

# Lone Tree Corridor and John Wesley Powell Capital Planning

April 7, 2020





# Lone Tree/John Wesley Powell

## Presentation Outline

- I. Introduction
- II. Citizens Transportation Tax Commission Overview
- III. Traffic Modeling Results
- IV. Proposed Transportation Capital Improvement Program FY 20-21
  - a. 5-year CIP
  - b. Lone Tree Status
  - c. John Wesley Powell Status



# Lone Tree/John Wesley Powell



## Presenters

- Dan Folke, Community Development Director
- Dave Wessel, Metro Plan Transportation Manager
- Bret Petersen, Capital Improvements Engineer



# Lone Tree/John Wesley Powell

## Introduction

What is the appropriate timing of completing improvements to the Lone Tree corridor and John Wesley Powell extension?

If funding for a new interchange at Lone Tree and I-40 is not secured, how does that impact this discussion?

How will these roads function without a Lone Tree interchange?



# Lone Tree/John Wesley Powell

## Ballot Measures 419 & 420

	Ballot Measure	Ballot Measure
PROJECT NAME	420	419
Lone Tree Railroad Overpass	\$ 72,392,000	
Lone Tree Bridge Bond		
Lone Tree - Butler to Pine Knoll		\$ 13,468,000
Lone Tree - Pine Knoll to Powell		\$ 20,037,000
JWP_Airport		\$ 14,502,000
4th Street Ext. 1 & 2 @ 40%		\$ 8,706,400
J W Powell Ext 1 & 2 @ 40%		\$ 9,466,400



# Lone Tree/John Wesley Powell

- Proposition 420 funds the Lone Tree Overpass (30% plans complete)
- Proposition 419 funds Lone Tree Road improvements (15% plans complete for portions of the corridor as identified in the Lone Tree Corridor Study)
- Proposition 419 funds 100% John Wesley Powell Blvd., Airport to Lake Mary Road
- Proposition 419 funds 40% of John Wesley Powell, Pine Canyon to South Fourth Street (Conceptual Plans in design)



# Capital Improvement Program

- 20-year tax delivered through the Capital Improvement Program
- Delivered in 5-year increments
- Projects typically span multiple years
- Program Year 1 is approved and programmed
- Program Years 2-5 are planned, can be adjusted by Council with the adoption of each Annual Budget and Financial Plan



# Capital Improvement Program

## Considerations in developing the Capital Improvement Program

- Project need - roadway level of service and condition
- Project readiness
- Available funding – revenue stream
- Partner Funding



# Capital Improvement Program

## Questions ?

- Up Next - Citizens Transportation Tax Commission Recommendations
- Traffic model results



# Citizens Commission

## Tax Commission Overview

- 15 Council-appointed members
- 8 meetings over 8 months
  - Four rounds of rankings
- All meetings advertised
- Public comment period at all meetings
- Support by City Capital, Traffic Engineering, Public Works, NAIPTA, and FMPO including multi-modal perspectives
- NOTE: No recommendation on sequence or programming



# Tax Commission Overview

CITIZENS' TRANSPORTATION TAX COMMISSION 2018					
PROJECT NAME	Proposal A			Proposal B	
	TRANSIT	LONE TREE BRIDGE	CONGESTION RELIEF	TRANSIT	CONGESTION RELIEF
Transit - Increase Frequency	\$ 33,900,000			\$ 33,900,000	
Transit - Capital	\$ 16,800,000			\$ 16,800,000	
Lone Tree Rail Road Bridge		\$ 72,392,000			\$ 72,392,000
Lone Tree Bridge Bond					
Lone Tree - Butler to Pine Knoll			\$ 13,468,000		\$ 13,468,000
Lone Tree - Pine Knoll to Powell			\$ 20,037,000		\$ 20,037,000
JWP_Airport			\$ 14,502,000		\$ 14,502,000
Pedestrian and Bicycle Improvements			\$ 29,000,000		\$ 29,000,000
W. Route 66 - Flag Ranch to Milton			\$ 10,800,000		\$ 10,800,000
Butler widening			\$ 7,840,000		\$ 7,840,000
Neighborhood plans (5 plans)			\$ 1,250,000		\$ 1,250,000
General Improvements & Partnering Opportunity			\$ 15,000,000		\$ 15,000,000
Existing program shortfall			\$ 2,000,000		\$ 2,000,000
Traffic Signal and Advanced Traffic Management			\$ 3,500,000		\$ 3,500,000
Street Lighting (Dark Skies)			\$ 8,000,000		\$ 8,000,000
4th Street Ext. 1 & 2 @ 40%			\$ 8,706,400		\$ 8,706,400
J W Powell Ext 1 & 2 @ 40%			\$ 9,466,400		\$ 9,466,400
<b>TOTAL Base Project Cost Estimate</b>	<b>\$50,700,000</b>	<b>\$72,392,000</b>	<b>\$ 143,569,800</b>	<b>\$50,700,000</b>	<b>\$ 215,961,800</b>
<b>Inflation Estimate</b>	<b>\$5,070,000</b>	<b>\$7,239,200</b>	<b>\$ 14,356,980</b>	<b>\$5,070,000</b>	<b>\$ 21,596,180</b>
<b>TOTAL Cost with Inflation</b>	<b>\$55,770,000</b>	<b>\$79,631,200</b>	<b>\$ 157,926,780</b>	<b>\$55,770,000</b>	<b>\$ 237,557,980</b>
<b>Needed Tax Rate</b>	<b>0.150</b>	<b>0.220</b>	<b>0.426</b>	<b>0.150</b>	<b>0.650</b>



