



AGENDA MATERIAL

DATE 11/1/22 ITEM NO. RA23

Board of Supervisors Memorandum

November 1, 2022

**Additional Information Related to Valencia Road and Agenda Item #23 -
P22RZ00001, TUCSON SCHOOL DISTRICT NO. 1 - S. CARDINAL
AVENUE REZONING**

Background

The subject rezoning requests to change the zoning for 60.9 acres of land from GR-1 (Rural Residential) to CR-4 (Mixed-Dwelling Type) zone. The site is located east of Cardinal Avenue, south of Valencia. Staff has recommended approval subject to standard and special conditions. Based on concerns regarding traffic congestion on area roads by residents and the Pasqua Yaqui Tribe and the San Xavier District of the Tohono O'odham Nation, the Planning and Zoning Commission voted 4 to 3 to recommend denial.

Consideration of the item has been continue from the September 6, 2022 and October 18, 2022 Board of Supervisors agendas at the request of the applicant. At the September 6, 2022 meeting, several Board members requested additional information regarding traffic congestion on West Valencia Road, as well as options for addressing it.

Attached is a memorandum from Transportation Director Kathryn Skinner providing comprehensive input on growth and development along West Valencia Road, improvements constructed by the County, current traffic conditions, and options for future improvements to mitigate congestion.

To summarize, Pima County and the Regional Transportation Authority have funded over \$76 million dollars to widen and improve Valencia Road from Ajo Highway to Interstate 19. Even with these improvements, certain sections of the corridor are over capacity. The section of Valencia Road west of Camino de la Tierra has volumes within the capacity of the four-lane road. Volumes increase further east and the section between Cardinal Avenue and Mission Road have recent counts of 39,909 Average Daily Traffic (ADT), which exceeds capacity of 35,820 ADT.

As a focused development area in the Comprehensive Plan, existing approved or pending development projects will add to the volume as these are built, which could take several years dependent of market conditions. To address impacts of increased volume, a combination of key strategies will be needed including roadway capacity projects, enhanced transit service and other demand-related strategies such as potentially incentivizing motorists to shift travel outside of peak times.

The Department of Transportation (DOT) has looked ways to advance these strategies and is recommending accelerating the design of the Valencia Road, Mission to Cardinal widening project using impact fees collected to date. The design would follow the federal standards

OCT 25 22 PM 04:10 PC CLK OF BD

The Honorable Chair and Members, Pima County Board of Supervisors
Re: **Additional Information Related to Valencia Road and Agenda Item #23 - P22RZ00001,
TUCSON SCHOOL DISTRICT NO. 1 - S. CARDINAL AVENUE REZONING**
November 1, 2022
Page 2

to make the construction phase eligible for federal grant funding, which is one of the options the DOT will pursue.

In addition to advancing design and identifying funding for the widening project, DOT has initiated a corridor-wide comprehensive study to evaluate growth and traffic, and identify other approaches to alleviate congestion. This effort will help to inform further policy guidance and will aid in updating the Comprehensive Plan.

Finally, in evaluating signal timing along the Valencia corridor, DOT determined that increased green-signal time on Valencia Road at Mission Road could be achieved by adding a new right-turn lane on the northbound Mission Road approach. The rezoning applicant has indicated a willingness to install the new turn lane, and DOT is recommending adding a condition to the rezoning, if approved.

Recommendation

It is recommended that the Board of Supervisors consider this additional information when evaluating rezoning request P22RZ00001. If approved, it is requested that a condition be added to the rezoning requiring the project developer to build a right-turn lane for northbound Mission Road at Valencia Road.

It is further recommend that the Department of Transportation be directed to take the following actions:

- Accelerate the design of the Valencia Road, Mission Road to Cardinal Avenue widening project using impact fees that have been collected to date.
- Pursue all options for securing funding to enable construction of the Mission Road to Cardinal Avenue widening to begin upon completion of the design.

