



# FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION

CITY OF FLAGSTAFF ♦ COCONINO COUNTY ♦ ARIZONA DOT

Office: 211 West Aspen Avenue ♦ Flagstaff, Arizona 86001

Phone: (928) 213-2651

[www.flagstaffmpo.org](http://www.flagstaffmpo.org) ♦ [mpo@flagstaffaz.gov](mailto:mpo@flagstaffaz.gov)

## Agenda Technical Advisory Committee 1:30 p.m. February 7, 2019

### Bright Angel Conference Room

Coconino County Human Resources Building  
420 N San Francisco Street, Flagstaff, AZ 86001

Regular meetings and work sessions are open to the public. Persons with a disability may request a reasonable accommodation by contacting the Coconino County Human Resources Department at 928-679-7100. The FMPO complies with Title VI of the Civil Rights Act of 1964 to involve and assist underrepresented and underserved populations (age, gender, color, income status, race, national origin and LEP – Limited English Proficiency.) Requests should be made by contacting the FMPO at 928-213-2651 as early as possible to allow time to arrange the accommodation. ***A quorum of the FMPO Executive Board may be present.***

### CALL TO ORDER / ROLL CALL: COMMITTEE MEMBERS

Anne Dunno, Chair, NAIPTA Capital Program Manager  
Nate Reisner, Vice Chair, ADOT North Central District Development Engineer  
(for Audra Merrick, ADOT Flagstaff District Engineer)  
John Wennes, ADOT Transportation Planner  
Rick Barrett, City of Flagstaff Engineer  
Jay Christelman, Coconino County Development Services Director  
Dan Folke, City of Flagstaff Development Services Director  
Christopher Tressler, Coconino County Engineer (for Lucinda Andreani, Public Works Director)  
Jeff Bauman, City of Flagstaff Transportation Manager

### FMPO STAFF

David Wessel, FMPO Manager  
Martin Ince, Multimodal Planner

### I. PRELIMINARY GENERAL BUSINESS

#### A. PUBLIC COMMENT

*(At this time, any member of the public may address the Committee on any subject within their jurisdiction that is not scheduled before the Committee on that day. Due to Open Meeting Laws, the Committee cannot discuss or act on items presented during this portion of the agenda. To address an item that is on the agenda, please wait for the Chair to call for Public Comment at the time the item is heard.)*

#### B. ANNOUNCEMENTS

*(Reconsiderations, Changes to the Agenda, and other Preliminary Announcements)*

#### C. APPROVAL of MINUTES

##### 1) Meeting of January 3, 2019

**(Pg. 5-8)**

**II. OLD BUSINESS (Continued, postponed, and tabled items.)**

**1. FMPO TIP Project Status (no handout)**

**FMPO Staff:** David Wessel, Manager  
**REQUESTED ACTION:** Discussion and Possible Action

Project sponsors will provide a progress update on their respective projects.

**RECOMMENDED ACTION:** Discussion only

**2. US 180 and Milton Corridor Master Plans Update (pages 9-21)**

**FMPO Staff:** David Wessel, Manager  
**REQUESTED ACTION:** Discussion only

FMPO Staff will present updates on urban design, evaluation criteria, and recent regional model runs for US 180 and Milton Road. ADOT members of the TAC will update the Committee on corridor master plan status.

**RECOMMENDED ACTION:** Discussion only

**III. NEW BUSINESS**

**1. FY 2020-FY2024 Transportation Improvement Program (TIP) Call for Projects (no handout)**

**FMPO Staff:** David Wessel, Manager  
**REQUESTED ACTION:** Discussion and Possible Action

Staff recommends issuing the Call for Projects for the annual TIP update.

**RECOMMENDED ACTION:** Issue the Call for Projects

**2. Regional Transportation Plan (RTP) Project Implementation Priorities (pages 22-27)**

**FMPO Staff:** David Wessel, Manager  
**REQUESTED ACTION:** Discussion and Possible Action

Staff will ask the Executive Board to set priorities from the RTP for pursuit of funding and implementation and seeks input and possible recommendations from the TAC.

**RECOMMENDED ACTION:** Discussion only

**3. FY 2020 Unified Planning Work Program Development (pages 28-31)**

**FMPO Staff:** David Wessel, Manager  
**REQUESTED ACTION:** Discussion and Possible Action

Staff will initiate discussion on potential UPWP initiatives for the next two years.

**RECOMMENDED ACTION:** Discussion only

**4. Highway Safety Improvement Program (HSIP) Grant Opportunity (pages 32-34)**

**FMPO Staff:** David Wessel, Manager  
**REQUESTED ACTION:** Discussion and Possible Action

Staff will introduce and seek prospective projects for grant application.

**RECOMMENDED ACTION:** Discussion and Direction

**5. ADOT Functional Classification Rebalancing Effort (pages 35-36)**

**FMPO Staff:** David Wessel, Manager  
**REQUESTED ACTION:** Discussion and Possible Action

Staff will present the final recommendations from ADOT and seek adoption by the TAC.

**RECOMMENDED ACTION:** Adopt the revised Functional Classification

**IV. CONCLUDING GENERAL BUSINESS**

- 1. Working Calendar**
- 2. Items from TAC Members**
- 3. REPORTS**
- Staff Report

**(no handout)**

**4. ANNOUNCEMENTS**

*(Informal Announcements, Future Agenda Items, and Next Meeting Date)*

TAC	March 7, 2019 1:30 p.m. Flagstaff City Council Chambers
Management Committee	As needed
Executive Board	March 6, 2019 10:30 a.m. Flagstaff City Council Chambers

*The Transportation Improvement Program (TIP) includes Northern Arizona Intergovernmental Public Transportation Authority final program of projects for section 5307 funding under the Federal Transit Administration, unless amended. Public notice procedures for the TIP also satisfies FTA public notice requirements for the final program of projects.*

**CERTIFICATION OF POSTING OF NOTICE**

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on February 4, 2019 at 11:00 a.m. in accordance with the statement filed by the Recording Secretary with the City Clerk.

Dated this 4th Day of February 2019.

By: \_\_\_\_\_

Flagstaff Metropolitan Planning Organization  
Rita Severson, Flagstaff Community Development, Administrative Lead

**ADJOURNMENT**

## FMPO Funding Sources & Eligible Uses Matrix

Prepared February 2019

Confidence or Probability Level ★ High ★ Medium ★ Low

Annual Funding									
				Eligible Uses					
Source	Program	Abbreviation	Amount	Staff	Overhead	Planning / Data	Construction	Match	Non-eligible Activity
Federal Highway Administration	Metropolitan Planning	PL	\$110,000	★	★	★			
FHWA-ADOT	State Planning & Research	SPR	\$125,000	★	★	★			
FHWA	Surface Transportation Block Grant	STBG	\$430,500	★	★	★	★		
Federal Transit Administration	Metropolitan & Statewide Planning	5305	\$36,000	★	★	★			
Local	General Funds	Local	\$27,500	★	★	★	★	★	★
In-State Competitive Grants									
				Eligible Uses					
Source	Program	Abbreviation	Range Amount	Staff	Overhead	Planning	Construction	Match	Non-eligible
FHWA	Highway Safety Improvement Program	HSIP	\$5,000,000				★		
FHWA	Alternative Program	TAP	\$1,000,000				★		
FTA-ADOT	Metropolitan & Statewide Planning	5305	\$300,000			★			
In-State Partnership Opportunity									
				Eligible Uses					
Source	Program	Abbreviation	Range Amount	Staff	Overhead	Planning	Construction	Match	Non-eligible
FHWA	Surface Transportation Block Grant	STBG, etc.	Varies				★		
National Competitive Grants									
				Eligible Uses					
Source	Program	Abbreviation	Range Amount	Staff	Overhead	Planning	Construction	Match	Non-eligible
USDOT	Better Utilizing Investment to Leverage Development	BUILD	\$1,000,000 - \$25,000,000				★		
FHWA	Infrastructure for Rebuilding America	INFRA	\$25,000,000+			★	★		
FHWA	Federal Lands Access Program	FLAP	\$250,000 - \$30,000,000			★	★		
FHWA	Advanced Transportation and Congestion Management		\$60,000,000 nationwide			★	★		
FHWA	Railway Highway Crossings Program						★		



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## Draft Minutes

### Technical Advisory Committee

**1:30 p.m. January 3, 2019**

Call in Number 1-877-820-7831 / Pass Code 364117#

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City Council Conference Room

211 W. Aspen Avenue, Flagstaff, AZ 86001

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**CALL TO ORDER / ROLL CALL:** Chair Dunno called the meeting to order at 1:40 pm.

