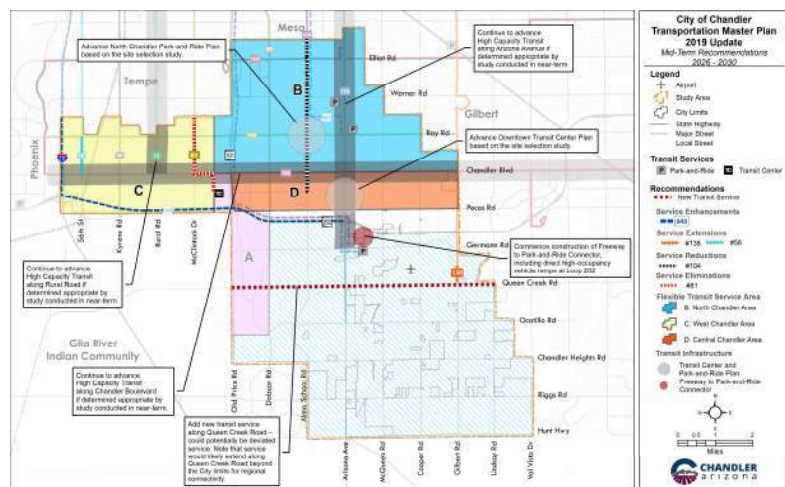
- Local bus service refinements
- New express bus route
- Flexible transit service areas:
 - Price Road (pilot)
 - North Chandler (study)
- First mile/last mile subsidy program in South Chandler
- Site selection and high capacity transit studies



Transportation Master Plan 2019 Update



Transit Element Draft Mid-Term Recommendations (2026-2030)



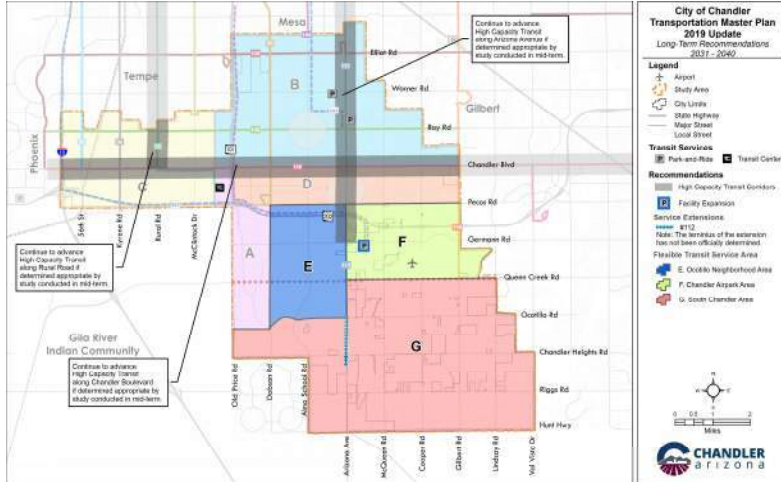
- Local bus service refinements
- New service on Queen Creek Rd
- Freeway to park-and-ride connector
- Flexible transit service areas:
 - North, West, and East Chandler
- Construct transit center and park-and-ride



Transportation Master Plan 2019 Update



Transit Element Draft Long-Term Recommendations (2031-2040)



- Flexible transit service areas:
 - Ocotillo
 - Chandler Airport
 - South Chandler
- High capacity transit corridors:
 - Arizona Ave
 - Chandler Blvd
 - Rural Rd



Transit Element Draft Recommendations Combined (2020-2040)



- Flexible transit service covers most of Chandler
- Interconnected hierarchy of routes
 - High capacity transit
 - Express bus
 - Local bus
- New/expanded transit centers and park-and-ride lots



Transit Element

Input from Round 2 Community Engagement

- Generally supportive of draft recommendations
- Other input provided:
 - Questions about details of flexible transit service
 - Need to be able to transfer seamlessly between different transit types/services
 - Questions about funding availability



LEVERAGING TECHNOLOGY

Leveraging Technology

Input from Technology Expert Interviews

- Provide mode choices
- Need flexibility to keep up with changing technology
- Autonomous/connected vehicles are 20+ years away from large-scale implementation
- Maintain/preserve existing infrastructure
- Collection/sharing of travel data is key
- Strategic public-private partnerships are critical
- City's role is to encourage/implement technology for benefit of residents



Leveraging Technology

Potential Transportation Technology Tools

- City fiber network
- Wireless communications
- City traffic cameras
- Advanced traffic signal controls
- Travel information
- Ride share apps
- Shared micromobility devices (e.g., e-bikes, scooters)
- Flexible transit apps
- Autonomous/connected vehicles



Leveraging Technology Mobility Hubs – Sample Concept



Sample mobility hub concept:

- Multiple transit routes
- Seating/shade
- Real-time travel info with interactive kiosks
- Bike parking
- Car-share parking
- Rideshare curb space
- Wayfinding
- Lockers