Sincerely,



Jan Leshner
County Administrator

JKL/anc – October 28, 2022

Attachment

c: Carmine DeBonis Jr, Deputy County Administrator
Carla Blackwell, Director, Development Services Department
Kathryn Skinner, Director, Department of Transportation

TO: Jan Leshner
County Administrator

DATE: October 28, 2022

FROM: Kathryn Skinner, P.E.
Director

SUBJECT: West Valencia Road

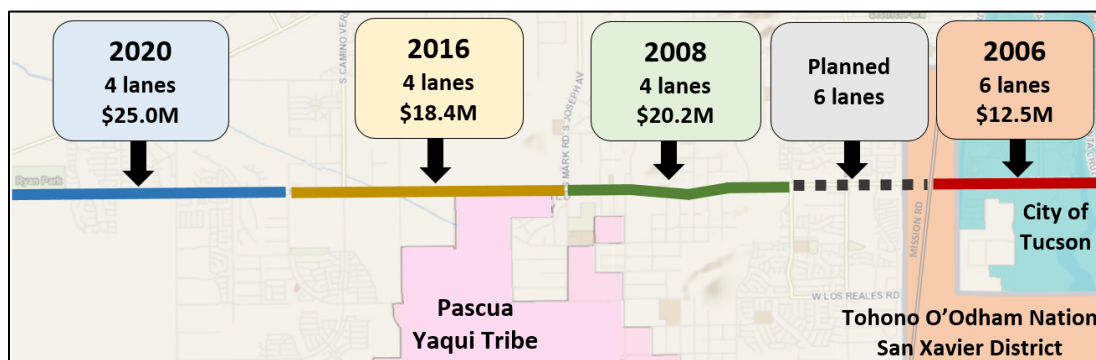
This memorandum addresses recent concerns about increasing traffic along West Valencia Road and approved and proposed development projects. The Pima County Board of Supervisors recently continued a rezoning case (P22RZ00001, Tucson School District No. 1 – South Cardinal Avenue Rezoning) that staff recommended for approval, and the Planning and Zoning Commission voted to deny based on traffic concerns. To provide more context for evaluating current development and future actions, this memo reviews some of the history of planning and roadway investments along this corridor, current developments, policies, roadway conditions, and future plans for improvements to this important regional corridor serving the growing southwest region.

History of Valencia Road Corridor

Pima County has been planning for growth in the southwest area for many years. In the 1970s, the County adopted the *Southwest Area Plan* (SWAP) and in 1980, staff completed the *Southwest Area Plan Development of Public Facilities* (SWAPDPF). In 2007, the County completed the *Southwest Infrastructure Plan* (SWIP) that recommended \$500 million in roadway improvements to accommodate future development and traffic by 2030. Impact fees were proposed to more than double from \$4,400 to \$9,500 per residence to fund these improvements but Pima County did not adopt this fee increase, in part due to the Great Recession of 2007.

Prior to the SWIP efforts, Pima County was planning, designing and constructing roadway improvements to West Valencia Road beginning in the mid-1990s. The 1997 HURF Revenue Bond Program included \$350 million for 57 major roadway projects including several widening projects to the Valencia corridor. This program funded the 2006 widening of Valencia Road to six lanes from I-19 to Mission Road at a cost of \$12.5 million. This program also funded the 2008 widening of Valencia Road to four lanes from Mark Road to Camino de la Tierra at a cost of \$20.2 million. The passage of the Regional Transportation Authority (RTA) in 2006 provided additional funds that enabled the widening of Valencia Road to four lanes from Mark Road to Wade Road in 2016 at a cost of \$18.4 million, and the segment from Wade Road to Ajo Highway in 2020 at a cost of \$25 million. In total, Pima County and RTA have invested over \$76 million to date to widen and improve the 11-mile corridor from Ajo Highway to Interstate 19 (see Figure 1).

