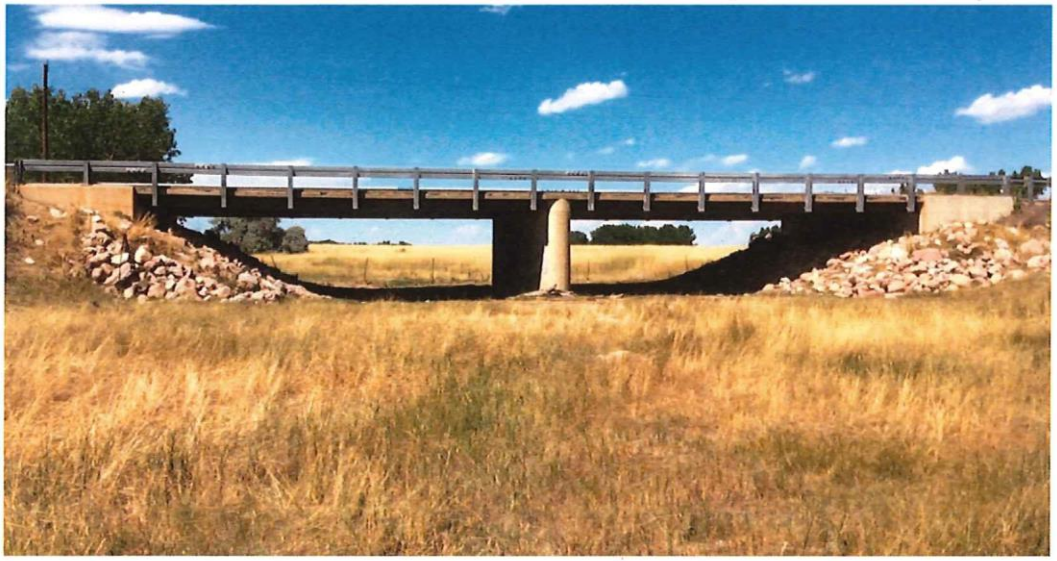
Bohannan Huston

February 19, 2025



PULTE APS DEVELOPMENT
TRAFFIC IMPACT ANAYLSIS

Albuquerque, New Mexico

PULTE APS DEVELOPMENT
TRAFFIC IMPACT ANALYSIS

FINAL SUBMITTAL

Date:

February 19, 2025

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2/19/2025

Carl D. Vermillion, PE, PTOE, RSP1 **Date**

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I. INTRODUCTION AND SUMMARY

The Pulte Development group proposes to develop the APS Property, situated north of Arroyo Vista, between Inspiration, and the existing Tres Volcanes Community Collaborative School, in Albuquerque, New Mexico. The proposed development will include 214 single-family detached residential lots.

A. STUDY PURPOSE

The purpose of the traffic study is to determine the impacts of the proposed development on the surrounding roadway network, evaluate the operation of the proposed site entrances, and to recommend any mitigation measures that may be necessary to support additional traffic generated by the new development.

B. EXECUTIVE SUMMARY

1. SITE LOCATION AND STUDY AREA

The site is located north of Arroyo Vista, east of Inspiration, and west of the Tres Volcanes Community Collaborative K-8 school in Albuquerque, New Mexico. A vicinity map and proposed site plan are shown in Figure 1.

The study area consists of the following intersections:

- Arroyo Vista & School Entrance Driveway
- Arroyo Vista & Tierra Pintada Boulevard
- Tierra Pintada & Stormcloud Avenue
- Arroyo Vista & Jennifer Riordan Spark Kindness Sports Complex Driveway
- Arroyo Vista & Nusenda Community Stadium Driveway

The intersection evaluations include analysis for the AM and PM peak hours for the following traffic conditions:

- Existing traffic (2024)
- 2028 Completion Year without the proposed site development (2028 No Build)
- 2028 Completion Year with the proposed site development (2028 Build)
- 2038 Horizon Year without the proposed site development (2038 No Build)
- 2038 Horizon Year with the proposed side development (2038 Build)

2. PRINCIPAL FINDINGS

The traffic analysis found that all intersections operate overall acceptably in the 2024 Existing, 2028 and 2038 No Build & Build conditions, with all intersections operating at LOS B or better.

Implementation of the APS Property residential development will not significantly change traffic patterns and would not require additional mitigative efforts at the major intersections to maintain operability.

Right turn lane warrants were evaluated, and a dedicated right turn lane is warranted at the intersection of Arroyo Vista & Nusenda Community Stadium. The PM peak hour exceeds the threshold of requiring a dedicated right turn lane into the development. Due to the future of Arroyo Vista in this area, we are proposing to install an interim condition to satisfy this right turn lane warrant. The westbound direction of Arroyo Vista should be restriped to keep the bike lane in place, add a dedicated westbound right turn lane in the existing buffer area, and keep the through and left turn lane westbound.

An analysis of the crash data information showed that crashes that have occurred in the study area are minor, and no proposed changes to these intersection are proposed in this report as the responsibility of the developer.

3. RECOMMENDATIONS

- The intersection of Arroyo Vista and the proposed east entrance to the development aligned with Nusenda Community Stadium will require a dedicated westbound right turn lane into the new development. Existing striping should be keeping the bike lane in place, add a dedicated westbound right turn lane, and keep the through and left turn lane westbound. This turn lane should be 240 feet in length with a lane transition length meeting the City of Albuquerque DPM standards.
- The two site accesses will require a single lane southbound at the intersections.
- Access points for the proposed development will be required to follow City of Albuquerque standards.
- All designs shall satisfy the Manual on Uniform Traffic Control Devices (MUTCD) and the City of Albuquerque requirements.

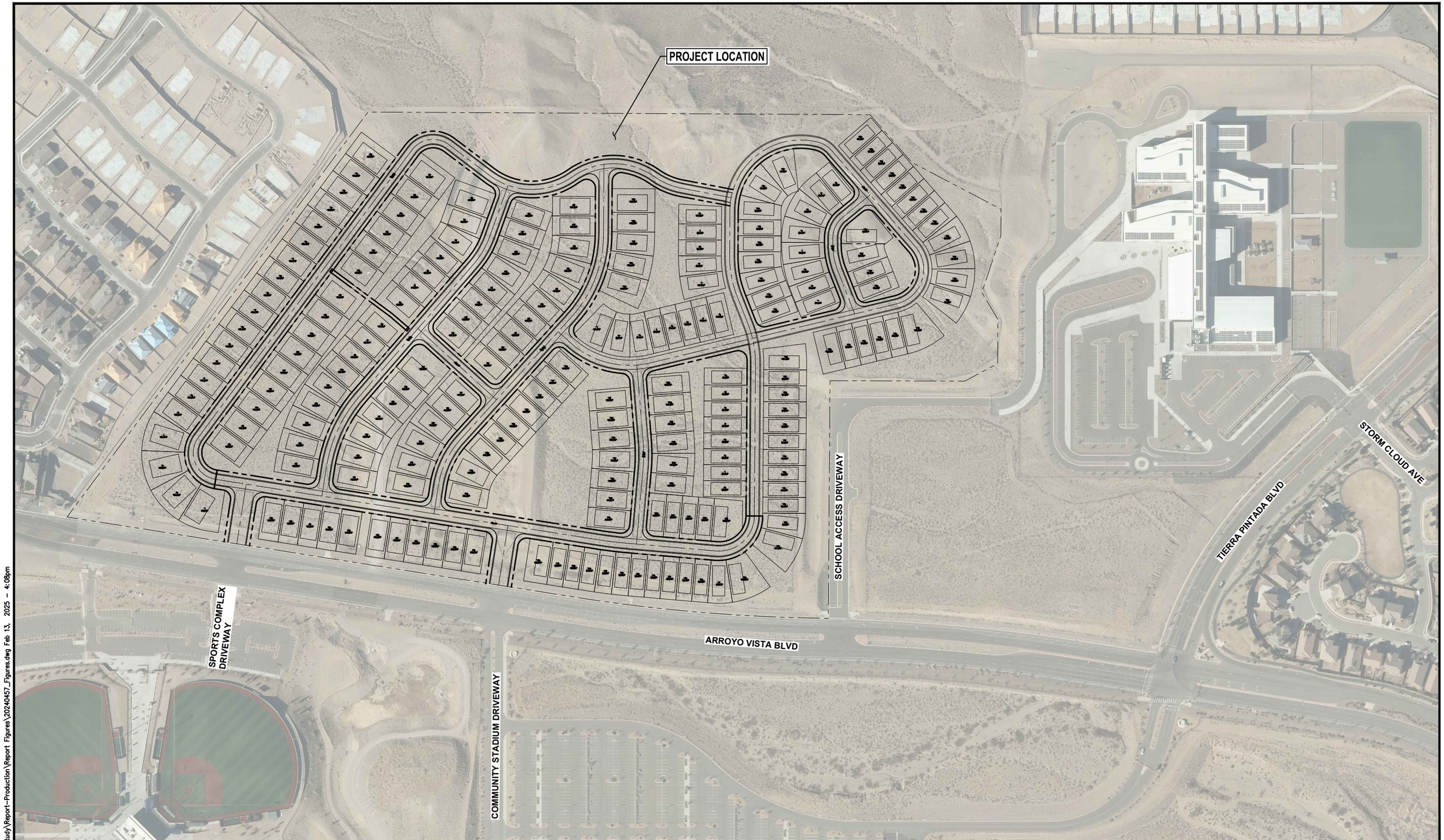

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FIGURE 1
VICINITY MAP

II. PROPOSED DEVELOPMENT

A. LAND USE AND INTENSITY

The proposed development is a 214-lot single family detached residential subdivision.

The development is located north of Arroyo Vista, between the Inspiration Subdivision and the Tres Volcanes Community Collaborative K-8 school.

B. DEVELOPMENT PHASING AND TIMING

The project is expected to be developed by 2028, occurring in 2 phases.

III. STUDY AREA CONDITIONS

A. STUDY AREA

The study area consists of the following intersections:

- Arroyo Vista & School Entrance Driveway (Existing 3-Way Unsignalized Intersection)
- Arroyo Vista & Tierra Pintada Boulevard (Existing Signalized Intersection)
- Tierra Pintada & Stormcloud Avenue (Existing Signalized Intersection)
- Arroyo Vista & Jennifer Riordan Spark Kindness Sports Complex Driveway (Existing 3-Way Unsignalized Intersection)
- Arroyo Vista & Nusenda Community Stadium Driveway (Existing 3-Way Unsignalized Intersection)

B. SITE ACCESSIBILITY

The development will expand access on the existing intersections involving the Sports Complex and Community Stadium driveways. These intersections, with the development of the site, will expand from a 3-leg intersection to 4-leg, two-way stop-controlled with Arroyo Vista being free flow. Traffic is all projected to enter from the east, originating either westbound or southbound right at the intersection of Arroyo Vista and Tierra Pintada. About two-thirds of the residential traffic are projected to enter through the updated community stadium intersection, while the remaining one-third will be utilizing the updated sports complex intersection.