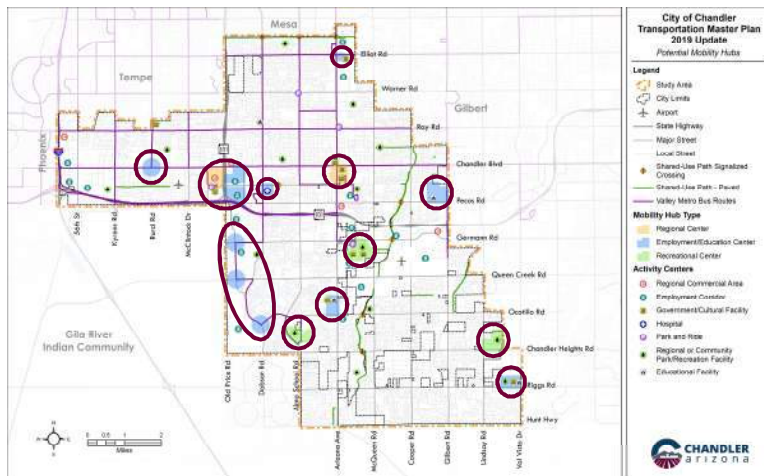
Source: SANDAG



Transportation Master Plan 2019 Update



Leveraging Technology Draft Recommendations (2020-2040)



- Physical/virtual mobility hubs:
 - Traveler information
 - Accommodation for all modes
 - Traveler amenities
- Technology strategies:
 - Focus on people and data
 - Flexible policies
 - Partner with private sector



Transportation Master Plan 2019 Update



Leveraging Technology

Draft Recommendations (2020-2040)

- Near-Term (2020-2025):
 - Develop an Intelligent Transportation System (ITS) Strategic Plan
- Mid-Term (2026-2030) and Long-Term (2031-2040):
 - Develop and construct physical and virtual mobility hubs
- Ongoing Maintenance:
 - Roadway signs/pavement markings critical for autonomous vehicles
 - City's ITS devices (e.g., traffic signals, cameras, fiber)



Leveraging Technology

Input from Round 2 Community Engagement

- Generally supportive of draft recommendations
- Other input provided:
 - Questions about details of mobility hubs
 - Technology can help transportation be more cost-effective
 - Difficult to predict future technology – need flexibility
 - Questions about funding availability



What's Next?

- Late 2019: Transportation Master Plan Final Report submittal
- Early 2020: City Council consideration for approval of Transportation Master Plan



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KeepChandlerMoving.com



City of Chandler Transportation Master Plan
Transportation Commission Meeting
December 18, 2018
5:30pm – 7:30pm

Meeting Notes

Deron Lozano with Valley Metro presented on the purpose and current activities for the Arizona Avenue High Capacity Transit (HCT) Alternatives Analysis (AAAA).

- The project limits are approximately a three-mile boundary around Arizona Avenue – Chandler Heights Road to the south, Gilbert Road/Cooper Road to the east, Price Road to the west, and Southern Avenue (in the Fiesta District in Mesa) to the north.
 - West Chandler is not included because this study is focused on the Arizona Avenue corridor that was identified for high capacity transit
 - West Chandler will be included in the transit discussion in the Transportation Master Plan (TMP), so it will not get left out. The TMP may even make recommendations to undertake specific HCT for specific corridors in West Chandler
 - Commission member indicated it will be important to make sure West Chandler is given an option to get to Downtown Chandler
- The project is preparing for the first phase of the analysis where the different alternative modes are identified. This will start with a public meeting in January.
 - Commission member suggested that a local circulator be included in the analysis. It will be important that circulator loops are relatively small so that they can have frequent headways (15 minutes), rather than trying to cover too much and taking too long (1 hour).
 - Suggestion of a small loop around downtown and a small loop to the Mall.
 - Commission member confirmed that these studies are working towards and in alignment with federal funding opportunities.
 - The example of the Tempe Streetcar was discussed, noting that the way Tempe approached it was to make sure the project was competitive to get federal funds for the initial three miles, which forms a backbone from which future extensions can be built.
- The project will consider the role and impacts of emerging technologies through a model that is customized for this corridor.
 - Chandler has already started to coordinate with Uber and Lyft regarding them playing a role in the City's dial-a-ride service for those with mobility needs (mainly older population)
 - Commission member expressed interest in what type of output would come out of the modeling, and it was explained that the model will help to identify trends in travel patterns and traveler decision-making processes to help identify the most cost-effective solutions for alternative transportation
 - Commission member suggested that this task should be very focused, as there is a lot of potential for scope creep
 - Commission member expressed interest in having a best practices review completed to understand what is being done in other cities in terms of emerging technology:
 - Nashville, TN is working with companies like Bird and Lime Bikes to purchase their data so that the city can have a better understanding of their impacts