#### COMMITTEE MEMBERS

Anne Dunno, Chair, NAIPTA Capital Program Manager **Present**

Nate Reisner, Vice Chair, ADOT North Central District Development Engineer

(for Audra Merrick, ADOT Flagstaff District Engineer) **Present (Telephonically)**

John Wennes, ADOT Transportation Planner **Present (Telephonically)**

Rick Barrett, City of Flagstaff Engineer **Absent**

Jay Christelman, Coconino County Development Services Director **Absent**

Dan Folke, City of Flagstaff Development Services Director **Present**

Christopher Tressler, Coconino County Engineer (for Lucinda Andreani, Public Works Director) **Absent**

Jeff Bauman, City of Flagstaff Transportation Manager **Absent**

#### FMPO STAFF

David Wessel, FMPO Manager **Present**

Martin Ince, Multimodal Planner **Absent**

Dusty Rhoton, FMPO Administrative Specialist Temp **Present**

#### I. PRELIMINARY GENERAL BUSINESS

##### A. PUBLIC COMMENT

There was no public comment.

##### B. ANNOUNCEMENTS

Mr. Wessel re-ordered the agenda to complete New Business prior to Old Business.

##### C. APPROVAL of MINUTES

1) Meeting of December 6, 2018

**(Pg. 4-8)**

**Motion:** Mr. Folke made a motion to approve the minutes of December 6, 2018. Mr. Reisner seconded the motion. Motion passed unanimously.

#### II. OLD BUSINESS (Continued, postponed, and tabled items.)

##### 1. FMPO TIP Project Status

**(no handout)**

**FMPO Staff:** **David Wessel, Manager**

REQUESTED ACTION: Discussion and Possible Action

Project sponsors will provide a progress update on their respective projects.

**RECOMMENDED ACTION:** **Discussion only**

Mr. Wessel remarked with winter weather, many of the TIP projects are shut down.

**2. US 180 and Milton Corridor Master Plans Update (no handout)**

**FMPO Staff:** **David Wessel, Manager**

REQUESTED ACTION: Discussion only

ADOT members of the TAC will update the Committee on corridor master plan status.

**RECOMMENDED ACTION:** **Discussion only**

Mr. Wessel provided the 180 & Milton Master Plans update, noting that Baker and AE Com were actively coordinating on model development with the FMPO providing information as well. He added that on the Urban Design aspects, the design team (*in-house specialists*) were joined by 3 private sector professionals and have laid out concepts for the south end and have January 8 scheduled for the north end and a charrette is scheduled for January 18. He continued he has done the modeling for the 180 bypass alternatives (*both take off west of Hidden Hollow & join at either Flagstaff Ranch or Woody Mountain*), he further noted there was a cross-over alternative on top of Observatory Mesa. Nicole Antonopoulos & Robert Wallace, (*the open space specialist*), for the city have been informed and Dan Gabiou has a conference call to discuss any legalities to Open Space issues. He added that at the NAIPTA/TAC today the draft implementation plan was introduced from the NAIPTA effort on 180 which is going to their board later this month. Mr. Wennes noted the wildlife call coming up on January 11, 2019. Mr. Folke asked for more clarification on NAIPTA's implementation plan to which MS. Dunno responded it was a concurrent parallel project (*separate funds*), looking at travel demand management strategies, transit and model opportunities as well as transit service opportunities other than just the infrastructure. She continued it was looking at alternative road access and Mr. Folke asked her to forward him the packet. Ms. Dunno remarked that NAIPTA is looking to kick off a BRT goals workshop at the end of January.

**3. FMPO Trip Diary Survey of Community Travel Patterns (No handout)**

**FMPO Staff:** **Martin Ince, Planner**

REQUESTED ACTION: Discussion and Possible Action

Staff will provide a brief update on the process.

**RECOMMENDED ACTION:** **Discussion only**

Mr. Wessel stated that 330 travel diaries were returned (*10% return rate*), which is down from the 13% in 2012 which is following a nationwide trend for these types of surveys. He added that unfortunately there were only 3 responses from NAU so conclusions there will be limited and he expects a draft in late January.

**4. MPO Working Calendar and Items from TAC Members (no handout)**

Mr. Wessel noted the next TAC meeting is February 7, 2019 and added it will be necessary to have TIP discussions and Work Program discussions. He added the new Executive Director will be on board January 14, 2019.

**III. NEW BUSINESS**

**1. Transportation Improvement Program Amendment  
– Transit Program**

**(no handout)**

**FMPO Staff:** **David Wessel, Manager**

REQUESTED ACTION: Discussion and Possible Action

NAIPTA will submit several recent grant awards for consideration in either the FY2017-2021 or FY2019-2023 whichever is most current pending action by the Federal Highway Administration. Award details include:

**DCC (Downtown Connection Center)** – total \$6,777,938 (80% fed/20% local) from 2017 FTA 5307/5339 Grant award for acquisition, design and construction.

**NAU Partnership projects** per 2018 FTA 5307/5339 Award, we have two projects total of \$614,750:

- NAU Milton Campus Entry Study - \$150,000 (80% fed/20% local) for feasibility study.
- NAU SBS \$464,750 (%80 fed/20% local) for final design.

**Kaspar Drive Intersection Improvement** – \$2,777,814 (80% fed/20% local) from 2018 FTA 5307/5339 Grant

Estimated breakdown:

- \$220,000: final design
- \$2,000,000: construction
- \$335,000: preliminary engineering LV Extension (including enviro)
- \$165,000: NAIPTA PM and soft cost fees
- \$57,814: TSP

**RECOMMENDED ACTION: Recommend adoption**

Chair Dunno noted the amendment to the Transportation Improvement Program and added that NAIPTA has received several grant awards and are looking to update what was in the illustrative year and move it to the current year and she distributed handouts. She continued there were four items that were in the illustrative year and not yet in the TIP Program.

1. The Kaspar Intersection (*design and construction*)
2. NAU Campus entry study (*Milton/Route 66 Partnership Project Study*)
3. NAU McConnell Drive (*Project for design–NAU/NAIPTA Partnership for SBS Transit HUB*)
4. A couple of buses for NAIPTA’s para-transit system.

She continued that the downtown connection center is already in the current year TIP. Mr. Wessel provided a brief update on the McConnell Project (*\$20K reduction*). Mr. Folke inquired about the local match coming from the transit tax which Chair Dunno acknowledged. Mr. Folke also queried if the Route 66/Kaspar was where Route 66 comes off from 89 (*4<sup>th</sup> leg connecting to Kaspar as an extension*) which Mr. Wessel responded affirmatively. Chair Dunno added that this will line up with a future potential Linda Vista extension (*this funding includes some preliminary design to make sure this will in fact work out in the future*). Mr. Folke then inquired about funding the Project Manager for the Kaspar project which Ms. Dunno clarified.

**Motion:** Mr. Folke made a motion to approve this amendment to the Transportation Improvement Program. Mr. Reisner seconded the motion. Motion passed unanimously.

**IV. CONCLUDING GENERAL BUSINESS**

**1. REPORTS**

Staff Report

**(no handout)**

**2. ANNOUNCEMENTS**

*(Informal Announcements, Future Agenda Items, and Next Meeting Date)*

TAC	February 7, 2019 1:30 p.m. Flagstaff City Council Chambers
Management Committee	As needed
Executive Board	January 24, 2019 10:45 a.m. Flagstaff City Council Chambers

*The Transportation Improvement Program (TIP) includes Northern Arizona Intergovernmental Public Transportation Authority final program of projects for section 5307 funding under the Federal Transit Administration, unless amended. Public notice procedures for the TIP also satisfies FTA public notice requirements for the final program of projects.*

**ADJOURNMENT** Chair Dunno adjourned the meeting at 1:58 pm.

**CERTIFICATION OF POSTING OF NOTICE**

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on January 2, 2019 at 11:00 a.m. in accordance with the statement filed by the Recording Secretary with the City Clerk.