C. DATA SOURCES

The data used in this report consist of the traffic volumes described below, aerial photography and mapping from Google Earth®, as well as information provided by Cleland Traffic Counts, and the Pulte Development group.

IV. EXISTING CONDITIONS ANALYSIS

A. BACKGROUND

Roadway federal classification is updated approximately every four years. The classification process involves local governments, the Mid Region Council of Governments (MRCOG), New Mexico Department of Transportation (NMDOT), and the Federal Highway Administration (FHWA). The 2024 MRCOG Roadway Functional Classification Map classifies roadways based on their function. Roadways are subject to design guidance based on their functional classification, design speed, or based on Comprehensive Plan corridor designations.

1. ADJACENT ROADWAYS

The following are adjacent roadways:

- Arroyo Vista Blvd is classified as an Existing Community Principal Arterial east of the intersection with Tierra Pintada, while it is classified as a Proposed Community Principal Arterial west of the intersection. Arroyo Vista has a posted speed limit of 35 Miles Per Hour (MPH). Arroyo Vista possesses 2 travel lanes westward, and 3 travel lanes eastward. The roadway is split along its length within the vicinity site with a non-traversable median. Both sidewalk trails and bicycle lanes exist in both directions along Arroyo Vista in this area.
- Tierra Pintada Blvd is classified as a major collector north of the intersection with Arroyo Vista. Tierra Pintada has a posted speed limit of 35 MPH. North of the intersection, Tierra Pintada possess 2 travel lanes in both directions, split by a non-traversable median. Both sidewalk trails and bicycle lanes exist in both directions along Tierra Pintada in this area.
- Storm Cloud Ave is classified as a local road east of its intersection with Tierra Pintada. As a local road in a residential area, it can be assumed the speed limit does not surpass 15 MPH. Sidewalks exist in both directions along Storm Cloud in this area. The west leg of Storm Cloud Ave is the designated access point for parent pick up and drop off to the Tres Volcanes Community Collaborative K-8 school and is therefore utilized heavily during pick up and drop off hours.
- Other roadways involved but not mentioned here are not classified by the NMDOT and can be assumed to be local roads.

2. INTERSECTION TRAFFIC CONTROL

The following are the intersections, and the traffic control associated with each intersection.

- Arroyo Vista & School Entrance Driveway is an existing 3-Way Unsignalized Intersection with stop control on the School Access leg. Arroyo Vista at this intersection is uncontrolled. This school entrance access is the bus access for Tres Volcanes Community Collaborative K-8 school and is signed as busses only.
- Arroyo Vista & Tierra Pintada Boulevard is an existing signalized intersection. The westbound left turn lane and the southbound left turn lane is a protected only movements, whereas all other left turn movements are protected/permissive. The westbound right turn has a right turn movement that is separate from the signal with yield condition. Traffic signal timing for the intersection was provided by the City of Albuquerque.
- Tierra Pintada & Stormcloud Avenue is an existing signalized intersection. The northbound left at this intersection is a protected/permissive movement and all other movements are permissive. Traffic signal timing for the intersection was provided by the City of Albuquerque.
- Arroyo Vista & Jennifer Riordan Spark Kindness Sports Complex Driveway is an existing 3 way unsignalized intersection with stop control on the sports complex leg and no traffic control on Arroyo Vista. Once the development is constructed, it will add a southbound leg to the existing intersection.
- Arroyo Vista & Nusenda Community Stadium Driveway is an existing 3 way unsignalized intersection with stop control on the stadium access leg and no traffic control on Arroyo Vista. Once the development is constructed, it will add a southbound leg to the existing intersection.

B. EXISTING TRAFFIC CONDITIONS

Traffic counts for the intersections analyzed in the study area were collected November 13th and 14th, 2024. Existing traffic counts are included in Appendix A. The counts included 6-hour turning movement counts. Data was collected from 7:00 AM to 9:00 AM and from 2:00 PM to 6:00 PM at each of the intersections. The counts provide the AM and PM peak hours used in the analysis.

C. LEVEL OF SERVICE DEFINITIONS

The *Highway Capacity Manual Seventh Edition* (HCM) defines Level of Service (LOS) for signalized and un-signalized intersections in Table 1 as follows:

Table 1 | LOS Definitions			
Level of Service	**Definition**	**Signalized (sec/veh)**	**Unsignalized (sec/veh)**
A	Most vehicles do not stop	<10	<10
B	Some vehicles stop	>10 and <20	>10 and <15
C	Significant numbers of vehicles stop	>20 and <35	>15 and <25
D	Many vehicles stop	>35 and <55	>25 and <35
E	Limit of acceptable delay	>55 and <80	>35 and <50
F	Unacceptable delay	>80	>50

The City of Albuquerque has established LOS D as the generally acceptable level of service in urban areas. When intersections operate below this level, improvements are considered, where feasible. Other critical movements are also desired to have LOS D or better if possible.

D. EXISTING INTERSECTION CAPACITY ANALYSIS

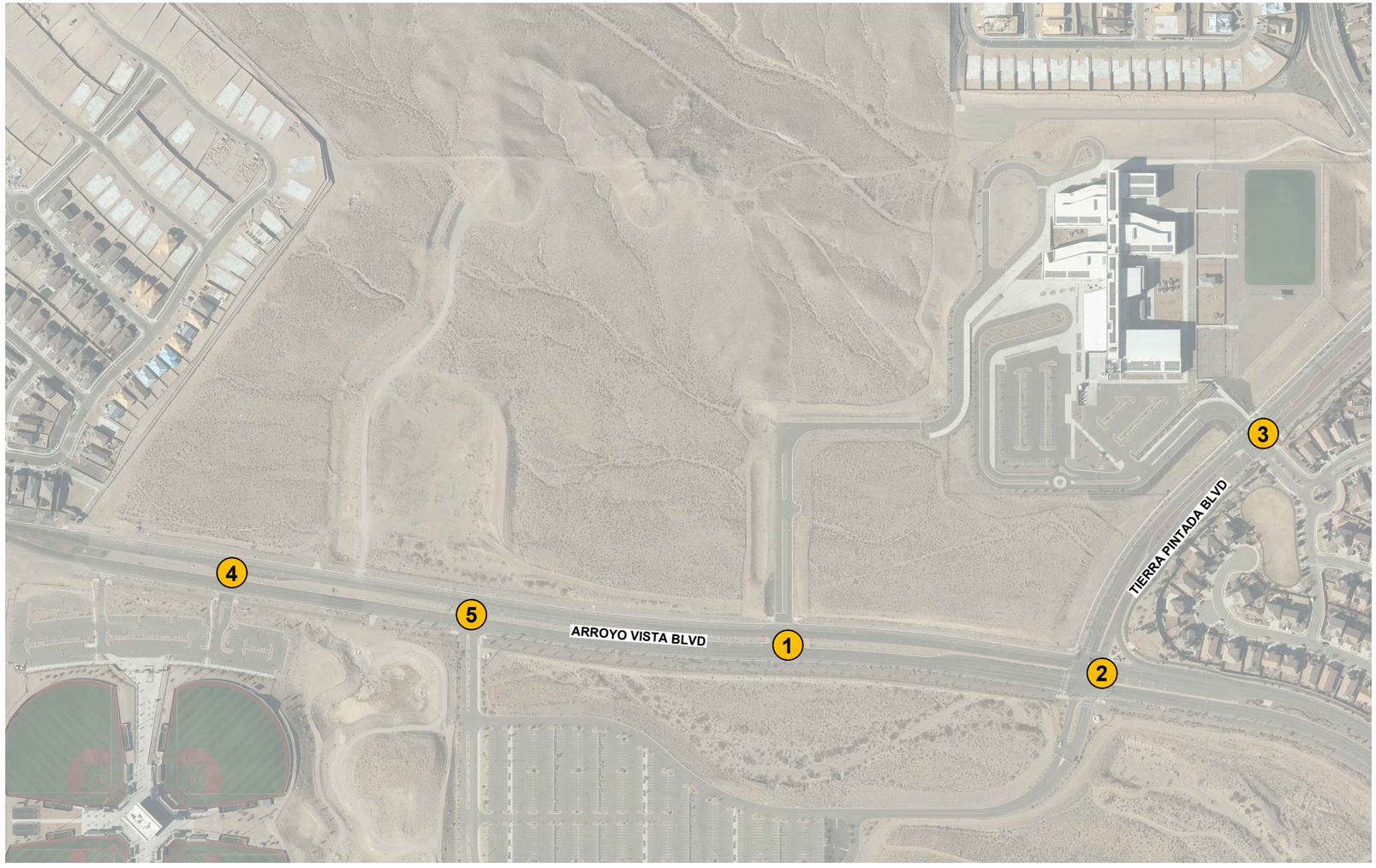
The traffic volume for all existing intersections were analyzed using Highway Capacity Software (HCS 2024), which uses the intersection methodology from the Seventh Edition of the Highway Capacity Manual (HCM). Existing traffic volumes are shown in Figure 2. Individual intersection output for the existing conditions analysis is included in Appendix B. The results are summarized in Table 2 and Table 3.

The signalized intersections of Arroyo Vista & Tierra Pintada, as well as Tierra Pintada & Stormcloud operate at an acceptable level of service in both the AM and PM peak hours, with all movements operate at LOS B or better.