City of Chandler Transportation Master Plan
Transportation Commission Meeting
December 18, 2018

- Philadelphia is a leader in automated vehicle policy, as they were the first to permit driverless Ubers
 - Commission member asked about the risks associated with the City partnering with a company like Lyft or Uber to provide City transportation services
 - It was noted that this would be something covered in a contract, and that there is already some work in progress in the Valley on this topic through the Valley Metro partnership with Lyft
 - Commission member expressed some concern about too much focus on ‘smart’ mobility, including things that require a smart phone, because not all of the population (especially the older population) has smart phones
 - They recommended that candidate alternatives in Tier 1 analysis should include alternatives for seniors that may look different from alternatives for younger generations
- There will be a robust public outreach process as part of this study and in association with the TMP to gather public input on where people want to travel and how.
 - Commission member expressed concern that processes for engaging the public may not get a sufficient sample size to make decisions for the entire population
 - Commission member suggested that to get more citizen input include Next Door (~80,000 participants), City Facebook group (65,000 members), mailers as part of water bills (both physical mail and email subscribers), and working with HOAs and other traditional neighborhoods who could outreach to their community
 - The key is making sure to have ways to engage people who might not have internet
 - Commission member suggested that the public meeting could be live broadcasted or made virtual, such as a virtual town call for a Facebook live event

Michael Grandy with Kimley-Horn presented on the status of the City’s TMP 2019 Update, what next steps are, and the types of things that the project team would like to get input on from the Transportation Commission and the public in the coming months.

- Commission member asked if the TMP would align with funding opportunities. However, it was noted that this type of plan should be pursued in an ‘unconstrained’ manner in terms of financials.
 - The recommendations will be more policy-oriented, and the City can then take them to the next level to understand implementation implications
 - Having this plan completed by next year will set the City up well to get things included in the MAG Regional Transportation Plan, which will inform the investment that will be made as part of the extension of Prop 400
- Roadway Element discussion:
 - Commission member suggested that key solutions for intersections that should be considered are two-way left turn lanes for all roadways that will be improved, and that investments that improve intersection efficiency are important
 - Commission member noted that new shared mobility devices, such as scooters, are designed for younger demographics, who have different mobility values – fewer younger residents are interested in driving and may be more interested in something like a scooter

- Commission member noted that projections are showing Chandler as an aging population, so there will actually be more demand from needs of older generations (traditional mobility and assisted mobility)
- Commission member felt that a fully-automated vehicle future is not within the 20-year planning horizon. With the speed of technology innovation and transitions, it was suggested that the plan be considered more of a 'living document' that can be revisited and updated more frequently than every 10 or 20 years (maybe every 5 years)
- Bicycle and Pedestrian Element discussion:
 - Commission member asked about safety impacts of scooters and if crashes have been shown to increase in number and severity since scooters have been released
 - Crash data is very limited at this point due to relative newness of scooters. Regulations on scooters in terms of where they can ride (sidewalk, street) is a policy decision that has not been made yet in Chandler. It was noted that ASU has banned them from campus.
 - Commission member noted that it may be important for the City to provide transportation choices that align with the desires of the younger population to try and entice them to live in Chandler (in response to finding that Chandler's population is aging because younger people are not choosing to move there). This is also true for land use and development; may consider how to attract more compact development that allows people to live without needing a car
 - Commission member emphasized the importance of making sure there is connectivity between modes, both physical connectivity and sharing of data. This could even be used to try and improve safety of bicycle and pedestrians, such as through connected vehicle applications (car knows that a scooter is in the crosswalk)
 - City of Chandler noted they are outfitting all of their intersections over the next few years to have bicycle detection
- Transit Element discussion:
 - Commission member suggested that the impacts of potential commuter rail should be considered – Where might Chandler need to provide connections to future commuter rail?
 - Commission member suggested that public outreach should provide information on commuter rail options being explored in the Valley to get public opinion on it
 - Commission member suggested a high-capacity transit solution in Chandler might not involve rail, but rather might be achieved through more frequent bus service
- Open discussion:
 - Commission member requested that the plan explore the potential role for public-private partnerships (P3s) in terms of plan implementing and funding
 - Commission member requested that the plan provide support for policy development, but not dictate policy, as things change too much, and the City should not be cornered into something that could change before it gets implemented
 - The plan should explore the role of data, both for technology and transit demand
 - Commission member expressed interested in exploring how to increase the role of pilot projects as part of transportation solutions; they allow for quick implementation and an end date so that the City can gather data and come up with the best longer-term solutions