Dated this 2nd Day of January 2019.

By: \_\_\_\_\_

Flagstaff Metropolitan Planning Organization  
Rita Severson, Flagstaff Community Development, Administrative Lead



# FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION STAFF SUMMARY REPORT



**To:** FMPO Technical Advisory Committee  
**From:** David Wessel, FMPO Manager  
**Report Date:** January 31, 2019  
**Meeting Date:** February 7, 2019

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**Title:** ADOT Milton Road and US 180 Corridor Master Plan Updates

Recommended Actions: Discussion only

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**FMPO Mission Statement:** Leverage cooperation to maximize financial and political resources for a premier transportation system

**FMPO Vision Statement:** To create the finest transportation system in the country

## Support of Strategic Plan:

### Guiding Principles

FMPO is focused:

- Provides ambitious and credible solutions

- Strategically plans for political and financial realities and possibilities

FMPO leads regional partners:

- Provides collaborative leadership among and through its partners

FMPO leverages resources:

- Strategically leverages project champions and other plans

## DISCUSSION:

**Desired Outcome:** To raise TAC awareness of FMPO staff activity in support of the ADOT Corridor Master Plans.

## Background/History:

FMPO is a partner with ADOT and other regional agencies in the development of the Milton and US 180 Corridor Master Plans. FMPO, with approval of the partners, conducted a Milton Road urban design charrette process to better inform the CMP regarding regional objectives. FMPO conducted model runs for US 180 alternate routes and for Milton Road under different 6 lane configurations. Finally, FMPO emailed the CMP project management team regarding the partner evaluation criteria and identified opportunities for clarity, consensus and improvement.

## Key Considerations:

- **Milton Urban Design:** ADOT and its Milton Road CMP partners agreed that urban design considerations will be referenced in the CMP. FMPO agreed to manage the urban design process. A 3-hour Issues & Opportunities meeting held November 30, 2018 attracted 26 people. 21 people attended the 5-hour January 18, 2019 design charrette. A team of six design professionals met twice in the interim for a total of 4 hours to produce a base design.

The output of the exercises identifies key locations along Milton Road where attention needs to be paid to viewsheds, connectivity in support of neighborhoods and activity centers, and key intersections important to urban design.

The full notes from the Issues & Opportunities and Charrette exercises provide details on locations.

- **US 180 Model Runs:** FMPO conducted model runs on four alternatives starting north of Hidden Hollow Road on US 180 and connecting to either Wood Mountain Road or Flagstaff Ranch Road. General findings are that impacts to US 180 performance are nominal.
- **Milton Road Model Runs:** FMPO supported a methodology for applying growth factors that incorporated 2040 model runs which incorporated increases to projected growth based on current development proposals, evaluates intersections and segments along the corridors individually, and balances flows including those on side streets. FMPO recommends this methodology be replicated for the Milton 6 lane scenarios.

Three scenarios were run with 6-lanes:

- I-17 to Humphreys
- I-17 to Phoenix
- W. 66 to Mikes Pike

The resulting Milton volumes are importantly higher than the 4-lane scenario. The results from the first two are relatively similar excepting big differences between the Butler and Humphreys intersections. FMPO recommends some “back of the envelope” evaluation of the intersections to see if one scenario is preferred over the other or if an “average” or other combination technique is needed now. There are dramatic differences for the last scenario with overall Milton volumes decreasing and much traffic being shifted to the side streets and backage roads. This may be a Tier 3 model run as needed.

- **Evaluation Criteria:** ADOT invited all CMP partners to rate the evaluation criteria. FMPO is supportive of the results and seeks greater clarity and consensus around some measures and a correction to others. Clarity is needed on the Congestion category of measures because two sets of measures are similar and could lead to double counting. Intersection LOS is similar to delay. Travel time is similar to travel speed. If all partners accounted for these similarities than this issue is moot. Greater consensus, not just on the category average, but their respective values strengthens our credibility before the public and decision-makers. Specifically, comparing partner scores to each other on the ratio of congestion score to mode choice score reveals great diversity, from 0.4:1 to 6:1. Understanding these differences can help lead to consensus support for the final solution. Corrections or improvements are necessary for the benefit/cost ratio and for the environmental impacts criteria. The B/C ratio addresses only volume to capacity ratio on the benefit side. This clearly biases solutions to automobile travel as expenses incurred for

items like sidewalks are afforded no offsetting benefits. The environmental impacts incorrectly assumes that the status quo is satisfactory and cannot be improved upon by widening.

**Financial Impacts:**

- No impacts beyond staff time

**Alternatives/Consequences:**

- None offered.

**Attachments:**

- Urban Design Memo
- Model Run Results
- Evaluation Criteria Email

## MEMORANDUM

**To:** Dan Gabiou, Project Manager, ADOT Milton Road Corridor Master Plan (CMP)  
**From:** David Wessel, FMPO Manager on behalf of Milton Corridor Urban Design participants  
**Date:** January 28, 2019  
**RE:** Urban Form and Design messages for ADOT

**Purposes and Background:** ADOT and its Milton Road CMP partners agreed that urban design considerations will be referenced in the CMP. FMPO agreed to manage the urban design process. A 3-hour Issues & Opportunities meeting held November 30, 2018 attracted 26 people. 21 people attended the 5-hour January 18, 2019 design charrette. A team of six design professionals met twice in the interim for a total of 4 hours to produce a base design. This memo highlights conclusions. Full notes are also available.

**Policy Basis:** The re-design of Milton Road should support City of Flagstaff Regional Plan urban design policy. The Plan envisions Milton Road to be a commercial center connected to its surroundings, a gateway, a visual asset, a Great Street and its own walkable and distinctive place. Medians, backage roads and side streets are critical components to support circulation and safety and the connectivity required for strong urban form and design. High quality urban design on Milton will strengthen the planned Districts, Neighborhoods and Activity Centers evolving and emerging in the Corridor.

**Multimodal Travel:** The corridor must achieve a high level of multimodal accommodations along and across Milton Road. This includes frequent pedestrian and bicycle crossings of Milton with strategic under and over passes and highly visual and tactile at-grade crossings. Accommodations for advanced bicyclists should take place via bike lanes on Milton and a parallel pedestrian/bicycle corridor for average cyclists. The parallel and separate nature of the non-motorized travel corridor requires the frequent east-west crossings for cyclists to access goods and services. Backage roads were seen to support automobile travel and circulation. Car volumes and accommodation were not explicitly addressed, though there is general support for widening intersections before widening the entire road prism.

**Pedestrian Environment:** Most sections of the corridor must strive for a supportive level of Pedestrian Friendliness (see the appendix at the end of the Charrette notes for more information), particularly at these Key Intersections: University, Riordan, and W. Route 66. Mitigating very high traffic volumes and high speeds are the primary objectives. The Major elements include:

- Wide sidewalks: Minimum 7' south of Plaza and 8' north of Plaza. Exceeding of the minimum is strongly desired.
- Street trees and strong vertical elements: Street trees are preferred in a buffer zone between the curb and sidewalk. The buffer should increase in width if vertical elements are limited or not permitted or moved to outside the sidewalk.
- Landscaping and monumentation at crossings, scaled to the priority of the crossing.
- Assessment of ADOT Tier 2 Cross-Section Alternatives (#) on Pedestrian Friendliness Scale
  - Pedestrian Place: none
  - Pedestrian Supportive: #6b (low end) / #8 (prefer street trees back of sidewalk)
  - Pedestrian Tolerant: #3 (low end) / #4 (low end) / #5 (high end)
  - Pedestrian Intolerant: #6a

**Activity Centers:** Sensitivity to views withstanding, the Key Intersections should be designed with the anticipation of strong building forward urban design or possible civic space. This will serve as an

entrance for users to the activity centers anchored along the side streets and backage roads. That is where Pedestrian Place elements will be more prevalent and stronger building forward design more important. Building forward design requires a generous, pedestrian friendly environment back of curb, scaled and designed in respect to road width, traffic volume and traffic speed.