Table 2 | Existing Signalized Intersection Results						
Intersection	2024 AM Peak			2024 PM Peak		
	Delay	LOS	Max V/C	Delay	LOS	Max V/C
Arroyo Vista & Tierra Pintada	**16.9**	**B**	**0.649**	**15.9**	**B**	**0.590**
Eastbound Left	12.1	B	0.098	11.1	B	0.073
Eastbound Through	12.0	B	0.062	11.0	B	0.028
Westbound Left	26.2	C	0.133	24.6	C	0.126
Westbound Through	13.1	B	0.043	12.0	B	0.064
Westbound Right	19.1	B	0.500	16.8	B	0.455
Northbound Left	0.0	-	0.000	0.0	-	0.000
Northbound Through	17.1	B	0.007	16.1	B	0.004
Northbound Right	17.1	B	0.009	0.0	-	0.000
Southbound Left	19.3	B	0.649	19.1	B	0.590
Southbound Through	9.1	A	0.004	9.3	A	0.003
Southbound Right	8.3	A	0.053	8.8	A	0.058
Tierra Pintada & Stormcloud	**11.6**	**B**	**0.432**	**11.2**	**B**	**0.260**
Eastbound Through	7.6	A	0.149	5.2	A	0.091
Eastbound Right	8.3	A	0.251	5.6	A	0.163
Westbound Approach	7.7	A	0.177	5.0	A	0.064
Northbound Left	18.0	B	0.432	16.5	B	0.239
Northbound Through	12.7	B	0.108	14.6	B	0.241
Northbound Right	12.7	B	0.114	14.7	B	0.260
Southbound Left	13.3	B	0.023	15.4	B	0.037
Southbound Through	13.2	B	0.228	14.5	B	0.236
Southbound Right	13.8	B	0.352	14.6	B	0.257

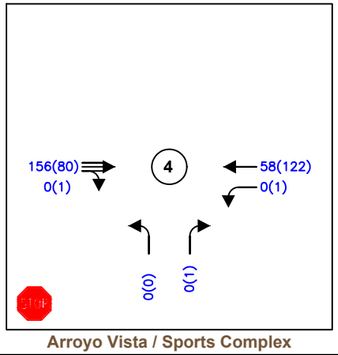
The unsignalized intersections all operate at acceptable levels of service in the AM and PM peak hours, operating at LOS B or better. The Results for the unsignalized intersections are shown in Table 3.

Table 3 | Existing Unsignalized Intersection Results								
	2024 AM Peak				2024 PM Peak			
Intersection/Movement	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Arroyo Vista & School Entrance	9.9	-	-	A	9.9	-	-	A
Eastbound Left	7.4	0.00	0	A	7.5	0.00	0	A
Southbound Approach	9.9	0.02	25	A	9.9	0.02	25	A
Arroyo Vista & Sports Complex	0.0	-	-	A	9.2	-	-	A
Westbound Left	8.8	0.00	0	A	8.4	0.00	0	A
Northbound Left	10.4	0.00	0	B	10.1	0.00	0	B
Northbound Right	9.5	0.00	0	A	9.2	0.00	0	A
Arroyo Vista & Community Stadium	9.4	-	-	A	9.2	-	-	A
Westbound Left	8.7	0.00	0	A	8.5	0.00	0	A
Northbound Left	10.3	0.00	0	B	10.2	0.00	0	B
Northbound Right	9.4	0.00	0	A	9.2	0.00	0	A
* – HCM 95th percentile queue rounded to next 25-foot increment								

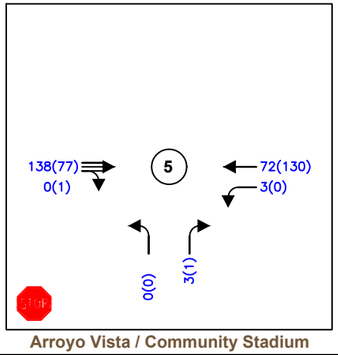


LEGEND

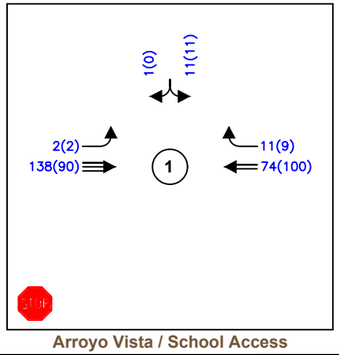
- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



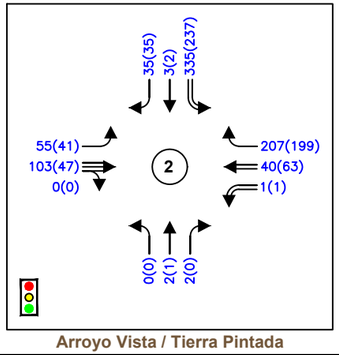
Arroyo Vista / Sports Complex



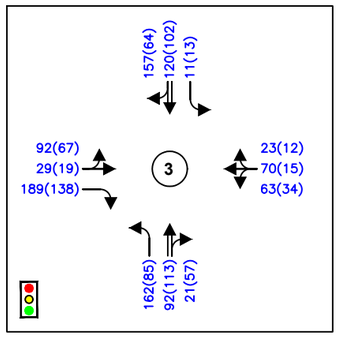
Arroyo Vista / Community Stadium



Arroyo Vista / School Access



Arroyo Vista / Tierra Pintada



Tierra Pintada / Stormcloud

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FIGURE 2
2024 AM(PM) EXISTING
PEAK HOUR TRAFFIC VOLUMES

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V. PROJECTED TRAFFIC

A. SITE TRAFFIC FORECASTING

1. TRIP GENERATION

Generated trips are broken down into three types; 1) primary, 2) pass-by trips, and 3) diverted link. The Trip Generation report defines these trips as follows:

- **Primary Trips** – These trips are made for the specific purpose of visiting the generator. The stop at that generator is the primary reason for the trip. For example, a home to shopping to home combination of trips is a primary trip set.
- **Pass-by Trips** – These trips are made as intermediate stops on the way from an origin to a primary trip generation. Pass-by trips are attracted from the traffic passing the site on an adjacent street that contains direct access to the generator site. These trips do not require a diversion from another roadway. For example, stopping at the store on the way home from work is an example of a pass-by trip. No pass-by trips we used in this analysis.
- **Diverted Linked Trips –** These trips are attracted from the traffic volume on the roadway within the vicinity of the generator, but which require a diversion from that roadway to another roadway to gain access to the site. The roadways could include streets or freeways adjacent to the generator, but without access to the generator. For this study, the diverted link trips have been included in the primary trips.

This study evaluates primary trips only.

The trip generation based on the 10th Edition of the Institute of Transportation engineer's (ITE) Trip Generation Manual is shown in Table 4 below with the following considerations. The trip generation is based on the peak hour of the adjacent street traffic, with the given land use and generated traffic as shown in Table 4.

Table 4 | Trip Generation

Land Use	ITE Code	Size	AM Enter	AM Exit	PM Enter	PM Exit
Single-Family Detached Housing	210	214	37	113	128	75

2. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution was determined using a modified gravity model that considered a region-wide travel shed for employment trips. As the development is residential, standard traffic analysis assumes the trips in the peak hour to be primarily employment trips, so the destinations for the AM trips are employment locations, with the origins the site. In the PM peak hour, the destination is the site, and the origins are the employment locations.

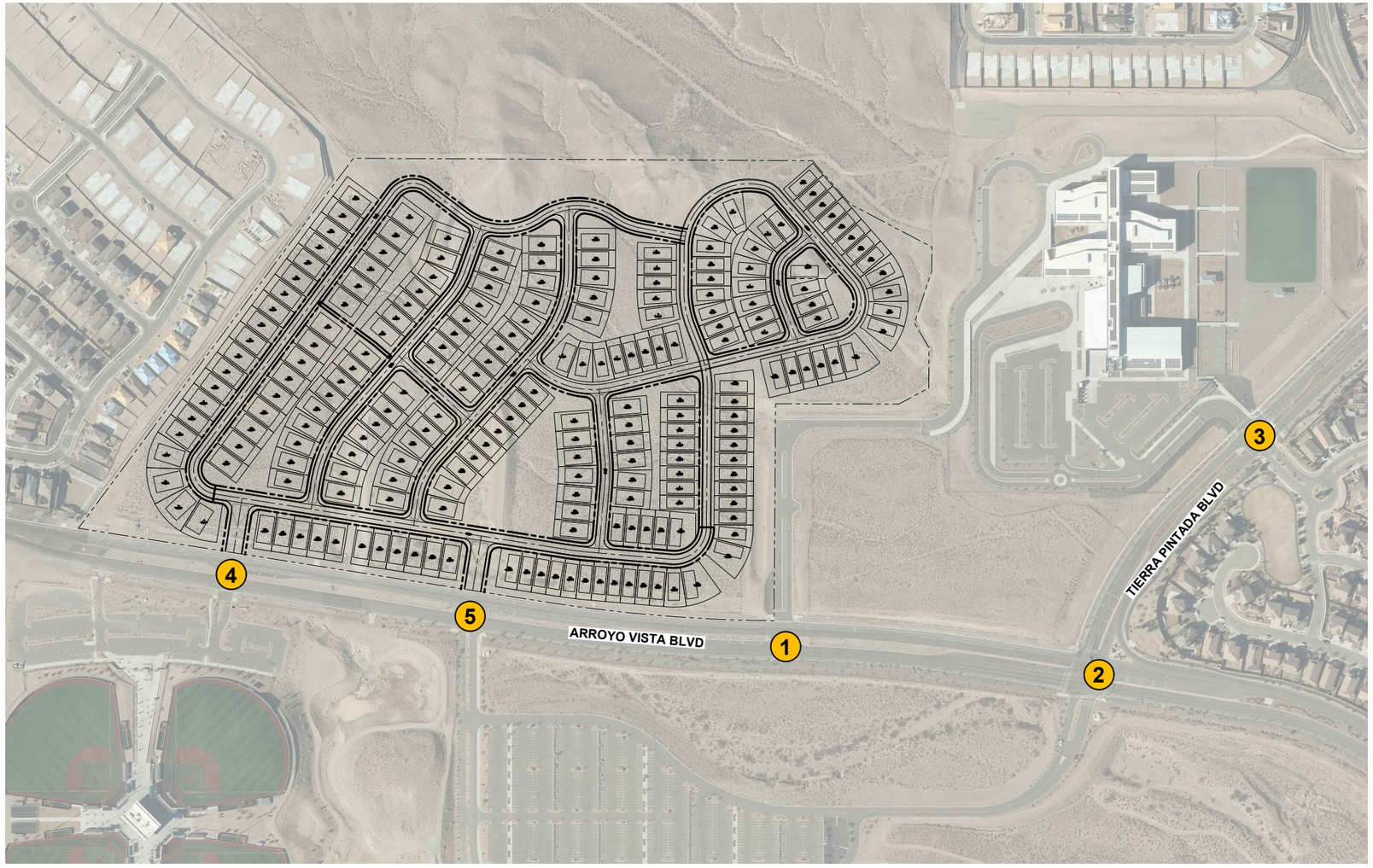
The gravity model uses the locations of employment, which are weighted by the number of jobs in the Subareas in the Albuquerque Metropolitan area divided by their distance from the site. This means that employment locations closer to the site are considered more likely, with those farther away to be less likely, depending on how many jobs are in each Subarea.