Chandler Transportation Commission Meeting
May 15, 2019
Meeting Notes

Chandler Heights Road from Gilbert Rd to Val Vista Dr Discussion

- Currently, construction is anticipated to start in Fall 2023, however, the City submitted a BUILD grant that, if awarded, would move beginning of construction to Spring 2021
- Question on lack of bus pull outs as part of proposed design features
 - Not included in the project scope because the City's process for planning for fixed bus transit does not identify the need for a transit route along Chandler Heights Rd
 - Planning process includes considering potential funding sources and reviewing the regional plan for transit routes to see if it aligns
 - Projections for modal split are part of the MAG model that was used during the traffic analysis portion of this project, so transit was considered. The model shows very low projections for non-automobile travel along the corridor.
 - The design for this corridor should align with the vision being set in the current Transportation Master Plan (TMP) update, which is suggesting more flexible transit options in this area, rather than fixed bus transit
 - If it is determined to be necessary in the future, the City may request right-of-way (ROW) as part of future development along the corridor to construct a bus stop pad

Transportation Master Plan Discussion

TMP Plan Purpose and Goals

- The Commission asked for clarification on what is included in "operations". One goal of the TMP is to enhance Transportation Systems Management and Operations (TSMO).
 - Some examples of TSMO include:
 - Utilizing technology to make transportation facilities and operations more efficient, such as improving traffic signal timing
 - Improving scheduling and making more information available to improve bus coordination during transfers
 - Examples of 'Operations':
 - Roles/responsibilities of City staff and partner agencies
 - Transit scheduling and frequency (actual operation of bus system)
 - Traffic signal timing, roadway signing (factors that influence how a roadway operates)
- The Commission supports the goal to apply new and emerging technologies
 - Some key technologies should be micromobility (especially scooters) and automated vehicles.
 - The TMP may recognize a need for curb management in the City
 - Recommend emphasizing the purpose statement, showing that technology is not only a standalone goal, but also applies to all of the other TMP goals.
- The Commission clarified that the TMP is addressing transportation for the entire City and will not be addressing very specific transportation needs for areas like Price Road or the Chandler Fashion Center

Review of Public Outreach Findings

- The Commission asked about the age of respondents. When collecting demographic information, age of respondents was not collected; however, there was a question about how long the respondent has lived in Chandler.
- The Commission discussed how identifying age may have been helpful in contextualizing public input:
 - Because this is a long-term plan, it should acknowledge trends of the younger generation (college-age), such as that many of them are less interested in cars and are instead looking for choices in modes of transportation, not just vehicles
- The Commission asked if the survey response numbers to the survey seemed low given the City's population size and asked what is being done to make sure the perspectives of different groups within the City are being captured.
 - Based on average survey response numbers for these kinds of projects, the number of responses for this study is actually higher than normal. Input was solicited and received by a good cross-section of the community, including residents, businesses, community college, school districts, Chandler leadership, bicycle advocates, technology experts, and others
- Methods used to gather public input and advertise the survey included:
 - Three public meetings at different locations in the City
 - Mayor promoted the meetings and survey
 - Stakeholder workshop targeted at business community
 - Discussions with the technology community
 - City council members provided input
- Survey results
 - The survey did not solicit location-specific input, but the public workshops did ask specific questions about where people see issues or gaps or where they would like to go and by what modes
 - The goal is to invest in the places that people want to go in the City and make it convenient to get there
 - The mode of travel breakdown found in the survey results closely aligns with other surveys in MAG region that ask about primary modes of transportation
 - One Commissioner looked at the survey results against American Community Survey (ACS) data – 79.4% in ACS say they use a car as a primary mode, and this number is 90% in Chandler)
 - The reason 92% of respondents indicated they use vehicles as their primary mode is likely because of convenience – we need to make other modes more convenient and people might use them more
 - What mode should the City invest in?
 - People see the benefit of the community having transit be more available
 - People may want to get out of their car and into transit
 - The road network is largely built out and there may not be much investment possible for the roadway network
 - The Commission would like to have seen a survey question about environmental considerations when choosing the mode of travel

- Electric vehicles are more interesting to younger people and they may be willing to pay more for that type of travel
- The Commission provided the following input regarding the survey finding that 30% of respondents said automated vehicles are how they will travel in 20 years and 25% said personal auto:
 - Concern that the identification of automated vehicles by respondents is a result of how visible the automated vehicle world is right now, but it may not be realistic. Also, they are really just another means to connect between traffic lights, but are not necessarily considering mobility
 - Maybe we should not even be dealing with traditional vehicles in the future, as younger generations are not as interested in buying a vehicle and instead want to use other modes like transit and be able to hop on and off things
- People are making a shift in mobility and are looking for the City to provide them an option to do acceptable mode options like transit
 - We need to get an idea of what that actually means for the City and what the City should invest in; technology will help, but will not give the clear answer as to what should be included in a CIP
 - The TMP is more of a visioning document; identifying funding to implement the vision comes later (outside of the TMP effort)
- The Commission wants to make sure that the current City planning efforts are being done in a way that allows the City to pivot quickly if needed
 - Like the concept of pivot points
 - Example of current pivot point is high-speed 5G WiFi - We don't know what that is, but we must plan for it)
 - The City does not want to be cutting edge but does want to be one step beyond 'beta'
 - Is the timeline for this TMP appropriate given the speed of change?
 - While the document considers a 20-year horizon, it is realistically updated every 10 years, and that will allow the pivot point
 - There is enough flexibility in the plan (this is a guidance document) to allow pivoting along the way