**Views:** Views to the San Francisco Peaks to be protected from Forest Meadows to University Drive. Views to Mt. Elden to be protected from University Drive and from Riordan Road to W. Route 66

**Design Concept and Elements:** The full notes from the Charrette include sketches and examples from other locales of the types of treatments attendees feel are appropriate. These are often associated with specific locations.

**“Issues & Opportunities” vs. “Charrette” Notes:** ADOT is encouraged to consider both documents to understand the entirety of process. The Charrette addressed most of the Issues and Opportunities. An effort was made to note explicitly when an idea from the Issues & Opportunities meeting was rejected. Examples of this include Roundabouts as being too large to be successfully applied and street trees at the far south end as blocking primary views. Where an Issue & Opportunity is not explicitly addressed positively or negatively through the Charrette it should still be considered to have standing.

MEMORANDUM

TO: Dan Gabiou, ADOT Project Manager

FROM: David Wessel, FMPO Manager

DATE: December 18, 2018

RE: US 180 Corridor Master Plan – US 180 Alternate Route Regional Transportation Model Runs

In support of the ADOT US 180 Corridor Master Plan, the FMPO used the regional transportation model to evaluate US 180 alternate route alternatives.

**Model Background**

Model runs were made for the base year 2015 and 2040.

The model is a 24-hour, typical weekday, fall condition model.

Alignments are made in consideration of topography, legal open space, and other ownership patterns.

No connection is made to Section 17 and the Lowell Observatory expansion.

Woody Mountain has no I-40 traffic interchange in this scenario. No other major improvements are assumed in the model.

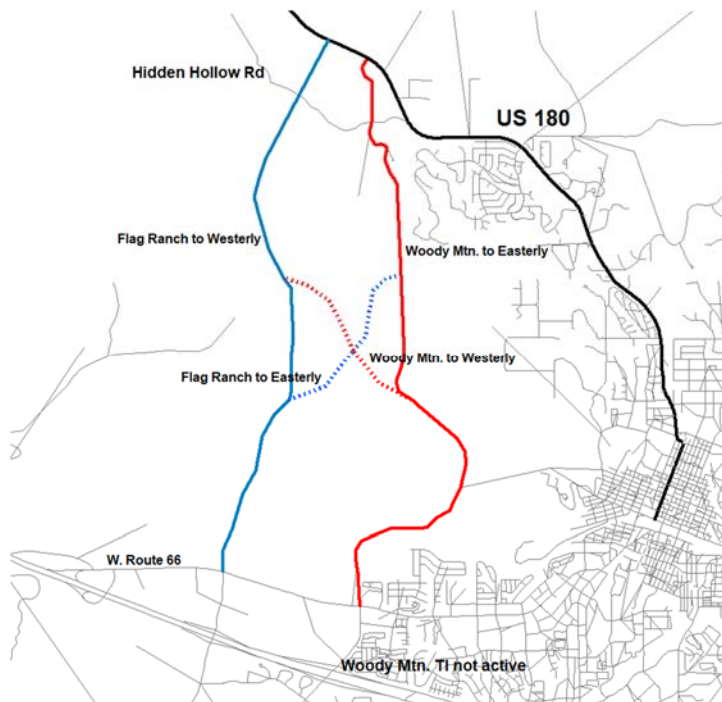
Hidden Hollow is not paved in these scenarios.

**Alternative Alignments Descriptions**

Four alternatives are considered. At the south end on W. Route 66 there are two termini one at Flagstaff Ranch Road and another at Woody Mountain Road. At the north end on US 180 there are two termini at differing points west of Hidden Hollow Road. A cross-over on top of Observatory Mesa creates the four alternatives.

All alternatives are two-lane with a 55-mile per hour speed limit.

**Observations**



In 2040 the alternate routes carry about 4000 vehicles per day. The difference in volumes on the routes or on US 180 between the alternatives is nominal. The impact on volumes is more pronounced at the north or west end than the east end.

As capacity is made available on the busier routes due to the shift in traffic to the alternate route, it is likely consumed by other travelers that had been using a less efficient route for their trip purposes.

The difference in volumes becomes more pronounced over time. Likely as Milton becomes more congested it becomes faster to take the alternate route for destinations along W. 66, west on I-40 or south on I-17.

The difference between the alternatives

and between the alternatives and the base is nominal relative to travel time change. The differences are slightly greater in the future. As buildout approaches these differences will become greater.

It appears that the easterly connections draw considerable traffic from the south (or east) and not simply an intercept for traffic from the north (or west). This has long-term implications for general circulation beyond benefits for snow play.

### **Implications for Snow Play Traffic**

For snow play conditions there are competing factors:

1. There will be a marginally higher demand for through trips that are likely to use the alternative routes. 90% of snow play trips make a stop in Flagstaff leaving only 10% to which the alternate routes might appeal.
2. Educating the snow play public that the alternate route gives them access to businesses along Milton or alternate destinations in Woodlands Village will get more people to use it.
3. If residents in Cheshire can successfully make a left turn out of the subdivision, they may learn that the alternate route is faster to these alternate destinations.

### **Criteria Suggestions for Alternate Route Decision-making**

If a decision is made to pursue an alternate route, the criteria should include in no order:

1. Environmental impacts - primarily to wildlife corridors
2. Recreational impacts - primarily to open space use on Observatory Mesa. The cross over routes are on USFS property that many rightfully perceive as part of the open space system
3. Legal possibilities - all alternates make use of a minor amount of protected open space. Is that amount minor enough to pass legal muster?
4. Emergency Services - access to snow play visitors and communities that are isolated by winter congestion
5. Long term functionality - should the uncertain future of the Woody Mountain/I-40 traffic interchange be considered? The Woody Mountain TI is planned, not programmed, as is the connection of Woody Mountain Road south of I-40 to Beulah Blvd.
6. Cost/Benefit-Cost - Getting off the mesa to the south will be very expensive. Grades will require significant cut, fill and structures to overcome. A crossing of the railroad will be needed. That cost is speculative at this point.
7. Visual impact - the roads coming down the mesa to the south will require considerable cut and fill and may be exposed to much of the community
8. Access - Does one alignment provide better access and/or circulation than another? Lowell's section 17 is one such consideration.
9. Residential impacts - the alignments were made to avoid homes and reduce the number of parcels impacted. Direct takes directly within the corridor and noise impacts to Cheshire at the north and Railroad Springs to the south should be considered.
10. Compliance with Regional Plan – Currently no alternate route is supported in the regional plan.

Tables of Model Outputs

180 and Alternate Route Volumes						
	Base 2015	Flag Ranch to East Connection	Flag Ranch to West Connection	Woody Mtn to East Connection	Woody Mtn to West Connection	
Alt Route N. of 66	na	2169	2506	2511	2141	
Alt Route S. of 180	na	1488	2611	1199	1622	
Hidden Hollow	319	870		860	25	
180 Volumes						Average change from base
E of Snowbowl	3651	3682	3703	3686	3681	1.0%
E of Hidden Hollow	4373	2910	3188	3132	3744	-34.8%
E of Fremont	10988	9149	8816	9416	9660	-18.7%
E of Meade	16158	14128	13803	14413	14758	-13.2%
W of Humphreys	11930	10407	10253	10526	10494	-14.5%
N of 66	16537	16303	16665	16378	15845	-1.5%
Beaver N of 66	6937	6753	6592	6598	7444	-1.3%
Switzer N of 66	9481	9010	9091	9500	9342	-2.7%
Milton N of I-17	25021	24378	24984	24642	24162	-2.0%