Figure 1: Valencia Road Widening Projects, 2006-2020

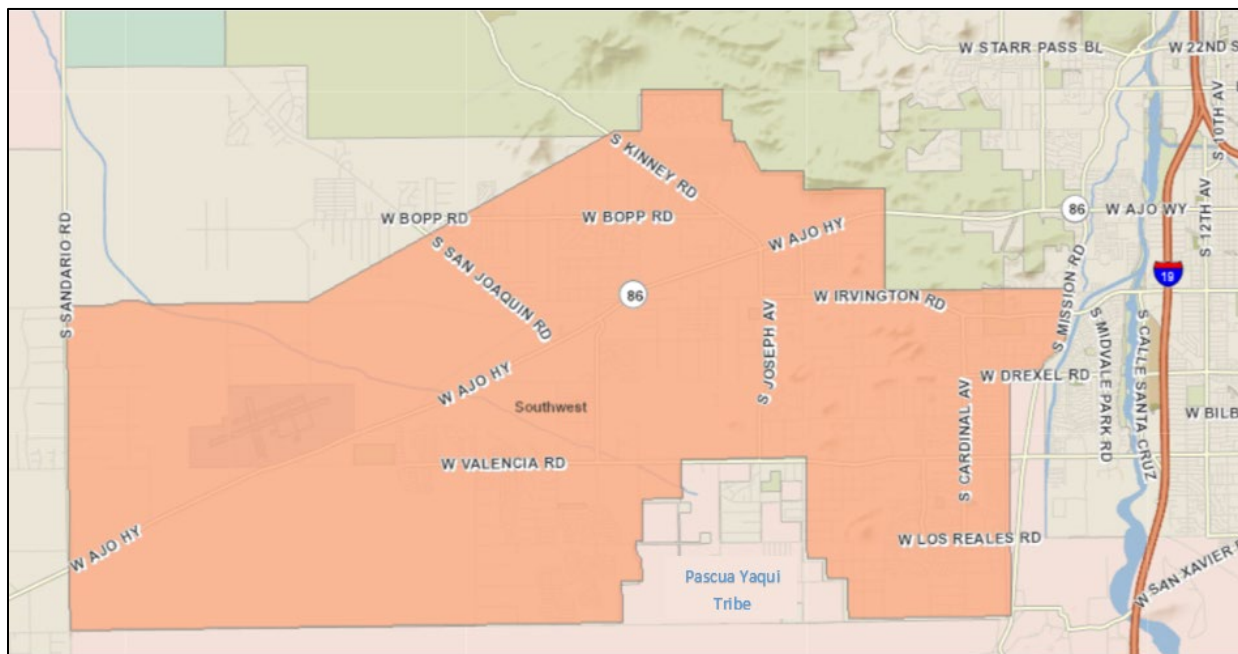


Growth and Development

Widening Valencia Road to six lanes from I-19 to Mission Road in 2006 followed a period of growth and development that had resulted in traffic volumes exceeding the capacity of a four-lane roadway. Later improvements that widened Valencia Road to four lanes to Ajo Highway provided additional capacity to accommodate future growth. The 2007 SWIP study reported over 17,000 residences and projected that by 2030 that number could nearly double to at least 33,000 or as many as 41,000 residences assuming higher densities and growth rates. Now the segment between Cardinal Avenue and Mission Road is approaching the capacity of a four-lane road.

Due to anticipated growth and the availability and suitability of undeveloped lands, nearly all of the southwest area was designated in 2015 as a “focused development area” in the comprehensive plan, Pima Prospers (see Figure 2). Planning for growth areas is required by state statute to identify areas that are particularly suited for multi-modal transportation and mixed land uses. Pima County also designated this area as such because it is located outside of the most environmentally sensitive lands in the conservation land system.