Roadway Element

- Estimated population of Chandler in 2040 is 310,000, which is effectively considered “buildout”
- Roadway ownership in relation to widening:
 - Roadways at jurisdictional borders should be clearly delineated in the TMP as to who owns and maintains the roadway (for Chandler, this is most relevant with respect to borders with Gilbert)
 - County islands that exist are likely going to remain. There is no political desire from either entity to annex:
 - Some roads where there is shared ownership with County – City prefers to manage them, and County prefers to give it to them so that generally works well
 - City developed a system of dealing with fire calls in those areas and that works acceptably (includes cost sharing)
- Questions and discussion:

- There was some concern that trying to plan 20 years out will be challenging in terms of budget. The roadway costs for widening tend to be very high so it is important that the City include transit improvements
 - The roadway buildout should not accommodate every person – need to have multiple modes
- City staff noted that there is the impending potential future sales tax extension that MAG is working on, and Chandler gets a lot of money for building roads from that; a lot of streets are paid for by the regional money
 - City has used \$110M in regional funds to date for roadways
 - When distributing regional money, MAG decision makers may prioritize investments that are documented in a MAG member agency transportation plan
- Other considerations for roadway recommendations:
 - Consider roundabout concepts when looking at intersections
 - Make sure roadway investments accommodate biking and other forms of transportation
 - Make sure roadway architecture allows for accommodating and transition to transit; do not just want to build to accommodate cars in the long-term
- City buys prescribed right-of-way (ROW) when doing widening, but the amount bought is usually more than what is used during construction, so there is usually space for other configurations in the future, including:
 - Transition a lane into a transit-only lane
 - Medians could be taken out in the future to accommodate something going down the middle
- City uses complete street design so that roadway designs always considers accommodations for pedestrians, bicycles, and transit, and associated amenities, as much as possible
- Other recommendations from the Commission:
 - The two-lane section of Ocotillo Rd east of Gilbert Rd and north coming to Queen Creek Rd currently has a lot of traffic and might be a candidate for a 6-lane cross-section
 - Ocotillo Rd is currently under design right now to increase the capacity to four lanes
 - Gilbert Road widening to six lanes is in the CIP
 - Consultant team should check the 2040 Number of Lanes map to make sure all programmed projects are captured
 - How is operations and maintenance (O&M) of facilities being handled in this section?
 - The TMP will identify need for O&M for roadways, although specific funding will not be committed as part of the TMP. The TMP should clearly identify that there will be O&M needs for the 20-year lifespan of the plan.
 - There are also discussions at the regional level about region-wide maintenance being included in the region-wide sales tax extension effort

- During any roadway reconstruction, the City should plan to install conduit where can
 - The City has been good at doing this and already has a lot of fiber capacity that can be used to transmit a lot of data
 - Freeway bridges have City fiber to allow crossing freeways
 - All BRT stations along Arizona Ave are connected via fiber
 - The City is also currently doing a Fiber Master Plan to address this need
- Is there any activity looking at 4G/5G WiFi across City?
 - Last year the City launched a partnership with Verizon to allow them to use spare conduit as backhaul for their 5G network, and in return, will give City use of it
 - These initiatives are driven by the private market. The City is willing to partner, but will likely not be taking the lead
 - This is a great example of how we can plan now for future technology that will benefit multiple modes (foundation of this TMP)

Bicycle and Pedestrian Element

- Scooters
 - There was quite a bit of variation in interest for scooters from input received at the public meetings
 - The City is not planning to operate scooters but does see the need to regulate them and make sure there are safe facilities to accommodate them
 - In general, the City needs to provide the flexibility in the transportation system to provide facilities, policies, and regulations for many types of mobility
 - Micromobility like scooters is also a topic currently being looked at in State Legislature
 - The TMP will not detail out specific facilities/policies/regulations, but will recommend strategies to support planning for flexibility
 - For example, the City may need to think about how to use right-of-way to better accommodate scooter parking in the future
- Specific strategies discussed:
 - Separated bike lanes are a new concept for the City
 - The proposed installation of separated bike lanes on Frye Road will be a good test for separated bike lanes because the separated bike lanes will connect Downtown, Consolidated Canal, and some schools, and the facility is not as high volume as roads like Arizona Avenue
 - What can the City do to better connect bike facilities with transit facilities?
 - The idea is to allow people to use their bike to get to a transit station, get off their bike and store it securely, and then get on transit and go
 - Could also include traveler comfort enhancements at the transfer point, like shade, coffee, or retail stores – the goal is to entice people to be there and make it convenient (this is known as a mobility hub)
 - The Commission suggested that creating the small connections to existing trail systems (in the south and the Kyrene Canal in the northwest) should be near- or mid-term recommendations, not long-term recommendations