	Base 2040	Flag Ranch to East Connection	Flag Ranch to West Connection	Woody Mtn to East Connection	Woody Mtn to West Connection	
Alt Route N. of 66	na	3941	4078	4133	3566	
Alt Route S. of 180	na	2403	4257	1720	2554	
Hidden Hollow	588	1923	121	1611	122	
180 Volumes						Average change from base
E of Snowbowl	4921	4963	4988	4964	4959	1.0%
E of Hidden Hollow	6459	5443	4765	5755	5345	-21.3%
E of Fremont	12640	10290	9002	10875	10874	-23.2%
E of Meade	18783	15992	15550	16607	16740	-15.8%
W of Humphreys	11836	10075	9838	10950	9868	-16.2%
N of 66	17065	16415	17207	16403	16310	-2.9%
Beaver N of 66	9336	8620	8338	8721	8947	-7.8%
Switzer N of 66	10641	10009	10093	10509	10240	-4.2%
Milton N of I-17	41101	41051	40915	40955	40859	-0.4%

Travel Times							
2015 US 180 Travel Times						Average change from base	
AB_Time (NB)	18.07	18.07	18.07	18.07	18.07	0.0%	
BA_Time (SB)	18.07	18.07	18.07	18.07	18.07	0.0%	
Ft. Valley							
AB_Time	4.85	4.78	4.77	4.78	4.79	1.4%	
BA_Time	4.85	4.78	4.77	4.79	4.79	1.4%	
Humphreys							
AB_Time	2.01	1.92	1.97	1.91	1.94	3.7%	
BA_Time	1.78	1.78	1.8	1.8	1.77	-0.4%	
2040 US 180 Travel Times						Average change from base	
AB_Time (NB)	18.11	18.11	18.11	18.11	18.11	0.0%	
BA_Time (SB)	18.11	18.11	18.11	18.11	18.11	0.0%	
Ft. Valley							
AB_Time	5	4.84	4.81	4.87	4.87	3.1%	
BA_Time	5	4.83	4.82	4.86	4.86	3.2%	
Humphreys							
AB_Time	2.25	2.13	2.1	2.01	2.05	7.9%	
BA_Time	1.84	1.83	1.87	1.85	1.82	-0.1%	

FMPO Regional Transportation Model					
Prepared by David Wessel, FMPO Manager					
24-Jan-19	Milton Widening Scenarios for 6 lanes				
Street	X-Street 1	X-Street 2	I-17 to Beaver	I-17 to Phoenix	W.66 to Mikes Pike
Humphreys Street					
	E. Route 66	Aspen Avenue	18599	17314	17840
Milton Road					
	Sitgreaves	Phoenix	58848	46703	40640
	Butler	Rte 66	70101	68227	66570
	Rte 66	Riordan	54044	51896	42738
	Plaza	Chambers	50708	51125	41784
	Saunders	Forest Meadows	55903	56218	44566
W. Route 66					
	Blackbird	Riordan	24179	24491	28302
Butler					
	Milton	Kendrick	29178	34736	36540
Clay					
	Milton	Florence	7878	8304	4636
Riordan					
	Milton	Riordan Ranch	5238	5392	5702
Plaza					
	Milton	Yale	6153	6083	6246
Chambers Ave					
	Milton	Riordan Ranch	5386	5413	5699
University Ave					
	Woodlands	Yale	11596	12441	12588
University Drive					
	Milton	Knoles	13238	13550	14782
Yale Drive					
	Plaza	University	5449	5193	8221
Forest Meadows Street					
	University Ave	Woodlands Viilage	5777	5893	7111
McConnell Dr					
	Woodlands Villa	Beulah	3499	3382	3969
Woodlands Village Blvd					
	W. Rte 66	Plaza	21151	20832	23710
	Forest Meadow	McConnell	17925	17773	20238
	McConnell	Beulah	14049	13910	16821
Beulah - new link					
	south of University Drive		3277	3218	8879
University Drive - new link					
	Milton	Beulah	11579	12126	14057
Model is run using the modified 2040 land use data set					
Model is run on the Existing & Committed 2017 network with the exception of the different Milton configurations					
On Milton_All there is a WB third lane on E. 66 from Beaver to Humphreys					

Email from David Wessel, January 30, 2019

Good morning, Dan/Kevin

I spent time going over the returns on the evaluation criteria. I generally agree with Dan that it's a fairly solid ground for a final consensus. I do advocate for a final dialogue to improve the criteria, validate the numbers, and strengthen the consensus.

Here are my "findings" and questions.

1. There is fairly good balance in the range of partners providing the high and low scores. The USFS and COF were usually in the middle or tied with another high or low score.
2. Grouping by category and throwing out the high and low scores, the average doesn't change much for each category with a swing of less than one in everything except congestion which would raise by more than 1 (see my next comment).
3. I reiterate my concerns about the congestion measures being duplicative. "Improved LOS" is very similar to "Signal/Stop Delay" and "Travel Time" and "Travel Speed" are also similar. I'd like the group to discuss this and determine if partners divided out their scores or double counted and/or feel there is justification for all of the measures remaining.
4. I made a ratio of the partner average score for congestion to the partner average score of mode choice. The range is large from NAIPTA's .4 to Coconino County's 6. I think this comparison is worth discussing to learn about each other's perspectives and validate the individual scores. Even if the average scores don't change, I'm more comfortable going before decision makers and the public with a closer agreement among partners.
5. Regarding pedestrian and bicycle safety, I think it's worth discussing perspectives on solutions. There may be those that feel increasing pedestrian and bicycle activity levels AND making them safer is the best solution while others are more interested in reducing exposure and inadvertently limiting pedestrian and bicycle activity.
6. Regarding public acceptance, I'm curious about the means of how this will be measured, I'm more open to its lower status if we can strongly demonstrate the weighting aligns with prior public input received through other studies (FMPO scored 16 vs. the average of 8.26), and challenge myself and city staff to review the averages for all criteria against policy to see if there any glaring discrepancies. I doubt there will be given that few if any policy documents weight or compare values.
7. Regarding the B/C measure. B/C is often seen as redundant to all other criteria, so is often used as a "go / no go" tool. Used either way, the benefits should include far more than the v/c ratio. FMPO has a B/C tool that can be updated and adapted to this purpose. I would also argue that the b/c be calculated with and without right-of-way costs. Standard b/c methodologies exclude right-of-way.
8. Regarding Environmental Impacts. The measure as stated assumes that there are no environmental impacts from the current condition and assumes only negative impacts from an expanded right-of-way. This on its face is not true. Treatment of stormwater run-off could be greatly improved in an expanded right-of-way. A mode shift due to an expanded right-of-way could improve air quality. Though more difficult to assess, improved economic conditions due to increased alternate mode access and automobile circulation afforded by expanded right-of-way can offset loss to existing business. There will likely be no 4-f recreational issues in the corridor, but there may be the addition of 4-f opportunities in an expanded right-of-way. Even the protection of historic structures

comes into question as that remains somewhat out of control of the jurisdictions (see the proposed Uncommon student housing project just south of Embassy Suites that is replacing two existing hotels). I don't have a recommendation for a change at this time.

# FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION STAFF SUMMARY REPORT



**To:** FMPO Technical Advisory Committee  
**From:** David Wessel, FMPO Manager  
**Report Date:** January 31, 2019  
**Meeting Date:** February 7, 2019

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**Title:** Regional Transportation Plan project implementation priorities

Recommended Actions: Discussion only

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**FMPO Mission Statement:** Leverage cooperation to maximize financial and political resources for a premier transportation system

**FMPO Vision Statement:** To create the finest transportation system in the country

## Support of Strategic Plan:

### Guiding Principles

FMPO is focused:

- Provides ambitious and credible solutions

- Strategically plans for political and financial realities and possibilities

FMPO leads regional partners:

- Provides collaborative leadership among and through its partners

FMPO leverages resources:

- Strategically leverages project champions and other plans

Identify top 3 capital projects by...

- Getting Board adoption

- Creating clear messaging and talking points

- Creating collateral material for all members

Create a plan to fund top projects by...

- Researching available funding sources and classifying those sources as high, medium and low confidence

- Adopting a 20 year fiscally constrained regional transportation plan, i.e. high confidence, capital plan

- Adopting a 5 to 10 year “aspirational” capital plan that identifies more ambitious projects and strategies for securing competitive funding.