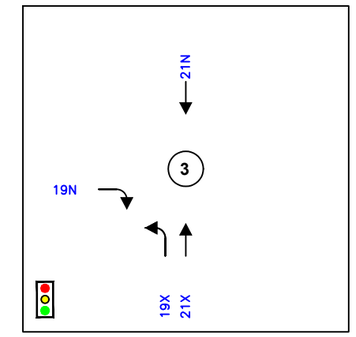
The gravity model utilized socioeconomic data obtained from the Mid Region Council of Governments (MRCOG), which included population and employment estimates for each subarea within the Albuquerque Metropolitan Planning Area to develop the trip distribution.

Trip Distribution Percentages are shown in Figure 3.

3. TRAFFIC PROJECTIONS

A background growth rate of 1% was applied to provide an estimate of potential future growth of traffic at all intersections evaluated. This growth rate was calculated by averaging the 10-year historical growth rates found in the MRCOG Traffic Flow maps. The growth rate determination and data are summarized in the spreadsheets included in Appendix C.

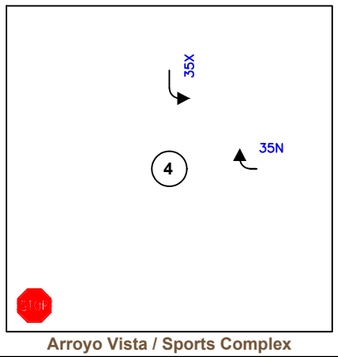




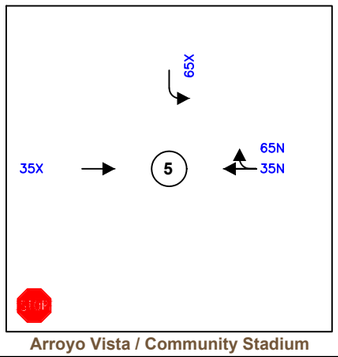
Tierra Pintada / Stormcloud

LEGEND

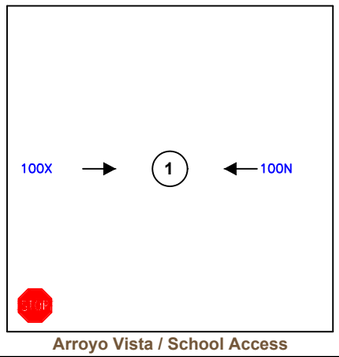
- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- NNN — Entering Percentages
- XXX — Exiting Percentages



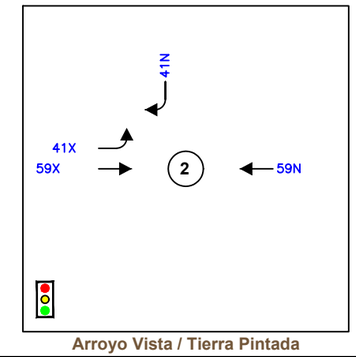
Arroyo Vista / Sports Complex



Arroyo Vista / Community Stadium



Arroyo Vista / School Access



Arroyo Vista / Tierra Pintada

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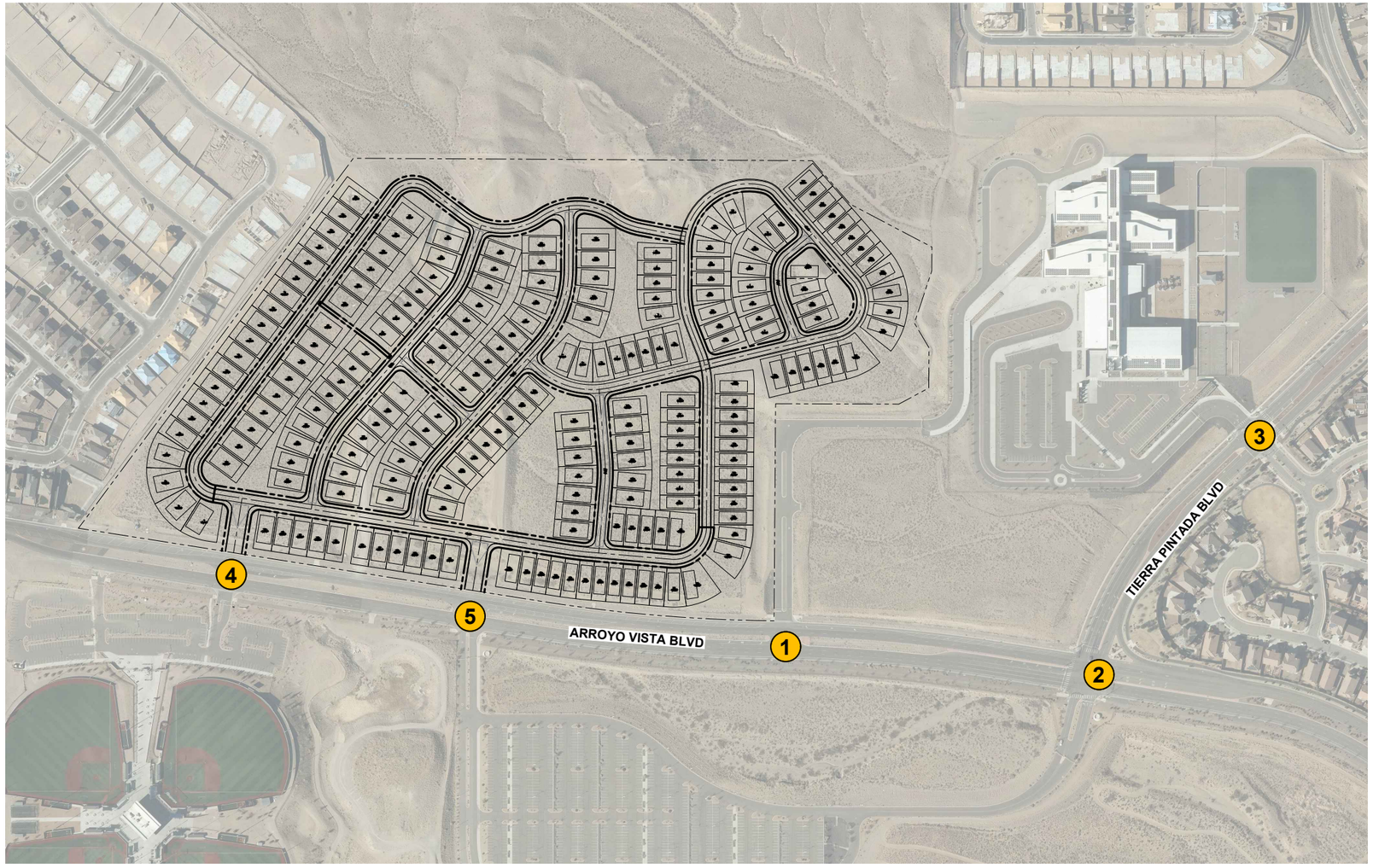
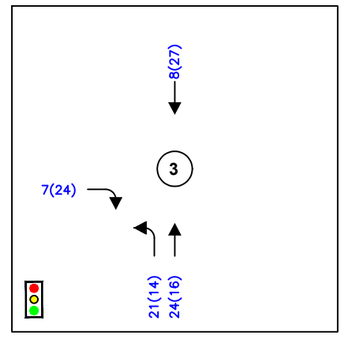
FIGURE 3
RESIDENTIAL TRIP DISTRIBUTION PERCENTAGES





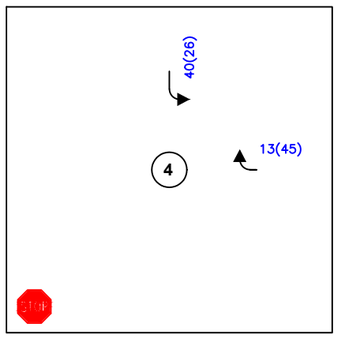
Tierra Pintada / Stormcloud

LEGEND

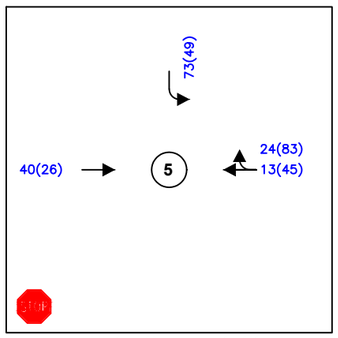
Thru Lanes
(# as indicated)

Turning Lanes
(# as indicated)

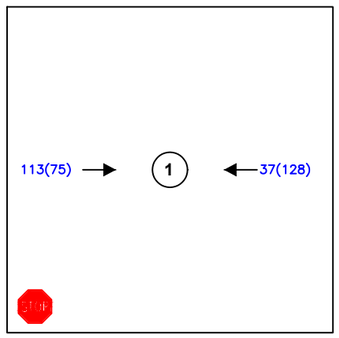
1234(1234) AM(PM) Generated Trips



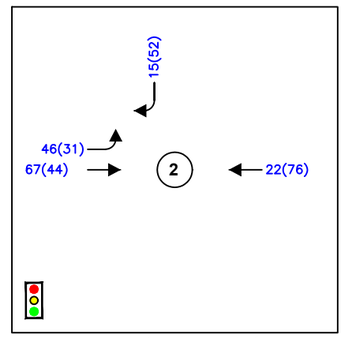
Arroyo Vista / Sports Complex



Arroyo Vista / Community Stadium



Arroyo Vista / School Access



Arroyo Vista / Tierra Pintada

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FIGURE 4
RESIDENTIAL TRIP GENERATION VOLUMES

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VI. TRAFFIC AND IMPROVEMENT ANALYSIS

A. TURN LANE REQUIREMENTS

The City of Albuquerque Development Process Manual (DPM) includes information for when turn lanes are warranted. This information was used to analyze the need for right turn lanes along Arroyo Vista at each of the proposed development entrances. Based on a design speed of 35 MPH, turning volume per hour above 50 for right turning vehicles meets the thresholds to install dedicated turn lanes.

The proposed access aligned with the Arroyo Vista & Jennifer Riordan Spark Kindness Sports Complex intersection is predicted to see 13 vehicles making a westbound right in the AM peak hour and 44 in the PM peak hour. These volumes fall below the threshold of requiring a dedicated right turn lane into the development.

The proposed access aligned with the Arroyo Vista & Nusenda Community Stadium intersection is predicted to see 24 vehicles making a westbound right in the AM peak hour and 82 vehicles during the PM peak hour. The PM peak hour exceeds the threshold of requiring a dedicated right turn lane into the development.

A verification of the volume to capacity ratio was completed in the next section to evaluate the need for three lanes along Arroyo Vista.