Figure 2: Southwest Focused Development Area, Pima Prospers 2015



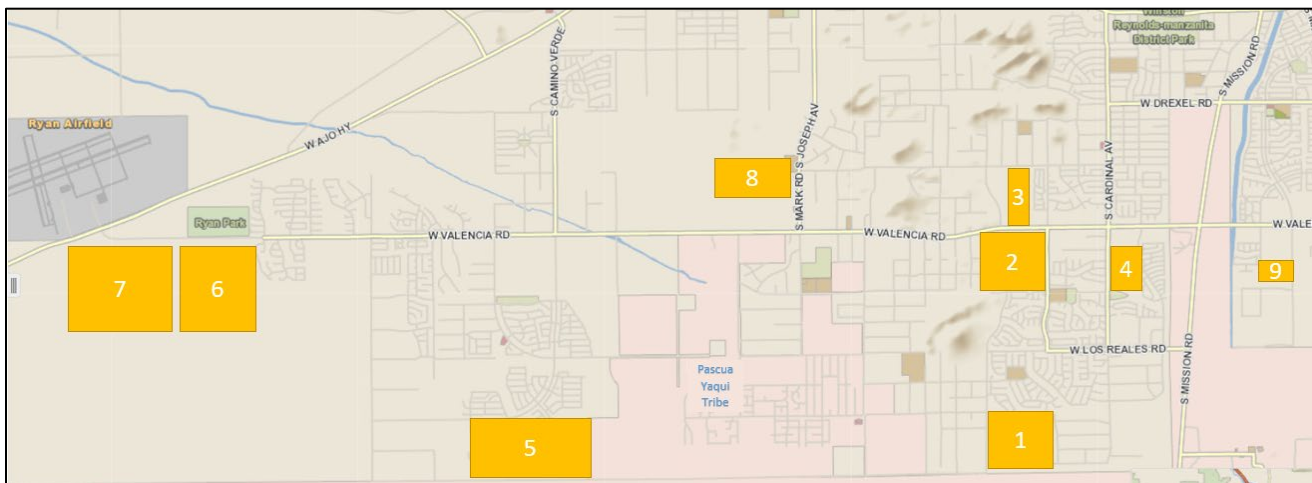
The focused development area policy encourages development and increased density in this area. In areas with excess roadway capacity, adequate transit service and bicycle and pedestrian access, this policy appropriately encourages urban infill development. However, where roadways are at or above capacity, or where transit service and bicycle and pedestrian facilities are limited, new growth may strain roadway capacity and increase traffic congestion, which is typically a consequence of urban growth.

Pima County does review projects for transportation infrastructure concurrency and evaluates whether or not adequate capacity exists. The policy for concurrence review was established in 2003 and refined in 2007, and includes criteria for evaluating roadway capacity impacts. In addition to roadway capacity, the policy also considers other factors including, but not limited to, growth area designations, infill opportunities, environmental sensitivity and potential mitigating roadway improvements. Based on a balancing of these considerations, a project may receive a staff approval recommendation even though a roadway may be over capacity.

When the comprehensive plan is updated, the concurrency policy will be reviewed and refined, as necessary, and this growth area will be reevaluated to ensure the correct balance between potentially competing goals. A combination of roadway capacity enhancements, transit service and other demand side strategies will be key strategies in this area to address congestion and support existing and future development.

Supported by the focused development area and concurrency policies, recently approved or pending developments along the Valencia Road corridor will contribute to increased travel along the corridor if they are built out as approved (see Figure 3). Nearly all of the anticipated new travel (90%) is anticipated from four large developments: Wildflower (7) and Sendero Pass (6) located on the far west, Star Valley (5) located near Wade Road, and Belnor Vista (2) located at Camino de la Tierra. Build-out of these projects will take several years, or longer, and are dependent on many economic factors which could change the rate of development or even result in plan changes. Several other smaller “infill” development projects, located between Mark Road and Mission Road, could impact roadway congestion sooner.