- They seem to be much easier to complete than some of the other long-term recommendations, so why wait?
 - The Commission asked if there is consideration for using overpasses to provide safe active transportation crossings instead of just signaling
 - That type of grade-separated treatment has been considered, and it is always on the table, but the costs are very high, so the first attempt to provide safe crossings will generally be using a signal, then other options will be looked at if that does not work
 - There is one proposed grade-separated bike/ped bridge across Loop 101 north of Ray Road
- The Commission noted that this bicycle and pedestrian section is really a combination of bicycle, pedestrian, scooter, and other non-vehicular modes of travel
 - The TMP should mention that all of these ‘non-vehicular’ modes should all work together
 - “Active transportation” is more of the emerging terminology being used – consider renaming this element of the TMP to be the Active Transportation Element
- Key takeaway
 - Emphasize connectivity between all modes (connecting “ecosystems”)
 - Create flexibility between modes to allow for easy connections

Transit Element

- Initial thoughts and reactions from the City to public input
 - Many people may not have a good idea of what the concept of commuter rail entails
 - The concept of shared micro-transit may not have ranked that high during survey voting because it may be hard for people to understand and imagine
 - There are not example deployments of micro/flexible-transit, and there are only a few pilot projects in the U.S. that are being explored
 - The goal for micro-transit is to take people to a higher capacity fixed route service, not to be the means of completing the whole trip
- Flexible transit services
 - The City has a good opportunity to partner with major employers (e.g., Intel) to look into a commuter shuttle program that is employer sponsored
 - This type of partnership is a good way to shared costs, but the instinct is that the City will have to start the program as proof of concept and then employers can buy into it
 - Bus pull-outs may be good collection points for riders
 - Policies associated with it will be a huge part of it (e.g., operating only at certain times)
 - The TMP will recommend the concept of flexible transit and will provide some level of guidance, but there will need to be more studies done to understand the right type of service (hours, routes, frequency, type of vehicle) based on the service locations
 - Service areas need to be flexible based on what people need – start with a pilot, but may need to expand/change service areas over time

- Price Road corridor will be a good pilot because of its high density of employers within a relatively compact space. Businesses are already interested in helping move people around the corridor without their car
- Technology will play an important role in making this type of transit work
- Will need to be dictated by what the public wants, not just how the City or consultants envision it
 - Some areas of City will prioritize local travel, where others may demand regional travel – need to provide flexibility to identify need of each identified route over time and adjust as needed
 - The proposed locations for flexible transit were identified based on the data collected through the TMP and the identified growth areas in Chandler.
 - Also considered trends seen in the region related to transit ridership behavior – looked at neighborhood circulator programs already in place in places like Mesa and Tempe to see who is riding and where they are most frequently going
 - The goal of the flexible service is not to make it an on-demand service – need to make sure the service areas are not too large that it ends up taking too long to get to the desired destination
 - Impacts of flexible transit may lead to adjustments in fixed route services as well
- Commission members expressed interest in exploring options for transit-oriented development opportunities at transit stops
- Commission members noted that Chandler imports employees and shoppers, so transit options need to create connections for these types of travelers too
 - Projections are that Chandler will import more and more people and it will be important to make sure we are putting things in place to help avoid adding all those people on the road
- Future flexible transit service areas are proposed in southern Chandler where there are much lower densities – this service will look very different from what is envisioned along the Price Road corridor.
 - It will be more cost efficient to start with a small service and provide a first-mile subsidy in this area to allow for data gathering. Then, over time, adjustments can be made to make sure there is the best return on investment possible
 - Needs change over time as growth and development occurs, so some services will need to be updated over time based on observed changes
- Takeaway #1 – the City needs to position itself to be flexible and facilitate the development of transit, but it will not be the role of the City to develop/implement it all
 - The City does not have all of the tools to do it most efficiently right now and will require a lot of partners. But it should be the City's and Valley Metro's role to take the first steps to get something in place and do the best they can, and then let people/industry jump on board and partner

Chandler Transportation Commission Meeting
November 6, 2019
Meeting Notes

Transportation Master Plan Discussion

Survey Final Results

- The Commission asked how the public was notified of the survey.
 - The public information process began at the onset of the project through a variety of methods:
 - Reached out to those who had contacted the City in the past
 - Public meetings were held – two rounds
 - Website was established
 - Reached out to business groups throughout the City
- The Commission asked if the mode that the public would want to invest in second-most was transit.
 - Bicycle/scooter was the mode that the public ranked to be invested in second-most with transit only 3% behind bicycle/scooter.
 - Automobile is still ranking high for future investment, but much less than is currently being used today.
 - The desire for personalized vehicles is trending down with the advent and adoption of rideshare (shared automobiles) and scooter/bike share in recent years.
- The Commission noted that survey respondents anticipated the percentage of trips by rideshare to increase in the future.
 - Traveling is becoming more social in nature rather than individualized and people are seeming ok with that concept.