B. ARROYO VISTA ROADWAY

Arroyo Vista Blvd has three (3) travel lanes in each direction south of Tierra Pintada Blvd with a center median. West of Tierra Pintada Blvd, the travel lanes drop to two (2) lanes in the westbound direction to the Jennifer Riordan Spark Kindness Sports Complex. West of the Sports Complex, the roadway contains a single lane eastbound and westbound. Arroyo Vista ends just west of the existing Inspiration housing development.

The MRCOG Average Weekday Traffic Map indicates in 2018 Arroyo Vista Blvd has an average weekday traffic volume of approximately 4,000 vehicles per day (vpd) south of Tierra Pintada Blvd. The MRMPO Long Range Roadway System (LRRS) map classifies Arroyo Vista Blvd as an existing community principal arterial south of Tierra Pintada and a proposed community principal arterial west of Tierra Pintada.

The MRCOG provides information on the capacity of roadways by functional classification. An Urban Principal Arterial with a speed limit of 35 MPH or below has a capacity of 750 vehicles per hour (vph) for a (1) one lane facility, 1630 vph for a (2) two lane facility, and 2520 for a (3) three lane facility.

The traffic counts that were gathered at the intersection of Arroyo Vista and Tierra Pintada indicated the peak hour for the AM included 172 vehicles eastbound on

Arroyo Vista west of Tierra Pintada and 61 vehicles westbound. During the PM peak hour the eastbound saw a volume of 82 vehicles eastbound on Arroyo Vista and 113 vehicles westbound.

With the existing roadway having a two-lane section for westbound traffic and a three-lane section for eastbound, a calculation was done to determine what the volume to capacity ratios are in existing conditions to evaluate the need for lanes on Arroyo Vista. With the two-lane section the volume to capacity calculated to 0.07 for the westbound travel. A single lane would have a volume to capacity ratio of 0.15 for westbound travel. For eastbound travel, the three-lane section indicates a volume to capacity ratio of 0.07 during the AM peak which has the highest hourly volume. If this was decreased to two lanes eastbound the volume to capacity would increase to 0.11 and a single lane would show a volume to capacity ratio of 0.23. This low volume to capacity indicates that both lanes on Arroyo Vista westbound are not being utilized as best as possible. Eastbound indicates a similar finding that three lanes is more lanes than what is needed based on the volume on the roadway during a typical weekday.

The future of Arroyo Vista is forecasted to connect up the escarpment to Atrisco Vista which may occur in the next 15 years. With this connection traffic volumes may be impacted and may see additional traffic growth along Arroyo Vista.

As an interim condition, the east entrance to the APS development that is aligned with the Nusenda Community Stadium entrance should adjust the westbound Arroyo Vista striping to keep the bike lane in place, add a dedicated westbound right turn lane, and keep the through and left turn lane westbound. The dedicated westbound right turn lane should be 240 feet in length with a lane transition length that meets the City of Albuquerque DPM standards. The City of Albuquerque should continue to monitor this proposed right-turn lane as development occurs further west on Arroyo Vista. If three lanes on westbound Arroyo Vista are needed this interim condition should be reevaluated.

C. TRAFFIC OPERATIONS

The following section will discuss the results of the future year traffic analysis. The intersection capacity analysis was completed using HCS 2024 which implements the Highway Capacity Manual procedures.

1. 2028 NO BUILD INTERSECTION CAPACITY ANALYSIS

The 2028 No Build analysis assumes that the proposed development is not completed by the 2028 development year. Figure 5 shows the 2028 No Build Results. Table 5 and Table 6 show the No Build results. The HCS outputs are included in Appendix D.

The study found that the signalized intersections, Arroyo Vista & Tierra Pintada, as well as Tierra Pintada & Stormcloud, operate at acceptable levels of service. All movements operate at LOS B or better. Table 5 shows the No Build Signalized Results.

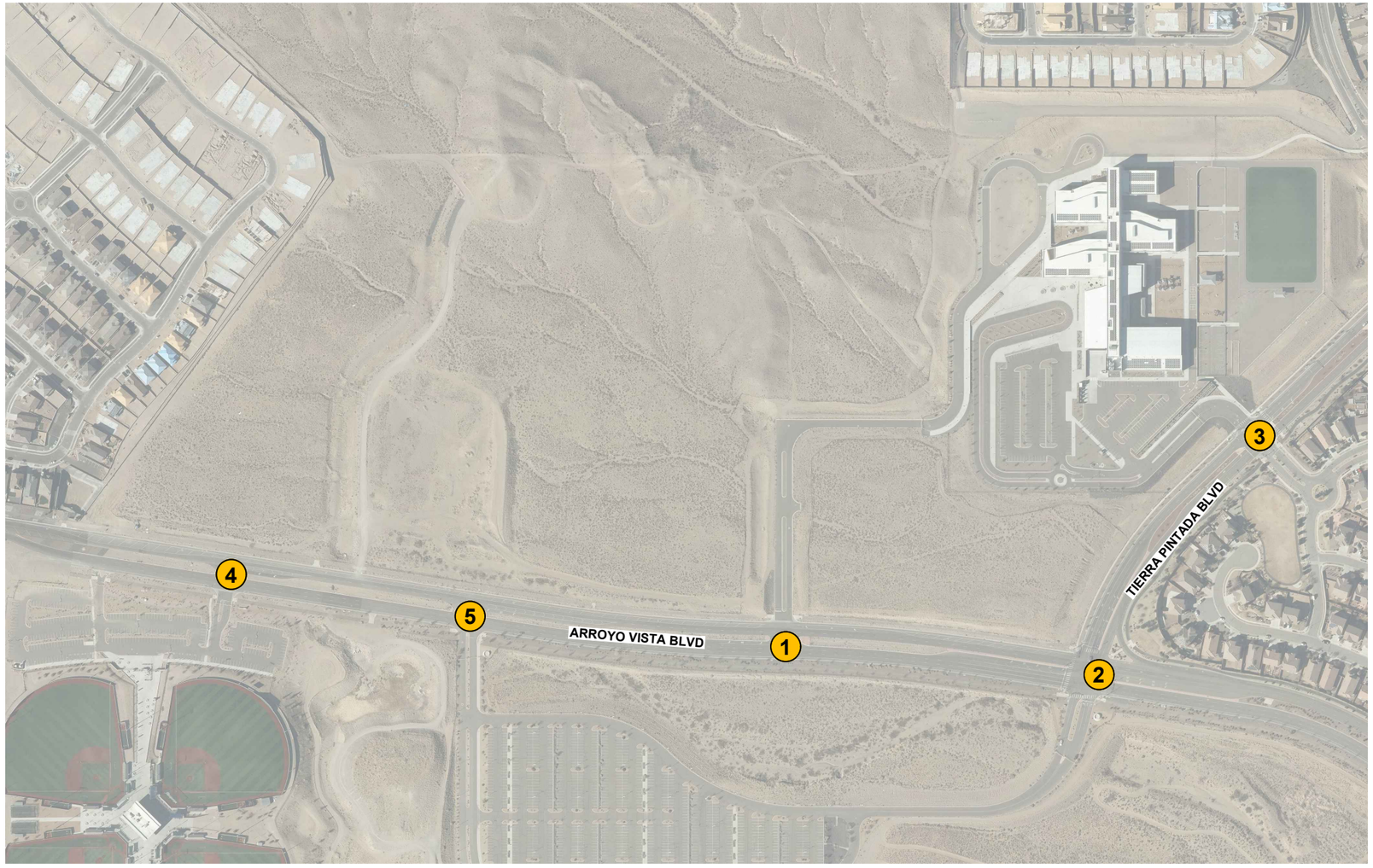
Table 5 | No Build Signalized Intersection Results

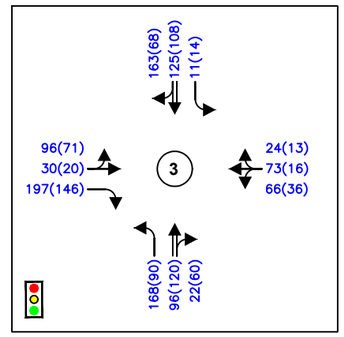
Intersection	2028 AM Peak			2028 PM Peak		
	Delay	LOS	Max V/C	Delay	LOS	Max V/C
Arroyo Vista & Tierra Pintada	**17.3**	**B**	**0.658**	**16.1**	**B**	**0.598**
Eastbound Left	12.3	B	0.102	11.2	B	0.077
Eastbound Through	12.2	B	0.065	11.0	B	0.029
Westbound Left	26.5	C	0.134	24.7	C	0.126
Westbound Through	13.4	B	0.046	12.1	B	0.068
Westbound Right	20.0	B	0.525	17.4	B	0.484
Northbound Left	0.0	-	0.000	0.0	-	0.000
Northbound Through	17.2	B	0.007	16.3	B	0.004
Northbound Right	17.2	B	0.008	0.0	-	0.000
Southbound Left	19.4	B	0.658	19.0	B	0.598
Southbound Through	9.0	A	0.0004	9.3	A	0.003
Southbound Right	8.3	A	0.054	8.8	A	0.061
Tierra Pintada & Stormcloud	**11.7**	**B**	**0.445**	**11.2**	**B**	**0.275**
Eastbound Through	7.9	A	0.158	7.9	A	0.158
Eastbound Right	8.7	A	0.265	8.7	A	0.265
Westbound Approach	8.0	A	0.187	8.0	A	0.187
Northbound Left	18.1	B	0.445	18.1	B	0.445
Northbound Through	12.6	B	0.110	12.6	B	0.110
Northbound Right	12.6	B	0.115	12.6	B	0.115
Southbound Left	13.1	B	0.023	13.1	B	0.023
Southbound Through	13.1	B	0.231	13.1	B	0.231
Southbound Right	13.7	B	0.355	13.7	B	0.355

The study found that all unsignalized intersections operate at acceptable levels of service in the 2028 No Build condition with all movements at LOS B or better for both AM and PM peak hours, as shown in the results per Table 6.

All unsignalized intersections operate optimally, at an overall level of service at LOS A. At the individual movement level, the intersections of Arroyo Vista & Sports Complex, as well as Arroyo Vista & Community Stadium, experience operational LOS B in the minor road direction, for the northbound left movements.