Figure 3: Recent Development and Rezoning Activity



Traffic Conditions

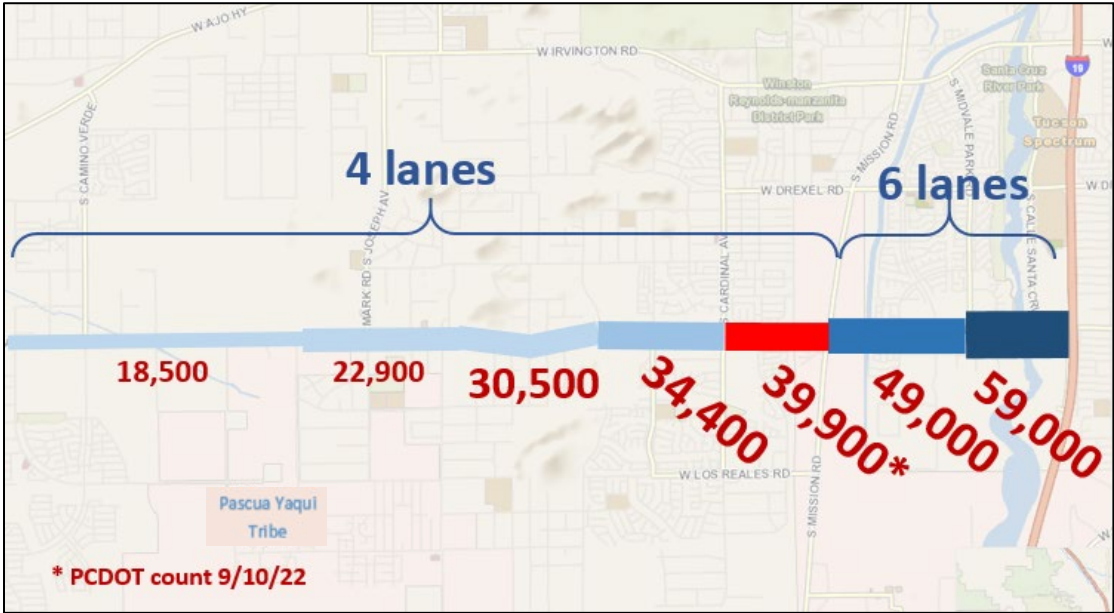
Traffic volumes along Valencia Road increase from west to east. West of Camino de la Tierra, traffic volumes are within the capacity of a four-lane road and can absorb some future growth. Volumes increase further east. Between Cardinal Avenue and Mission Road, recent counts of 39,909 Average Daily Traffic (ADT) were recorded, which exceeds capacity of 35,820 ADT. Other roadways throughout the Pima Association of Governments (PAG) region exceed their capacities particularly during peak hours, so this is not uncommon. With recently approved developments, however, this segment of Valencia Road will continue to experience traffic congestion and will require widening to six lanes to operate within County congestion standards, or level of service (LOS) D.

Figure 4 shows current traffic volumes and number of lanes. The segment in red shows where Valencia Road is overcapacity.

With the goal of seeking immediate, low cost relief for Valencia Road commuters, the Department of Transportation (DOT) recently conducted traffic counts and analyzed traffic signal timing at several Valencia Road intersections to determine if modifications or other short-term improvements could improve traffic flow. This review determined that signal timing is currently operating at peak efficiency given traffic volumes and intersecting turning movements. DOT also determined that increasing the amount of green time on Valencia Road at Mission Road could improve east-west traffic flow, but this adjustment would require a new right-turn lane on the northbound Mission Road approach. The rezoning applicant has recently indicated a willingness to install a

new right-turn lane at this location, and DOT recommends adding a condition to the rezoning requiring this installation (see attached).

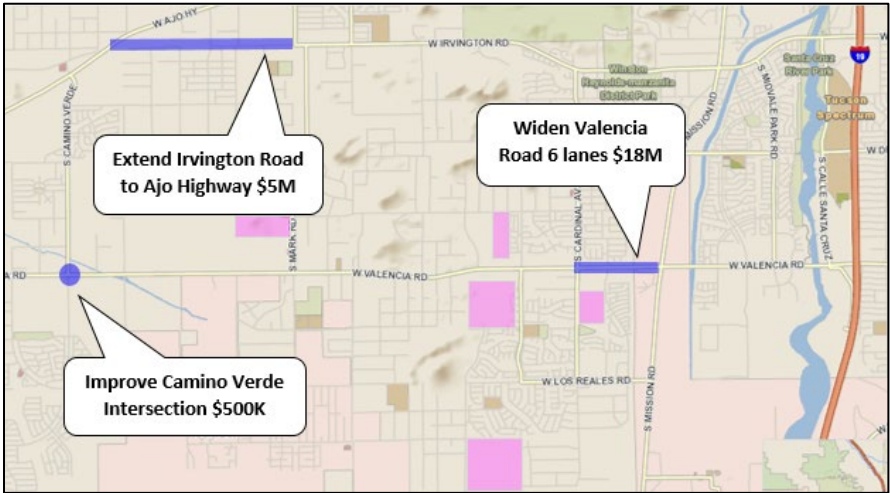
Figure 4: Valencia Road Traffic Volumes and Number of Lanes