Review of Roadway Recommendations

- The Commission was provided an explanation about the difference between Level of Service (LOS) E and LOS F.
 - LOS E approaches capacity while LOS F is at or over capacity.
 - Design goal for these roadway recommendations was that the roadway would not exceed LOS D in the year 2040 based on traffic projections.
 - There are some areas where the City made the decision that LOS E or LOS F is acceptable – an example of this is on Arizona Avenue between Pecos Road and Ray Road where it is likely not feasible or desirable to widen the roadway through downtown Chandler to accommodate additional vehicles. This segment of roadway is already nearing capacity. The other locations where LOS E is considered acceptable are segments of Dobson Road and Alma School Road where right-of-way is very constrained.
- The Commission mentioned that there are not many striping/markings on Hunt Highway and there is no sign for the Cooper Road intersection.
 - Improvements are listed in the bicycle/pedestrian recommendations that work toward controlling speed and improving safety on Hunt Highway and on Riggs Road as well.
- The Commission asked if the recommended improvements through 2040 in this TMP will get the City to LOS D maximum in the City, except for the downtown area.

- Yes, these recommendations are designed to provide LOS D or better operation by 2040 except for the downtown area and segments of Dobson Road and Alma School Road.
- The Commission asked if these TMP recommendations position the City for federal and other types of funding.
 - The timing of this TMP update has been intentional to strategically position the City with recommendations that could potentially be incorporated in the next iteration of the regional funding proposition to support transportation.
- The Commission asked if recommendations for widening roadways also include bicycle/pedestrian improvements such as bike lanes or crossings.
 - Striping bike lanes is included in all roadway widening projects as a City standard.
 - The City does not have a formal complete streets policy, but the City's standard arterial roadway cross-section effectively creates a complete street that serves all modes of travel.
 - The City's scooter pilot program, if successful, will be incorporated into the roadway improvements recommended in this TMP, where appropriate, as they are designed and implemented.
- The Commission asked if the recommendations in this TMP will take the City to full buildout.
 - The roadway recommendations are anticipated to take the City to full buildout, which is expected to effectively occur by 2040.
 - Growth is factored in using the most recent MAG regional model that projects traffic volumes in 2040 based on projected population and employment conditions in 2040.

Review of Bicycle and Pedestrian Recommendations

- The Commission asked about the feasibility of working with the Union Pacific Railroad (UPRR) in the near-term to potentially fast-track or move forward the shared-use path recommendation from the long-term to something sooner.
 - It is recommended in the TMP that the City initiate discussions with UPRR in the near-term as it is recognized that UPRR coordination can take time.
 - It will depend on how amenable UPRR is to the proposed shared use path before it can be determined if there is a possibility to move this project sooner than the long-term.
 - It should be noted that there are already several other shared use path projects proposed in the mid-term and near-term, so the feasibility of moving the shared use path along the railroad up in the implementation schedule, if approved by UPRR, would need to be evaluated at that time based on available funding and could lead to the City needing to re-prioritize TMP recommendations.
- The Commission asked what a shared-use path looks like on Loop 202 and if it will be completely separated from traffic.
 - The path itself would likely be a 10-foot or 12-foot paved segment (wide sidewalk) with potentially unpaved space next to the paved section. Other amenities such as lighting or shade trees could potentially be included, depending on funding availability.
 - The path would be set back behind Loop 202 fencing and would be completely separated from traffic.
- The Commission asked about the potential for completing the Paseo Trail/Consolidated Canal Path near Arizona Avenue south of Riggs Road in an earlier timeframe.

- This recommendation would need to be a joint City/County project, so it was intentionally placed in the mid-term to provide time for interjurisdictional coordination.
- The Commission asked if the shared use path along Price Road would connect to the mall and the Chandler Transit Center there.
 - There are bike lanes that provide a connection from Price Road/Loop 202 to the mall area. An off-street connection could be evaluated during the design of the project.