Table 6 | No Build Unsignalized Intersection Results								
	2028 AM Peak				2028 PM Peak			
Intersection/Movement	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Arroyo Vista & School Entrance	9.9	-	-	A	10.0	-	-	A
Eastbound Left	7.5	0.00	0	A	7.5	0.00	0	A
Southbound Approach	9.9	0.02	25	A	10.0	0.02	25	A
Arroyo Vista & Sports Complex	0.0	-	-	A	9.2	-	-	A
Westbound Left	8.8	0.00	0	A	8.5	0.00	0	A
Northbound Left	10.5	0.00	0	B	10.1	0.00	0	B
Northbound Right	9.5	0.00	0	A	9.2	0.00	0	A
Arroyo Vista & Community Stadium	9.4	-	-	A	9.2	-	-	A
Westbound Left	8.7	0.00	0	A	8.5	0.00	0	A
Northbound Left	10.3	0.00	0	B	10.2	0.00	0	B
Northbound Right	9.4	0.00	0	A	9.2	0.00	0	A
* – HCM 95th percentile queue rounded to next 25-foot increment								

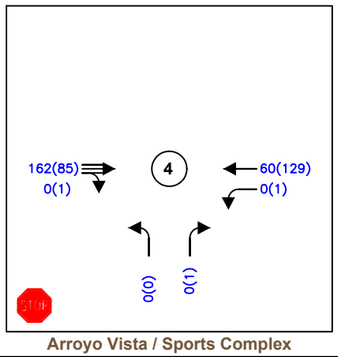




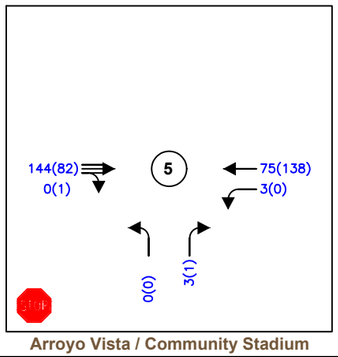
Tierra Pintada / Stormcloud

LEGEND

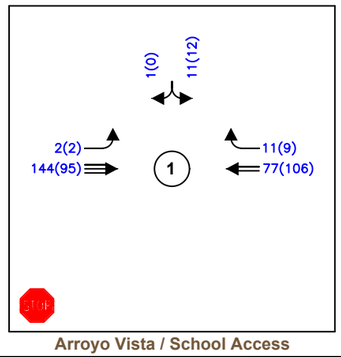
- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



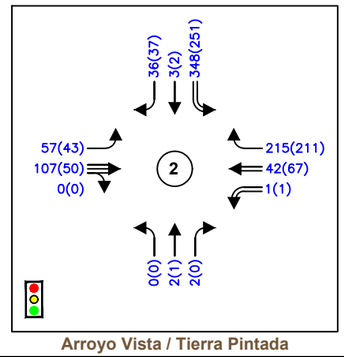
Arroyo Vista / Sports Complex



Arroyo Vista / Community Stadium



Arroyo Vista / School Access



Arroyo Vista / Tierra Pintada

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APS DEVELOPMENT SITE
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SITE TRAFFIC ANALYSIS

FIGURE 5
2028 AM(PM) NO BUILD
PEAK HOUR TRAFFIC VOLUMES

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2. 2028 BUILD INTERSECTION CAPACITY ANALYSIS

The trips generated by the site (Table 4) were assigned to the intersections using the trip percentages and associated volumes, shown in Figure 3. These trips were added to the 2028 No Build traffic projections.

The study found that both the signalized intersections operate at acceptable levels of service. The intersections operate at overall LOS B or better, with individual movements operate at LOS C or better. The 2028 Build capacity analysis is shown in Table 7 and Table 8. The individual intersection output is included in Appendix E.

Table 7 | Build Signalized Intersection Results

Intersection	2028 AM Peak			2028 PM Peak		
	Delay	LOS	Max V/C	Delay	LOS	Max V/C
Arroyo Vista & Tierra Pintada	**18.3**	**B**	**0.675**	**18.4**	**B**	**0.625**
Eastbound Left	12.6	B	0.187	13.7	B	0.154
Eastbound Through	13.2	B	0.103	13.6	B	0.059
Westbound Left	29.2	C	0.146	29.2	C	0.146
Westbound Through	15.5	B	0.075	16.1	B	0.168
Westbound Right	23.8	C	0.572	23.4	C	0.561
Northbound Left	0.0	-	0.000	0.0	-	0.000
Northbound Through	17.5	B	0.006	15.4	B	0.002
Northbound Right	17.4	B	0.007	0.0	-	0.000
Southbound Left	21.4	C	0.675	22.3	C	0.625
Southbound Through	9.3	A	0.004	8.7	A	0.003
Southbound Right	7.6	A	0.069	7.8	A	0.120
Tierra Pintada & Stormcloud	**12.0**	**B**	**0.484**	**11.5**	**B**	**0.299**
Eastbound Through	8.4	A	0.162	5.4	A	0.098
Eastbound Right	9.4	A	0.281	6.1	A	0.205
Westbound Approach	8.5	A	0.192	5.3	A	0.069
Northbound Left	18.1	B	0.484	17.0	B	0.299
Northbound Through	12.4	B	0.124	14.5	B	0.264
Northbound Right	12.4	B	0.129	14.6	B	0.282
Southbound Left	13.0	B	0.022	15.5	B	0.040
Southbound Through	12.8	B	0.232	14.5	B	0.274
Southbound Right	13.3	B	0.335	14.6	B	0.294

The study found that all unsignalized intersections operate at acceptable levels of service in the 2028 Build condition, with all movements at LOS B or better for both AM and PM peak hours.

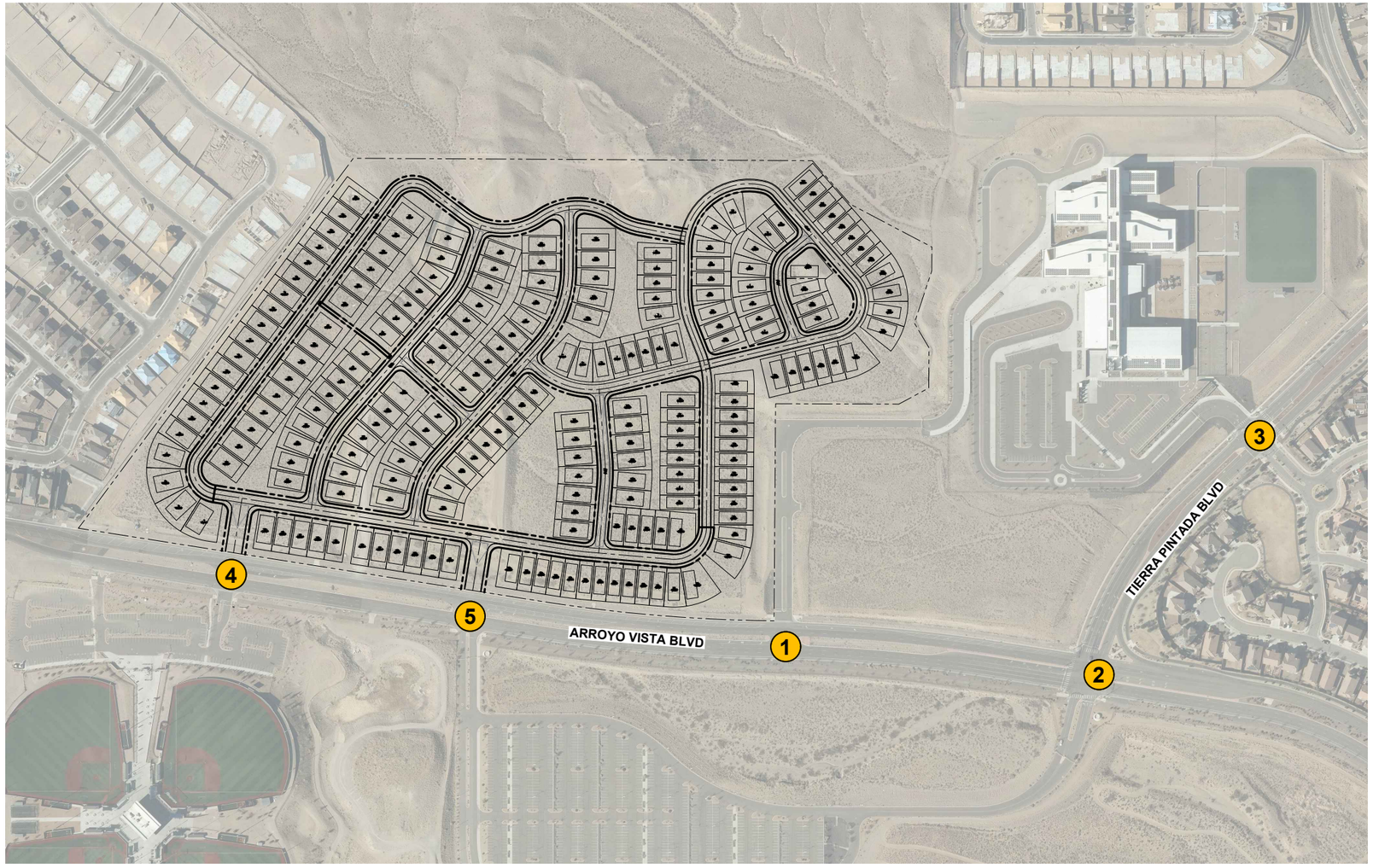
All unsignalized intersections operate at acceptable conditions, at an overall level of service at LOS B. At the individual movement level, the intersections of Arroyo Vista & Sports Complex, as well as Arroyo Vista & Community Stadium, experience operational LOS B in the minor road direction, for the northbound left and southbound

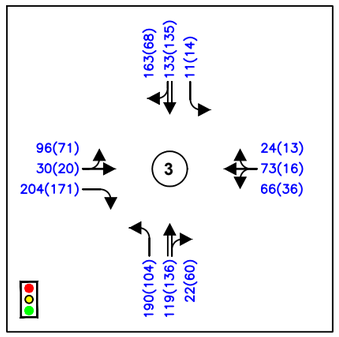
movements. The intersection of Arroyo Vista & School Entrance experienced operational LOS B for the southbound approach.