Future Improvements

Widening Valencia Road to six lanes from Cardinal Avenue to Mission Road is a planned project in the 2045 PAG Regional Mobility and Accessibility Plan (RMAP). This capacity project is also an impact fee eligible project in the County’s Infrastructure Improvements Plan (IIP). Other impact fee eligible projects in the area include improvements to the Camino Verde intersection and extending Irvington Road to Ajo Highway (see Figure 5). The currently available impact fees in this benefit area (\$4,610,997) are insufficient to complete all three, so phasing of these projects would be required. The IIP will be updated in 2025 at which time impact fee revenues and capacity needs will be re-evaluated.

Figure 5: Impact fee eligible projects in the West Service Area



The widening of Valencia Road is the highest priority project in this impact fee benefit area and will be the first project advanced. Since the rate of development fluctuates year to year, and associated fees may accumulate slowly, staff is investigating methods to accelerate this project, including potentially issuing certificates of participation to be repaid with future impact fees and seeking federal grants through the Infrastructure Investment and Jobs Act (IIJA). Pima County has also recommended this project be included in the RTA Next plan currently under development.

Additional Steps

To better understand the cumulative future impacts of all approved and potential developments along this corridor, DOT is undertaking a comprehensive land use and transportation study to update the data, analysis and projections contained within the 2007 SWIP study. This study may take up to one year and will quantify cumulative impacts of all planned development and recommend both supply and demand solutions to improve mobility and access needs in this growing area.

When completed, DOT will pursue demand management strategies as recommended in the study to maximize transit use along this corridor, encourage travel during off-peak periods, encourage alternative routing to avoid congestion hot spots, and encourage other transportation modes for shorter trips. Further growth and concurrency policy changes could be recommended based on the study to help reduce traffic impacts and manage congestion.

Recommendations

Given the traffic conditions along the West Valencia Road corridor, DOT recommends the following actions be taken:

1. Accelerate the design of the Valencia Road, Mission Road to Cardinal Avenue widening project using impact fees that have been collected to date. The design should follow federal standards so that the construction phase of the project will be eligible for federal funding. Completing the design can take up to two years, which depending on housing market conditions could coincide with the timing for the platting and spine infrastructure design and construction phases of the rezoning property.
2. Pursue all options for securing funding to enable construction of the Mission Road to Cardinal Avenue widening to begin upon completion of the design.
3. Add a condition to P22RZ00001, Tucson School District No. 1 – South Cardinal Avenue Rezoning to build a right-turn lane for northbound Mission Road at Valencia Road. Upon completion of this improvement, DOT staff will be able to adjust timing to further improve the through movement on Valencia Road.

Please let me know if you have any questions or would like additional information.

KS:JC:jh

Attachment

c: Carmine DeBonis, Jr., Deputy County Administrator
Carla Blackwell, Director, Development Services
Lauren Ortega, P.E., Deputy Director, Transportation
Paul Casertano, AICP, Deputy Director, Transportation

ATTACHMENT 1

From: Joseph Godoy <Joseph.Godoy@pima.gov>
Sent: Tuesday, October 25, 2022 10:16 AM
To: 'Paul Oland' <gpo@ParadigmLand.us>; David Takaki <David.Takaki@pima.gov>
Cc: Terri Tillman <Terri.Tillman@pima.gov>; Chris Poirier <Chris.Poirier@pima.gov>; Sam Mills - Pulte Group (shmills@drhorton.com) <shmills@drhorton.com>; Ken L. Koss (kenk@tkdevelopment.org) <kenk@tkdevelopment.org>; Leslie Schaefer (lsschaefer@drhorton.com) <lsschaefer@drhorton.com>; Lauren Ortega <Lauren.Ortega@pima.gov>; Paul Casertano <Paul.Casertano@pima.gov>
Subject: RE: _P22RZ00001 Transportation Staff Report

Good morning Paul,

The attached exhibit for the addition of the northbound to eastbound right turn lane would be supported by Pima County as an acceptable means of mitigation for this intersection. Engineering will be required during the development and permitting process to verify all movements at the intersection are within acceptable limits of applicable standards.