Review of Transit Recommendations

- The Commission asked if Arizona State University (ASU) has an Olli autonomous microtransit system in place.
 - Not as of yet, but it is something that ASU and other campus environments are looking at for potential implementation as the technology improves.
- The Commission discussed the need to consider a transit stop near Loop 202 and Loop 101 for commuters to get to Tempe/Phoenix.
 - There is already an express bus route that travels from the Chandler park-and-ride to downtown Phoenix.
 - There are already north-south bus routes in the City of Chandler that take riders to the light rail system in Tempe, from which riders can get to downtown Tempe or Phoenix.
 - The new express route being suggested between Chandler and Tempe could potentially stop at Main Street and Loop 101 to let travelers connect to light rail to travel to downtown Phoenix, but it would increase the express route travel time. Many express bus riders choose that mode of travel because of the direct connection to their destination as opposed to transferring modes of travel during their route.
- The Commission asked about more detail of the Arizona Avenue Alternatives Analysis (AAAA) study being completed right now.
 - The study is looking at high capacity transit alternatives along Arizona Avenue, with Rural Road and Price Road also being considered.
 - The site selection for the proposed Transit Center will be informed by the results of the AAAA study.
- The Commission asked about the Route 96 transit service and where the service is within the recommendations.
 - Because of the recommendation of the microtransit study in that area, the Route 96 bus service south of Pecos Road is envisioned being replaced by the new flexible transit service in that area.
 - Snedigar Park may become a parking location for some users of the flexible transit service area, however it is not anticipated to become a formal park-and-ride lot.
- The Commission asked about Route 156 and if it is intended to be abandoned and if an ASU shuttle service between the Tempe and Polytechnic campuses was considered.
 - If high capacity transit is ultimately implemented along Chandler Boulevard, it would likely replace Route 156, which is along the same alignment. Connections already exist that allow travelers to go between the ASU Tempe and Polytechnic campuses with a transfer between routes.
- The Commission brought up the challenges with transit transfers and payment of multiple trips from different services.

- Valley Metro is developing an application that would create a one-stop-shop for a traveler to pay once and travel from origin to destination using a variety of modes that are pre-booked using the application. This is under development right now and is anticipated to solve this transfer issue.

Review of Leveraging Technology Recommendations

- The Commission asked if the “experts” are truly experts in their field or focused on local applications.
 - The “experts” chosen for the interviews are true leaders in their field of application (e.g., Waymo, Lyft, microtransit providers) and that is why their input was valuable to the development of this TMP.
- The Commission asked if the TMP envisions issues with compatibility of technology down the road as technology changes quickly.
 - The TMP recognizes the speed of technological advances and because of that is agile in its approach toward implementation to make sure the City is focused on the “people moving” as opposed to “vehicular moving” and to respond to that call with appropriate technologies of the time. Operations and maintenance costs account for periodic upgrades to technology to maintain compatibility.
 - The City envisions that the proposed ITS Strategic Plan will identify funding opportunities and recommend sustainable technological solutions that allow the City to maintain functions with the use of new plug-and-play equipment.
- The Commission recognizes that the term “ITS” covers many layers including public-private partnerships, modal transportation, businesses, and technology.

General

- One member of the public, Dean Brennan, provided comments during the Transportation Commission meeting. He indicated he did not agree with the recommendation to make major arterial capacity improvements to Elliot Road because he did not think traffic volumes would grow to the levels projected by the MAG regional model. He suggested a better use of funds would be providing separated or buffered pedestrian and bicycle facilities along Elliot Road and other locations where existing pedestrian and bicycle facilities are narrow and adjacent to travel lanes. The City indicated the TMP roadway recommendations are based on the most currently approved MAG regional model and clarified that additional, more detailed, studies and design analysis would be completed in the future to confirm/refine needed improvements before any improvements would be constructed on Elliot Road or any other road in the City.
- The Commission discussed how the recommendations are additional builds that create more infrastructure and questioned if maintenance of existing roads is accounted for in the TMP.
 - The funding requirements of maintaining what the City already has in place is substantial and is captured in the TMP already on page 73 of the Draft Final Report for road maintenance specifically. Operations and maintenance costs are discussed within each modal element within the TMP and are summarized in the table of costs in the Executive Summary.
 - The City recently completed an assessment of pavement condition for every street in the City, which has informed the prioritization of work involved in maintenance of the roads.

- The Commission recommended that the City’s Budget group be briefed on the funding requirements of the TMP and invited to attend the City Council briefing on the TMP to discuss the budget implications of the TMP recommendations and the increased costs of maintenance over time.
- The Commission recommended that the TMP include language of how the TMP will live on and not need to be updated every year because public sentiment or costs or staff change over time – this concept has already been incorporated into the TMP.
- The Commission discussed how this is a visioning document, not a design or implementation document, and more detail on specific improvements will be flushed out during further studies and design activities. Because this is a visioning document, the Commission discussed being comfortable with its proposed recommendations as-is. The Commission members asked to be involved in a review of the materials being presented to City Council related to the TMP as they expect the maintenance question will come up.

Next Steps

- The Commission members unanimously approved the TMP as-is for consideration of approval and adoption by the City Council.
- As a separate matter from the TMP, the Commission requested additional information about City maintenance costs be presented in a future Transportation Commission meeting.
- The TMP Final Report is anticipated to be submitted in late 2019 and will include all public survey and comments within appendices.
- The TMP Final Report will be briefed to the City Council prior to the request for adoption and the briefing materials can be distributed to the Transportation Commission prior to the briefing for review upon request of the Transportation Commission.
- In early 2020, the TMP is anticipated to be presented to City Council for consideration for approval and adoption of the TMP.