# Lone Tree/John Wesley Powell

## Election 2018 Information Packet – New Streets

- If Proposition 419 is approved, approximately \$61 million is proposed to be spent on new streets, and \$96 million to be spent on street widening projects. Private funding is expected to pay a significant portion of the cost of John Wesley Powell Boulevard and Fourth Street between Lone Tree Road and Butler Avenue (considered a "new street"). It is also expected that the City will negotiate with private partners along these corridors for partial funding of other public improvements along and near those corridors, such as parks, fire stations, and police stations.



# Lone Tree/John Wesley Powell

## Lone Tree Road Model Results

2015 (base network only) 12,100 vehicles per day

2015 (base+widening) 16,600 vehicles per day

If built "today", 4,500 vehicles will switch to Lone Tree

2040 (base network only) 18,300 vehicles per day

2040 (base+widening) 29,700 vehicles per day

If built in 2040, 11,400 vehicles will switch to Lone Tree

- Assumes the Lone Tree Railroad Overpass is built and the Interchange is NOT



# Lone Tree/John Wesley Powell

## J.W. Powell Blvd Model Results

2015	(base network only)	0 vehicles per day
2015	(base+Fourth to Lone Tree)	1,000 vehicles per day
2040	(base network only)	0 vehicles per day
2040	(base+Fourth to Lone Tree)	7,500 vehicles per day



# Lone Tree/John Wesley Powell

## Project Performance in Corridor Context

Table 12-4 Full Corridor vs. Project Phase, Comparison of Congestion Impacts

Corridor and Projects	Congestion Score	
	Whole Corridor	Sum of Parts
Lone Tree Corridor- complete (Widening, Traffic Interchange and Bridge)	28,627	22,688
Lone Tree Corridor without Interchange	25,459	17,895
Lone Tree Corridor without Bridge	21,128	19,286
J.W. Powell Boulevard (Connections to 4 <sup>th</sup> Street and Airport)	20,843	12,207
J.W. Powell Boulevard without Airport	19,269	9,970

“Score” combines region-wide impacts to vehicle miles travelled and vehicle hours of delay for present and future conditions. Impacts to present conditions are weighted heavier in the scoring. Higher is better.

“Whole” models all project parts together. “Sum” adds scores from projects modelled individually.



# Lone Tree/John Wesley Powell

## Model Results Comparison

### CONCLUSION:

1. Lone Tree Road widening provides utility or usefulness to more of the motoring public than J.W. Powell today and in the future.
2. Traffic shifting to Lone Tree comes from Lake Mary, Milton, and Northern Arizona University

### CAVEATS:

1. Much of the future growth that would use Lone Tree cannot access or will have difficulty accessing Lone Tree without J.W. Powell Boulevard.
2. Growth along J.W. Powell will push Lone Tree over capacity in short order if Lone Tree is not widened.



# Lone Tree/John Wesley Powell



Questions ?

Up Next: Proposed 5-year Transportation Capital Improvement Program

Lone Tree and John Wesley Powell Status



# FY 2020-21 Five Year Transportation CIP



- Fourth Street Reconstruction
- Butler Avenue Widening
- Lone Tree – Butler to Pine Knoll (2023-24)
- JWP – Airport to Lake Mary Road (2024-25)
- Country Club/Oakmont Intersection
- West Route 66 intersection
- Dark Sky Lighting (streetlights)
- Lockett/Fourth Roundabout
- Quiet Zone Modifications
- FUTS and Sidewalk Improvements



# Lone Tree/John Wesley Powell



## Lone Tree Corridor Project Status

- Lone Tree Corridor Study (15% plans)
  - Council adopted as Specific Plan 2006
  - MetroPlan scoping results provided to City
- Lone Tree Overpass Study (30% plans)
  - Council amended Specific Plan 2010
  - Design scoping discussions underway



# Lone Tree/John Wesley Powell

## J.W. Powell Boulevard Status

- Preliminary engineering effort underway
  - Peak Engineering, estimated completion 2021
- Planning effort to follow
  - Specific Plan adoption process
  - Can be included in Regional Plan update beginning in 2022
- Canyon del Rio delivery
  - Fourth Street through CDR represents the eastern terminus of the JWP easterly corridor extension



# Lone Tree/John Wesley Powell

## Conclusions

- Elements of both projects are advancing
- Design & Construction is beyond the current 5-Year Program
- Information provided in preparation for FY2021 Budget Retreat later this month



# Lone Tree/John Wesley Powell



**DISCUSSION?**