## DISCUSSION:

**Desired Outcome:** To gain initial TAC input on current and future regional project priorities.

### **Background/History:**

The FMPO Board identified 3 priority projects for which to seek funding: the Fourth Street Bridge; the Lone Tree Corridor; and J.W. Powell Boulevard at the Airport. Funding has been secured through the passage of propositions 419 and 420. Staff recommends updating this list and related strategies. The discussion with the Board will take place over two or more months.

### **Key Considerations:**

- **Agency:** The priorities can be independent of agency.
- **Strategy:** The TAC may find that the existing priority projects offer the best prospects for leveraging funds and recommend the Board leave them in place. The TAC may recommend a new set of priorities.
- **Status within the Regional Transportation Plan (RTP):** Projects should be identified in the RTP. RTP priority ranking may be considered secondary to other criteria such as cost, grant opportunities, and immediate need.
- **Alignment with New or Emerging Policies:** The RTP is 2-years old. In that time, the City adopted the *High Occupancy Housing Specific Plan* and the *Climate Change Action Plan*. Projects aligning with those and other recent documents might receive additional consideration.
- **Project Readiness:** Projects not supported by a plan or design are difficult to fund. This lack of support may be impetus to fund a study or design if the project is considered a priority. Alternatively, urgency may dictate projects with support be given priority.
- **Prospects for Grant Funding:** Not all RTP projects meet basic eligibility for state and federal grants. Parts of some projects may. Some RTP projects may be eligible but not be competitive.
- **Prospects for Agency or Private Partnership:** Projects for which partnership opportunities are clear and/or imminent may be considered priorities.

Attached to this report is a table comparing these projects against these key considerations.

### **Financial Impacts:**

- No impacts beyond staff time

### **Alternatives/Consequences:**

- None offered. Discussion only at this time.

### **Attachments:**

Project comparison table

FMPO Regional Transportation Plan Implementation Priority Inputs

7-Feb-19

Prepared by David Wessel, FMPO Manager

Project	Limits	RTP Rank	RTP Cost	B/C Ratio	Funding Status	Grant Prospects	Partnership Prospects	New Policies	Readiness
Milton Widening	Yale to Phoenix	1	35.6	62	0	BUILD HSIP FTA ACA	ADOT NAIPTA COF	HOH	CMP ongoing
Fourth/6th/7th Intersection	Intersection	2	5.6	121	0	FTA	NAIPTA	HOH	
Woody Mountain Road/W 66 intersection	Intersection	3	4.5	370	Private?	FTA			?
New Lone Tree Rd Realignment & TI (4)	Pine Knoll to I-40	4	63.7	19	0	BUILD	Private		DCR Partial R/W
Lone Tree Road Railroad Overpass (1)	Butler to 66	5	65.4	13	Full	BUILD	ADOT	CCAP	DCR
Lone Tree Road Widening (2)	Butler to Pine Knoll	6	9.2	23	Full	BUILD			Corridor Study
Woody Mountain Rd SW	Kiltie to Beulah	7	26.6	95	0				
Lone Tree Road Widening (3)	Pine Knoll to JWP	8	13.8	26	Full		NAU ADOT		
Butler Avenue Widening	I-40 to Sinagua	9	13.3	64	Full	BUILD	Private	CCAP	Line work
Woody Mountain Rd Airpark	Beulah to Pulliam to JWP	10	25.1	31	0		Private		
New Lone Tree Road Alignment (5)	I-40 to JWP	11	14.3	49	Private?		Private		Subdivision plan
J.W. Powell Blvd Airport	I-17 to Lake Mary	12	17.9	57	Full	FAA?	Private		Concept
W. Rte 66 Widening (3)	Woodlands to Milton	13	7.9	156	0		ADOT		Concept (FUMS)
Milton Road Upgrade	I-17 to Phoenix	14	36.9	no model	0	BUILD HSIP FTA ACA	ADOT NAIPTA COF	CCAP HOH	CMP ongoing
Fourth Street Bridge	I-40	15	7.3	126	Full	BUILD	ADOT	CCAP	Design underway
New Milton Access Road (Yale)	Yale to Riordan Ranch	16	4.2	225	0			CCAP HOH	



Riordan Ranch St Extension - S	Cul-de-Sac to University	17	4.3	458	0			CCAP HOH	
Woody Mountain Road TI @ I-40	I-40	18	51.7	16	0		ADOT		DCR
E. Rte 66 Widening (F40)	Country Club to Mall Way	19	4.8	167	0				
Fourth Street/Butler Intersection	Intersection	20	2.1	275	Partial	BUILD	Private		
Little America Collector (New)	TBD	22	21.6	53	0			HOH?	
Metz Walk Extension	66 to Riordan	23	4.6	386	0			CCAP HOH	
Fourth Street Extension - South (2)	Canyon del Rio to Rio	24	9.2	131	Private/Partial				CMP ongoing
W. Rte 66 Widening (2)	Woody Mountain to Woodlands	25	11.7	72	Private/Partial				Concept (FUMS)
Bus Rapid Transit	TBD	26		142	0	FTA		CCAP HOH	Study ongoing
Woody Mountain Collector SW (New)	TBD	27	7.6	141	0				
Herold Ranch Road Widening (1)	Butler to Activity Center	28	8.4	98	0			CCAP HOH	
McConnell Drive Extension - E (2)	San Francisco to Lone Tree	29	4.2	257	0				
Fourth Street Widening	Soliere to Butler	30	6	118	0	BUILD			
Fourth Street Extension - South (1)	Butler to Activity Center	31	7.8	131	Partial			CCAP HOH	Subdivision plan
Switzer Canyon Dr RR Underpass	66 to Butler	32	38.7	24	0	BUILD			
Fourth Street Upgrade (1)	Cedar to 7th	33	13.2	no model	0			CCAP HOH	
J.W. Powell Blvd Extension (1)	Lone Tree to New Lone Tree	34	9.4	81	Full				CMP ongoing
Fourth Street Upgrade (2)	7th to 66	35	10.8	No B/C	0			CCAP HOH	
Riordan Ranch St Extension - N	Riordan to 66	36	8.8	No B/C	0			CCAP HOH	

Lake Mary Road Widening (1)	Beulah to High Country	37	2.2	No B/C	0				
Beulah Boulevard Realignment (Ft. Tuthill)	Mt. Dell to Ft. Tuthill	38	11.1	No B/C					
Zuni Drive Extension	Lone Tree to Lone Tree (new)	39	4.4	No B/C	0		NAU		
Switzer Canyon Drive Extension South	Butler to JWP	40	22.4	No B/C	0				
Lockett widening	4th to Fanning	41	18.8	No B/C	0			CCAP HOH	
Country Club /I-40 Interchange	Intersection	42	8.6	No B/C	0				
McConnell Drive/Beulah	Intersection	43	13.6	No B/C	0				
Ponderosa Parkway RR Overpass	Butler to 66	44	44.4	No B/C	0				
Herold Ranch Road Widening (2)	Activity Center to Rio	45	11	No B/C	0			CCAP HOH	
Lockett/Linda Vista/89	Intersection	46	7.2	No B/C	Partial	FTA			DCR
Butler/I-40 Interchange	Intersection	47	10.5	No B/C	0				
I-17 Widening	I-40 to sout FMPO	48	54.4	No B/C	0	INFRA			DCR
I-40 Widening (6)	89 bypass to Winona	49	52.2	No B/C	0	INFRA			DCR
US 89 Bypass	Townsend to I-40	50	124.9	No B/C	0				
McCracken Road Connection	Blackbird to Malpais	51	5.7	No B/C	0				Specific plan
Cedar Avenue Upgrade	West to 4th	52	9.3	No B/C	0				
King Street to Postal Connection	66 to 7th	53	18.1	No B/C	0			CCAP HOH	
I-40 Widening (4)	Lone Tree to Country Club	54	32.3	No B/C	0	INFRA			DCR
Route 66 Enrichment	Humphreys to Fanning	55	19.3	No B/C	0				
Butler Avenue Extension	Section 20	56	13.6	No B/C	0		Private		
McCracken Place Extension	Kaibab to Blackbird Roost	57	5.6	No B/C	0			CCAP HOH	Specific plan