Thank you for reaching out to us and have a great rest of your day.
Regards,

Joseph Godoy
Deputy Director
Pima County Development Services
201 N. Stone Ave
Tucson, AZ 85701
joseph.godoy@pima.gov
(520) 724-6756

From: Paul Oland <gpo@ParadigmLand.us>
Sent: Tuesday, October 25, 2022 9:48 AM
To: Joseph Godoy <Joseph.Godoy@pima.gov>; David Takaki <David.Takaki@pima.gov>
Cc: Terri Tillman <Terri.Tillman@pima.gov>; Chris Poirier <Chris.Poirier@pima.gov>; Sam Mills - Pulte Group (shmills@drhorton.com) <shmills@drhorton.com>; Ken L. Koss (kenk@tkdevelopment.org) <kenk@tkdevelopment.org>; Leslie Schaefer (lsschaefer@drhorton.com) <lsschaefer@drhorton.com>
Subject: RE: _P22RZ00001 Transportation Staff Report

CAUTION: This message and sender come from outside Pima County. If you did not expect this message, proceed with caution. Verify the sender's identity before performing any action, such as clicking on a link or opening an attachment.

Good morning, Joseph. Bowman and Esparza Engineering have looked into possible mitigations we can offer at Mission/Valencia and we'd like to propose adding an eastbound right-turn lane (see attached exhibit). This would improve a number of the intersection's issues:

Existing Lane Configuration

With NB Right Turn Lane on Mission Road

Valencia/Mission

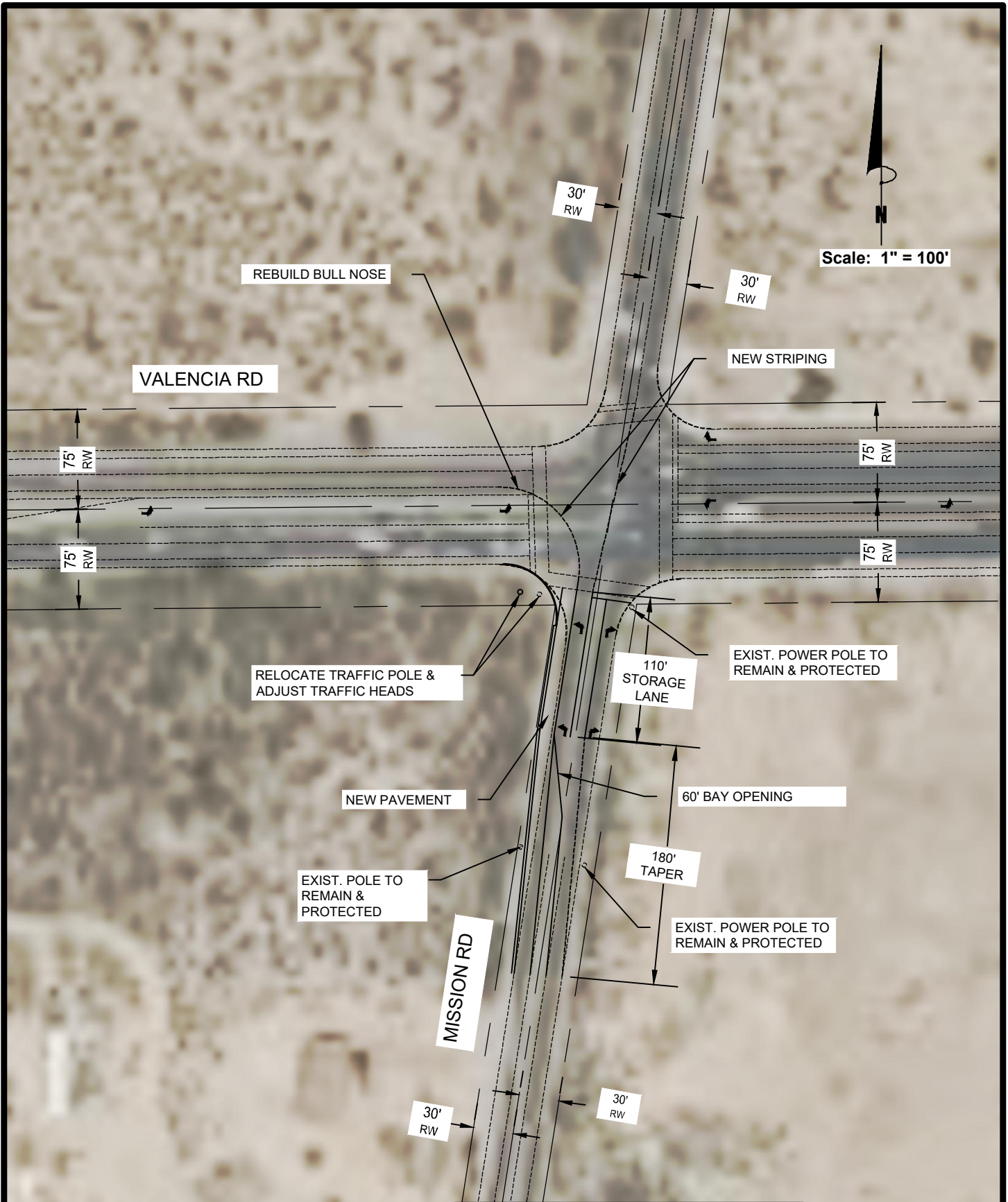
	2025 With Project			
	AM		PM	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Eastbound				
Left	17.3	B	48.2	D
Through/Right	79.9	F	77.2	F
Approach	75.1	E	74.5	E
Westbound				
Left	27.5	C	62.3	E
Through	21.5	C	75.5	F
Right	14.8	B	16.3	B
Approach	21.5	C	67.6	E
Northbound				
Left	26.8	C	26.4	C
Through/Right	211	F	93.4	F
Approach	205	F	87.1	F
Southbound				
Left	45	D	70.2	E
Through/Right	32.1	C	42.6	D
Approach	37.4	D	52.1	D
Intersection	70.1	E	70.2	E

	2025 With Project			
	AM		PM	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Eastbound				
Left	16.1	B	48.6	D
Through/Right	67	F	42.1	D
Approach	63	E	42.6	D
Westbound				
Left	27.4	C	51.9	D
Through	19.9	B	37.7	D
Right	13.9	B	14.5	B
Approach	20.1	C	36.8	D
Northbound				
Left	27.1	C	32.3	C
Through	30.8	C	36	D
Right	118.1	F	69.9	E
Approach	97.2	F	57.9	E
Southbound				
Left	27.5	C	35.2	D
Through/Right	34.1	C	62.8	E
Approach	31.4	C	53.3	D
Intersection	50.6	D	42.4	D

The proposed improvements fit within the existing right-of-way. You previously mentioned that this project would be expected to contribute its fair share toward a Valencia solution of some sort. We propose that this improvement would satisfy that requirement. Our BOS hearing is scheduled for **next Tuesday** so I'd very much appreciate hearing your support for this mitigation measure so that I can circle back with the tribe and the supervisors later this week and let them know of this progress.

Thanks!

Paul Oland
Paradigm Land Design LLC
Paradigm Land Agency LLC
GPO@ParadigmLand.US
520.664.4304



Bowman

7464 N. La Cholla Blvd. Tucson, Arizona 85741 Phone: (520) 463-3200

© Bowman Consulting Group, Ltd. www.bowman.com

Widening And Realignment Intersection Improvements Redford Estates Residential

DESIGN	CH
JOB No.	051115-01-001
DATE :	10/03/2022
OPTION 2	