Table 8 | Build Unsignalized Intersection Results

Intersection/Movement	2028 AM Peak				2028 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Arroyo Vista & School Entrance	10.3	-	-	B	11.0	-	-	B
Eastbound Left	7.6	0.00	0	A	7.9	0.00	0	A
Southbound Approach	10.3	0.02	25	B	11.0	0.02	25	B
Arroyo Vista & Sports Complex	10.2	-	-	B	10.5	-	-	B
Eastbound Approach	7.4	0.00	0	A	7.7	0.00	0	A
Westbound Left	8.8	0.00	0	A	8.5	0.00	0	A
Northbound Left	10.7	0.00	0	B	10.5	0.00	0	B
Northbound Right	-	-	-	-	9.2	0.00	0	A
Southbound Approach	10.2	0.07	25	B	10.5	0.05	25	B
Arroyo Vista & Community Stadium	10.9	-	-	B	11.7	-	-	B
Eastbound Approach	7.5	0.00	0	A	7.9	0.00	0	A
Westbound Left	8.9	0.00	0	A	8.6	0.00	0	A
Northbound Left	11.0	0.00	0	B	11.3	0.00	0	B
Northbound Right	9.6	0.00	0	A	9.3	0.00	0	A
Southbound Approach	10.9	0.13	25	B	11.7	0.11	25	B

* – HCM 95th percentile queue rounded to next 25-foot increment

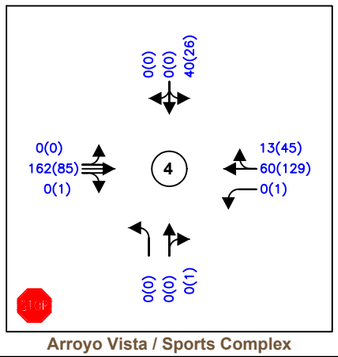




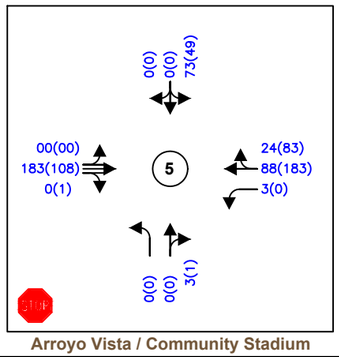
Tierra Pintada / Stormcloud

LEGEND

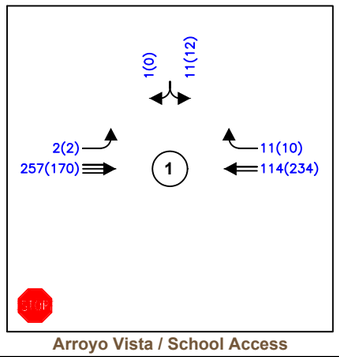
- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



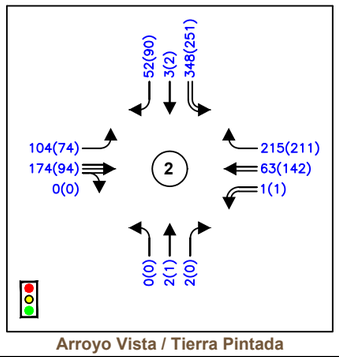
Arroyo Vista / Sports Complex



Arroyo Vista / Community Stadium



Arroyo Vista / School Access



Arroyo Vista / Tierra Pintada

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SITE TRAFFIC ANALYSIS

FIGURE 6
2028 AM(PM) BUILD
PEAK HOUR TRAFFIC VOLUMES

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3. 2038 NO BUILD INTERSECTION CAPACITY ANALYSIS

The 2038 Horizon Year No Build analysis assumes the proposed development is not completed by the 2038 time period. Figure 7 shows the 2038 Horizon Year No Build Results. Table 9 and Table 10 show a summary of the No Build results. The HCS outputs are included in Appendix F.

The study found that the signalized intersections, Arroyo Vista & Tierra Pintada, as well as Tierra Pintada & Stormcloud, operate at acceptable levels of service. All movements operate at LOS B or better.

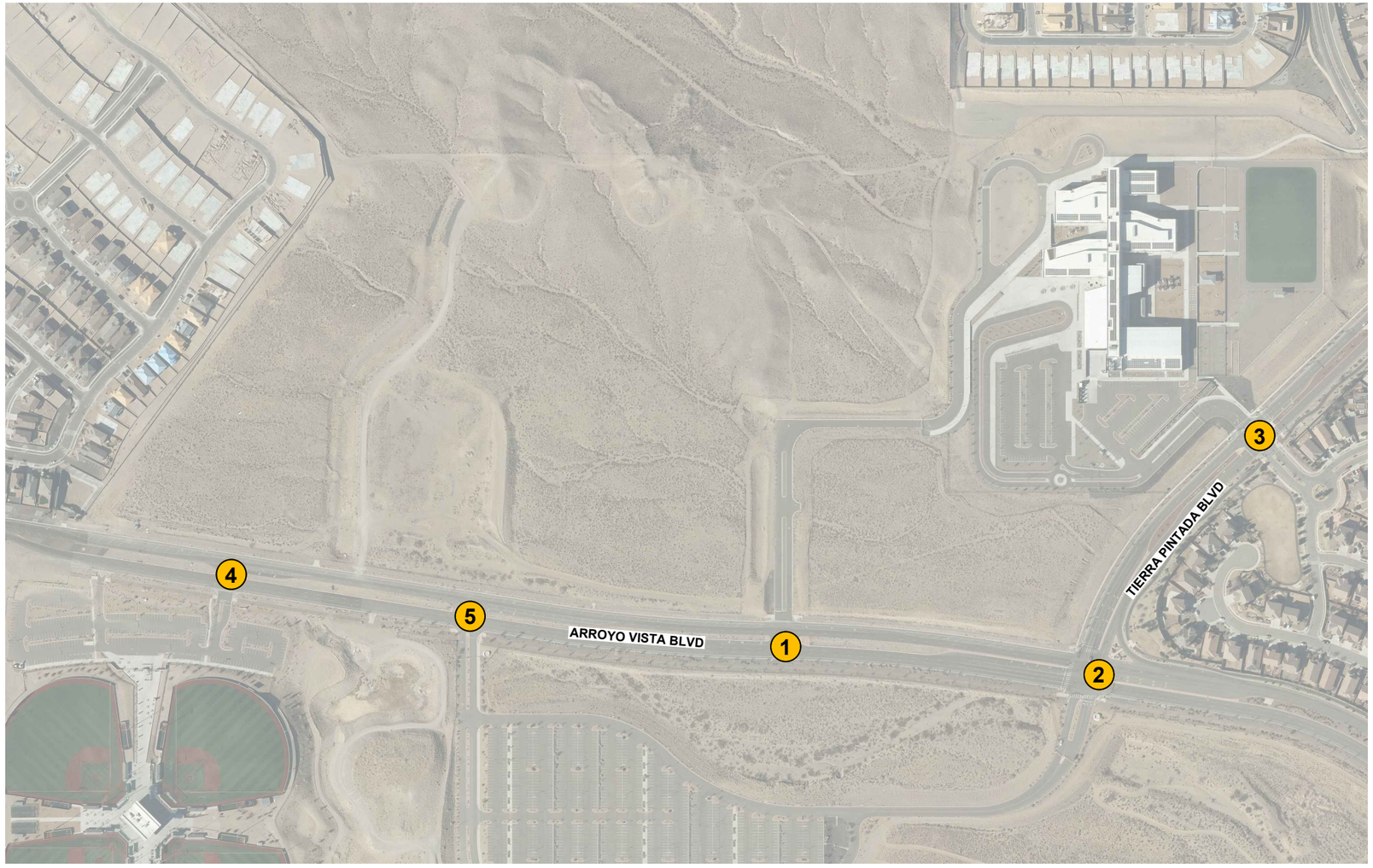
Table 9 | No Build Signalized Intersection Results

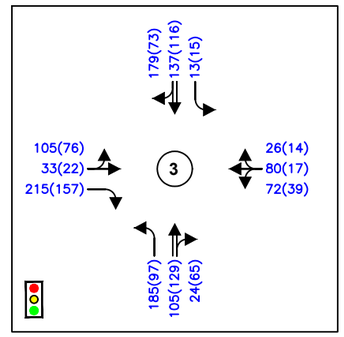
Intersection	2038 AM Peak			2038 PM Peak		
	Delay	LOS	Max V/C	Delay	LOS	Max V/C
Arroyo Vista & Tierra Pintada	**18.4**	**B**	**0.679**	**16.8**	**B**	**0.612**
Eastbound Left	12.9	B	0.116	11.6	B	0.085
Eastbound Through	12.8	B	0.072	11.4	B	0.032
Westbound Left	27.6	C	0.139	25.3	C	0.129
Westbound Through	14.2	B	0.052	12.6	B	0.075
Westbound Right	22.9	C	0.596	18.9	B	0.531
Northbound Left	0.0	-	0.000	0.0	-	0.000
Northbound Through	17.4	B	0.007	16.4	B	0.004
Northbound Right	17.4	B	0.008	0.0	-	0.000
Southbound Left	19.8	B	0.679	19.2	B	0.612
Southbound Through	8.9	A	0.004	9.2	A	0.003
Southbound Right	8.0	A	0.057	8.6	A	0.063
Tierra Pintada & Stormcloud	**12.1**	**B**	**0.481**	**11.4**	**B**	**0.295**
Eastbound Through	8.7	A	0.179	5.2	A	0.104
Eastbound Right	9.7	A	0.298	5.9	A	0.207
Westbound Approach	8.9	A	0.211	5.1	A	0.073
Northbound Left	18.4	B	0.481	16.9	B	0.282
Northbound Through	12.2	B	0.111	14.7	B	0.274
Northbound Right	12.2	B	0.117	14.8	B	0.295
Southbound Left	12.8	B	0.026	15.7	B	0.044
Southbound Through	12.8	B	0.234	14.7	B	0.268
Southbound Right	13.4	B	0.361	14.8	B	0.292

The traffic analysis found in the 2038 No Build condition all unsignalized intersections operate at acceptable Levels of Service in both the AM and PM peak hours.

All unsignalized intersections operate optimally, at an overall level of service at LOS B or better. At the individual movement level, the intersections of Arroyo Vista & Sports Complex, as well as Arroyo Vista & Community Stadium, experience operational LOS B in the minor road direction, for the northbound movements. Arroyo Vista & School Entrance, exclusively during the PM peak hour, experiences a LOS B for the southbound approach.