W. Rte 66 Widening (1)	Flagstaff Ranch to Woody Mtn	58	8.9	No B/C	Partial		Private		
US 180 Bypass	Hidden Hollow to Woody Mtn	59	41.9	No B/C	0				CMP ongoing
J.W. Powell Blvd Extension (2)	New Lone Tree to 4th	60	10.4	No B/C	Partial				
I-40 Widening (3)	Woody Mtn to Lone Tree	61	29.5	No B/C	0	INFRA			DCR
I-40 Widening (2)	New Lone Tree to 4th	62	21	No B/C	0	INFRA			DCR
I-40 Widening (5)	Country Club to 89 bypass	63	8.9	No B/C	0	INFRA			DCR
I-40 Widening (1)	Bellemont to A-1	64	26.5	No B/C	0	INFRA			DCR
J.W. Powell Blvd / I-17 Improvement	Intersection	65	1.5	No B/C	0				

# FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION STAFF SUMMARY REPORT



**To:** FMPO Technical Advisory Committee  
**From:** David Wessel, FMPO Manager  
**Report Date:** January 31, 2019  
**Meeting Date:** February 7, 2019

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**Title:** Unified Planning Work Program FY 2020 and 2021 Development  
Recommended Actions: Discussion only

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**FMPO Mission Statement:** Leverage cooperation to maximize financial and political resources for a premier transportation system

**FMPO Vision Statement:** To create the finest transportation system in the country

## Support of Strategic Plan:

### Guiding Principles

FMPO is focused:

- Provides ambitious and credible solutions

- Strategically plans for political and financial realities and possibilities

FMPO leads regional partners:

- Provides collaborative leadership among and through its partners

FMPO leverages resources:

- Strategically leverages project champions and other plans

## DISCUSSION:

**Desired Outcome:** To gain initial TAC input to work tasks for the FY 2020 and FY 2021 work programs.

## Background/History:

The Unified Planning Work Program sets the tasks and budget for the FMPO. ADOT is now considering a 2-year work program. Projects and their funding may carry forward into subsequent years. Tasks must be supported directly or easily inferred from the Regional Transportation Plan.

## Key Considerations:

- **Status within the Regional Transportation Plan (RTP):** UPWP Projects should be identified in, or readily inferred from, the RTP. RTP strategic initiatives include:
  - Trends and Conditions Reporting/Peer Cities Benchmarking/Target Setting
  - City and County Transportation Master Plans

- Transportation Impact Analysis improvements
- Access Management Plan(s)
- Strategic Corridor Plans
- Leveraging/Financial Strategies/Annual Funding Priorities
- Right-of-way acquisition strategies
- Urban Wildlife Policy
- **Alignment with the Strategic Work Plan:** Guiding Principles in the plan include:
  - Focus
  - Leadership
  - Leveraging
  - Fairness
  - Resiliency/Multimodal Choice
  - Fairness
  - Trust
- **Budget:** The budget for planning efforts after salaries and overhead is \$120,000 to \$160,000 per year. The gap will be determined by the City's decision to fund part of the Multimodal Planner position. Additional funds may be added by eliminating or reducing existing commitments.
- **Existing Commitments:** The current UPWP contains several projects, some of which are pending review by the Executive Director. The TAC recently recommended changes to the UPWP. The Board will consider these March 8. These will impact staff resources more than next year's new budget capacity.
  - Current UPWP Commitments
    - Lone Tree Road South Corridor Study: \$225,000
    - Communications Plan: \$45,000
    - Performance Dashboard: \$45,000
  - Recommended UPWP Amendments
    - Master Programming: \$55,000
    - W. Route 66 Corridor Plan: \$150,000
    - Construction Innovation: \$20,000
- **FMPO Role:** Though this is ultimately a Board decision, the TAC should offer its perspective on what role the FMPO can play to meet its mandates and best complement and supplement its regional partners.
- **Alignment with New or Emerging Policies:** The RTP is 2-years old. In that time, the City adopted the *High Occupancy Housing Specific Plan* and the *Climate Change Action Plan*. Projects aligning with those and other recent documents might receive additional consideration.
- **Urgency:** Opportunities that are immediately present, but for which the affected partner agency has no funds.

### **Projects Types for Consideration:**

The broader categories can serve as a basis for discussion about the roles of the FMPO. The costs are based on construction estimates or discussions with consultants. Question marks represent the level of cost uncertainty.

- **Determinate Projects:** Projects which determine significant aspects of the transportation system, heavily influence planned land use and for which considerable uncertainty exists. FMPO Role: Long range planning.
  - **Lone Tree Traffic Interchange Value Engineering (\$30-50,000):** The interchange can significantly shift traffic off of Milton Road, provide valuable east-west connectivity and deliver traffic volumes sufficient to support commercial activity. It's large expense makes its future uncertain. ADOT studied several alternatives. *Is a value engineering review of those efforts warranted? Would a revised or reaffirmed cost enable us to better inform land development in the corridor or pursue funds?*
  - **Switzer Canyon connection to J.W. Powell Feasibility Study (\$80,000 to \$120,000):** This project is not in the Regional Plan. It can significantly shift traffic off of Fourth Street and Lone Tree Road. It can provide traffic volumes to support a small activity center near J.W. Powell. It is highly conceptual including conceptual alternate alignments under I-40 at the Rio de Flag or over I-40 just to the east of the Rio. The cost will range with level of detail asked for from the effort. It could be phased with a fatal flaw analysis.
  - **Small Urban Street Strategy (\$60,000?):** The Regional Plan and FMPO RTP envision the urbanization of Milton Road, Fourth Street and some emerging activity centers. It is essential that these are supported by an urban network of local streets forming viable blocks and circulation. There is no funding for that network and no clear ability for the City to obtain it through the development process. This effort would evaluate funding options and the development process to determine best opportunities for success.
- **Foundational Projects:** Projects, programs or processes that assure the right projects can get done the right way. FMPO Role – capacity/capability support.
  - **Data/Traffic Counts (\$25,000 - \$100,000/\$25,000 - \$30,000):** Data is needed to support the regional traffic model, inform development assessments, and solve problems. Big Data like the Streetlight, Inc. recently purchased will be over \$100,000 annually. The lower cost assumes cost-sharing among partners that has not been established yet. Traffic counts serve a similar role. Both big data and counts can be considered on a three-year cycle. Traffic counts should be performed in Fall 2019 to meet ADOT expectations for Highway Performance Monitoring System (HPMS) support.
  - **Transportation Impact Analysis Process (\$35,000):** The TIA process allows the transportation details of development to be defined, proportionately funded and assure they contribute to a larger whole. The FMPO regional transportation model update will be complete by June 2019 with added capacity for multimodal evaluation. City Transportation Project Manager, Alan Sanderson, sits on the Institute of Traffic Engineers (ITE) Committee updating TIA best practices. This effort would tailor a process for the City that best incorporates the ITE recommendations, model capabilities and influential policies such as the *Climate Change Action Plan*.
  - **Active Transportation Master Plan Regulatory Implementation:** The ATMP will be complete in Summer 2019. It will have implications for engineering standards and subdivision regulation. This effort will deliver recommended changes through the City process.
- **Structural Projects:** Projects that are predetermined, key elements of the transportation system for which additional detail is needed. FMPO Role: Short to mid-Term Planning.
  - **J.W. Powell – Airport Section (\$110,000+/-):** This corridor master plan has been deferred in favor of the W. Route 66 corridor. It is a relatively “simple” project that is

recommended to be deferred and combined with a full design effort in advance of the programmed construction.

- **J.W. Powell – Fourth Street Land Use and Economic Return Evaluation (\$???)**: The City is producing an infrastructure study to determine the roadway alignment and cross-section and underlying utilities to support the area. This will be followed by a specific planning effort to determine conceptual land use and public facilities needs. Councilmember Whelan raised the prospect of refining and/or expanding the latter effort to evaluate economic return from development and its ability to pay for the infrastructure.
- **BNSF Solution (\$???)**: The City has several proposed crossings of BNSF between Florence Drive and the Lone Tree Railroad Overpass. BNSF is planning a third rail running west of Milton Road and east of Country Club. Resolving alignment will aid in the design of the separate structures and may present an opportunity for integrated and coordinated project delivery.
- **Downtown Circulation Plan (\$???)**: This is a former City Council goal. It could build on and be coordinated with the ADOT US 180 Corridor Master Plan, NAIPTA BRT study, NAIPTA Downtown Connection Center Location Study, City/USACE Rio de Flag plans, and others. It would inform development patterns and access, parking strategy, and multimodal connectivity needs.
- **Operational Projects**: Projects that seek to improve operational aspects of the system.
  - **Intelligent Transportation Systems Investment Priorities and Implementation Plan (\$75,000?)**: The City is developing a fiber optic plan and has installed its first Advanced Traffic Management System (ATMS) Corridor. NAIPTA's BRT study will define needed ITS investments. ADOT recently updated the Statewide ITS Architecture. This effort would prioritize needs, set clear expectations for all partners at the regional level, and include an implementation plan with different funding opportunities. FMPO Role: capacity/capability support.
- **Opportunistic Projects**: Projects or efforts that seek to take advantage of an immediate opportunity, primarily grants. FMPO Role: Fundraising, leveraging local resources.
  - **Grant Opportunities**: This puts more FMPO resources into evaluating opportunities and developing grant applications at the federal, state and other levels. Analysis, public support and production value would all be increased. Grants available include BUILD - general, INFRA - freight, CRISI – passenger rail, HSIP – highway safety among others on the highway side. FMPO would partner with NAIPTA in pursuit of Federal Transit Administration grants.

#### **Financial Impacts:**

- No impacts beyond staff time

#### **Alternatives/Consequences:**

- None offered. Discussion only at this time.

#### **Attachments:**

- None

# FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION STAFF SUMMARY REPORT



**To:** FMPO Technical Advisory Committee  
**From:** David Wessel, FMPO Manager  
**Report Date:** January 31, 2019  
**Meeting Date:** February 7, 2019

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**Title:** Highway Safety Improvement Program FY2023 & FY2024

Recommended Actions: Discussion only

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**FMPO Mission Statement:** Leverage cooperation to maximize financial and political resources for a premier transportation system

**FMPO Vision Statement:** To create the finest transportation system in the country

## Support of Strategic Plan:

### Guiding Principles

FMPO is focused:

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FMPO leverages resources:

- Strategically leverages project champions and other plans

## DISCUSSION:

**Desired Outcome:** To gain initial TAC input on prospective HSIP applications for FY 2023 and FY 2024.

## Background/History:

The HSIP federal grant program targets the reduction of fatal and serious traffic accidents. \$35 million are available each year for FY 2023 and FY 2024. Projects must meet these requirements:

- Minimum benefit-cost ratio of 2.5
- Minimum project cost of \$250,000 (exception for policy equipment at \$5,000)
- Project must support the State and Regional safety plans

Final applications must be submitted by May 3, 2019. There is an opportunity for early submittal to receive ADOT review. Changes from last year:



- Dollar value of fatalities and injuries are raised this year resulting in increased B/C ratio
- 5% inflation being applied to construction cost for projection to 2023-24

**Key Considerations:**

- **Support for the Regional Strategic Transportation Safety Plan (RSTSP):**
  - RSTSP goals are:
    - Reduce fatalities and the occurrence and severity of serious injuries on all public roadways in FMPO.
    - Reduce crashes in the next five years.
    - Reduce the severity and number of pedestrian and bicycle crashes.
    - Enhance community awareness of transportation safety issues.
  - FMPO experienced a higher rate than the statewide rate for fatal crashes in the following areas:
    - Speeding and Aggressive Driving;
    - Impaired Driving;
    - Roadway Infrastructure and Operations: Lane/Roadway Departure;
    - Non-motorized Users: Pedestrians;
    - Heavy Vehicles/Buses/Transit;
    - Natural Risks: Weather; and
    - Traffic Incident Management.
  - RSTSP projects identified with a minimum B/C Ratio:

Table E-4 – Potential HSIP Segment Spot Improvements		
Segment	Project	Preliminary B/C Ratio
Townsend-Winona Road: US 89 to Koch Field Road	Rumble strips	21.2
Milton Road/E Route 66: McConnell Drive to Elden Street	Median	10.4
Milton Road: McConnell Drive to Ponderosa Parkway*	Variable Speed Limit Signs	2.5
I-40: I-17 to Country Club Drive	Lighting	3.9
Pedestrian Refuge Locations – Combined Application**		
*Crash data includes segment collisions of all types and rear-end collisions at intersections.		
**Installation of a single pedestrian refuge median does not meet the minimum HSIP project cost. Potential locations should be evaluated with an engineering study consistent with the MUTCD. Consider combining projects to meet the minimum cost or implementing a systemic pedestrian refuge improvement program.		

A systemic project to install flashing yellow arrows (FYA) may be merited in the future. Presently, the City is converting Beulah / Forest Meadows, SR 89 / Marketplace and potentially the University / Woodlands Village intersections to FYA. Other signals have recently been converted to protected-only phasing.

NOTE: The City of Flagstaff received HSIP funding for the Fourth Street/Lockett/Cedar Roundabout for year 2021-2022.

TAC members are invited to offer their own projects for consideration.

**Financial Impacts:**

- No impacts beyond staff time

**Alternatives/Consequences:**

- None offered. Discussion only at this time.

**Attachments:**

- None

# FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION STAFF SUMMARY REPORT



**To:** FMPO Technical Advisory Committee  
**From:** David Wessel, FMPO Manager  
**Report Date:** February 1, 2019  
**Meeting Date:** February 7, 2019

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**Title:** Adoption of ADOT Functional Classification Changes

Recommended Actions: Approve final submittal for ADOT

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**ACTION SUMMARY:** Submittal permits ADOT to submit FMPO changes to FHWA for final consideration

- **FMPO Mission Statement:** The mission of the FMPO is to leverage cooperation among local governments and partners to maximize resources for the creation, maintenance and preservation of a sound multi-modal transportation system.
- **Vision Statement:** To create the finest multi-modal transportation system in the country.

## Support of Organizational Objectives:

### Guiding Principles

1. FMPO is focused:
  - a. Adopts clearly delineated objectives
  - c. Strategically plans for political and financial realities and possibilities
6. FMPO builds trust and credibility:
  - a. Exhibits integrity in its work products
  - b. Exercises openness and transparency

## DISCUSSION:

### Background/History:

At the September TAC meeting the TAC approved submitting the City's recommended changes to the ADOT for review. The County committed to submitting theirs separately. Since then, FMPO, City and County staff have worked with ADOT to resolve any outstanding issues. In the interim, ADOT with the City and County, has reviewed and accepted all changes.

The USDOT/FHWA uses functional classification to assist in establishing funding levels for each state and to determine eligibility of projects for federal funding. Classifications range from interstates to local roads and are further divided between urban and rural area types. Local roads are not eligible for funding and rural minor collectors generally require special

dispensation for funding. Trip length, trip type, associated type of access to adjoining properties and connecting or terminal facility classification are used to determine functional class. Rough guidance for percent of center line miles assigned to each classification

Arizona is conducting a major review of the entire road network in the State and seeks input from local agencies on recommended changes to the system.

**Key Considerations:**

Most changes are being made to the minor collector system as additions. This means overall mileage in the state should increase which may assist with state level funding. As minor collectors are generally lower priority roads, this will likely have little impact on local funding levels or funding decisions.

Changes can be submitted after this effort is concluded. ADOT recommends that roads that will be upgraded due to future improvements or connections be classified for their current function. Future roads like J.W. Powell can be added at a later date.

ADOT will take these approved changes and submit them to FHWA.

**Financial Impacts:**

- Nominal

**Alternatives/Consequences:**

- Failure to submit changes could negatively impact statewide funding levels

**Attachments:**

- None – previously reviewed