Table 10 | No Build Unsignalized Intersection Results								
	2038 AM Peak				2038 PM Peak			
Intersection/Movement	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Arroyo Vista & School Entrance	10.0	-	-	A	10.1	-	-	B
Eastbound Left	7.5	0.00	0	A	7.5	0.00	0	A
Southbound Approach	10.0	0.03	25	A	10.1	0.02	25	B
Arroyo Vista & Sports Complex	0.0	-	-	A	9.2	-	-	A
Westbound Left	8.9	0.00	0	A	8.5	0.00	0	A
Northbound Left	10.6	0.00	0	B	10.2	0.00	0	B
Northbound Right	9.6	0.00	0	A	9.2	0.00	0	A
Arroyo Vista & Community Stadium	9.5	-	-	A	9.2	-	-	A
Westbound Left	8.8	0.00	0	A	8.5	0.00	0	A
Northbound Left	10.4	0.00	0	B	10.3	0.00	0	B
Northbound Right	9.5	0.00	0	A	9.2	0.00	0	A
* – HCM 95th percentile queue rounded to next 25-foot increment								

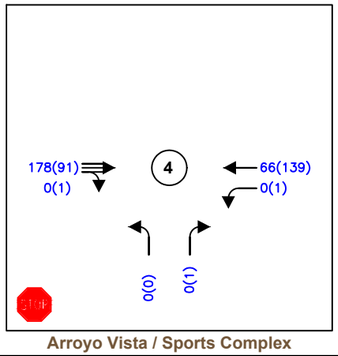




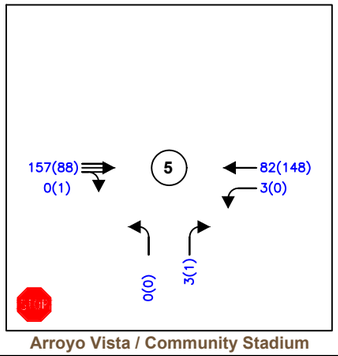
Tierra Pintada / Stormcloud

LEGEND

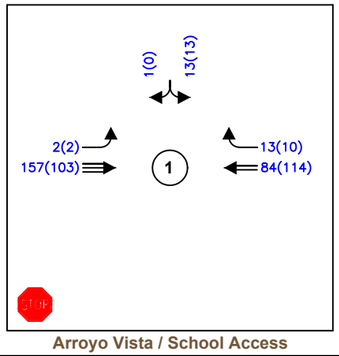
- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



Arroyo Vista / Sports Complex



Arroyo Vista / Community Stadium



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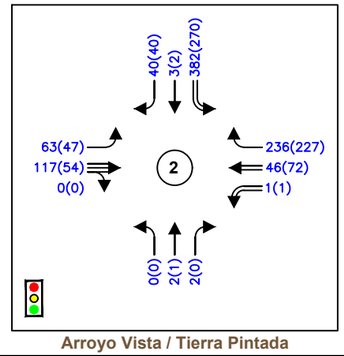

Arroyo Vista / Tierra Pintada

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FIGURE 7
2038 AM(PM) NO BUILD
PEAK HOUR TRAFFIC VOLUMES

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4. 2038 BUILD INTERSECTION CAPACITY ANALYSIS

The trips generated by the site (Table 4) were assigned to the intersections using the trip percentages and associated volumes, shown in Figure 3. These trips were added to the 2038 Horizon Year No Build traffic projections as shown in Appendix G.

Figure 8 shows the 2038 Build Traffic Volumes and a summary of the results are shown in Table 11 and Table 12.

The study found that the signalized intersections, Arroyo Vista & Tierra Pintada, as well as Tierra Pintada & Stormcloud, operate at acceptable levels of service, at an overall LOS B or better. At individual operation, all movements operate at LOS C or better.

Table 11 | Build Signalized Intersection Results

Intersection	2038 AM Peak			2038 PM Peak		
	Delay	LOS	Max V/C	Delay	LOS	Max V/C
Arroyo Vista & Tierra Pintada	**19.5**	**B**	**0.695**	**19.1**	**B**	**0.639**
Eastbound Left	13.0	B	0.200	13.9	B	0.162
Eastbound Through	13.7	B	0.110	13.9	B	0.062
Westbound Left	30.2	C	0.150	29.7	C	0.148
Westbound Through	16.3	B	0.081	16.6	B	0.176
Westbound Right	27.3	C	0.645	25.6	C	0.612
Northbound Left	0.0	-	0.000	0.0	-	0.000
Northbound Through	17.8	B	0.006	15.6	B	0.002
Northbound Right	17.7	B	0.007	0.0	-	0.000
Southbound Left	21.7	C	0.695	22.4	C	0.639
Southbound Through	9.1	A	0.004	8.7	A	0.002
Southbound Right	7.4	A	0.071	7.7	A	0.121
Tierra Pintada & Stormcloud	**12.3**	**B**	**0.517**	**11.5**	**B**	**0.297**
Eastbound Through	9.2	A	0.184	5.7	A	0.107
Eastbound Right	10.4	B	0.315	6.4	A	0.221
Westbound Approach	9.4	A	0.216	5.5	A	0.075
Northbound Left	18.5	B	0.517	17.1	B	0.314
Northbound Through	12.0	B	0.126	14.4	B	0.269
Northbound Right	12.0	B	0.130	14.5	B	0.287
Southbound Left	12.7	B	0.025	15.4	B	0.042
Southbound Through	12.5	B	0.236	14.4	B	0.277
Southbound Right	13.1	B	0.344	14.5	B	0.297

For the 2038 Build condition, the study found that all unsignalized intersections operate at an acceptable Level of Service in both the AM and PM peak hours.

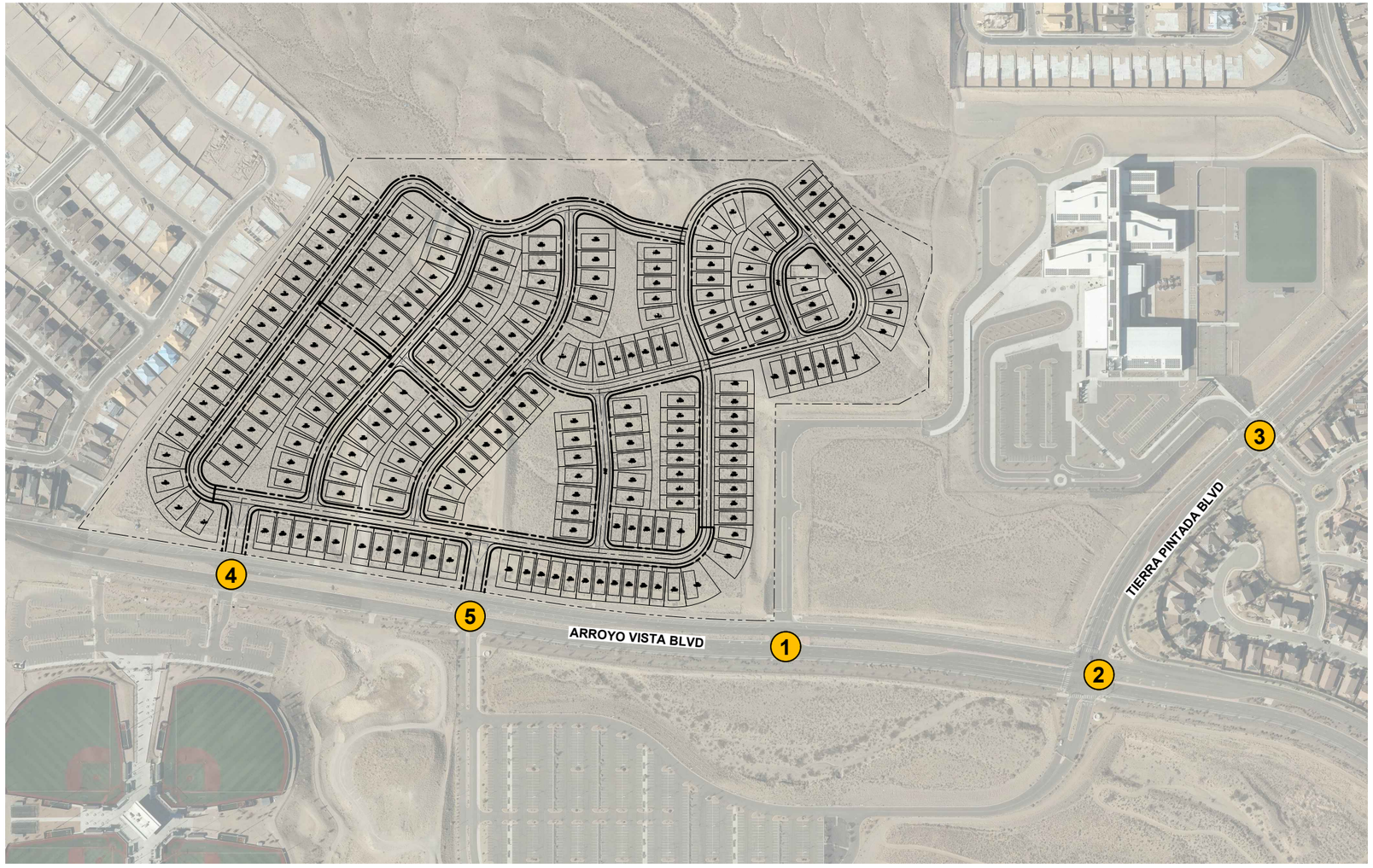
All unsignalized intersections operate at acceptable conditions, at an overall level of service at LOS B. At the individual movement level, the intersections of Arroyo Vista & Sports Complex, as well as Arroyo Vista & Community Stadium, experience operational LOS B in the minor road direction, for the northbound left and southbound

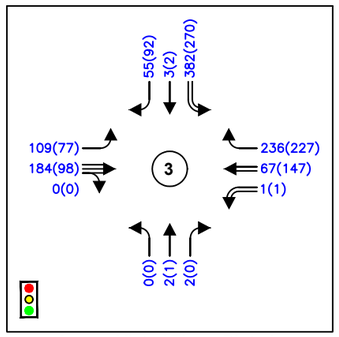
movements. The intersection of Arroyo Vista & School Entrance experiences operational LOS B for the southbound approach, for both peak hours.

Table 12 | Build Unsignalized Intersection Results

Intersection/Movement	2038 AM Peak				2038 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Arroyo Vista & School Entrance	10.5	-	-	B	11.1	-	-	B
Eastbound Left	7.6	0.00	0	A	7.9	0.00	0	A
Southbound Approach	10.5	0.03	25	B	11.1	0.03	25	B
Arroyo Vista & Sports Complex	10.3	-	-	B	10.7	-	-	B
Eastbound Approach	7.4	0.00	0	A	7.7	0.00	0	A
Westbound Left	8.9	0.00	0	A	8.5	0.00	0	A
Northbound Left	10.9	0.00	0	B	10.6	0.00	0	B
Northbound Right	-	-	-	-	9.2	0.00	0	A
Southbound Approach	10.3	0.07	25	B	10.6	0.05	25	B
Arroyo Vista & Community Stadium	11.0	-	-	B	11.8	-	-	B
Eastbound Approach	7.5	0.00	0	A	8.0	0.00	0	A
Westbound Left	9.0	0.00	0	A	8.6	0.00	0	A
Northbound Left	11.1	0.00	0	B	11.4	0.00	0	B
Northbound Right	9.6	0.00	0	A	9.3	0.00	0	A
Southbound Approach	11.0	0.13	25	B	11.8	0.11	25	B

* – HCM 95th percentile queue rounded to next 25-foot increment

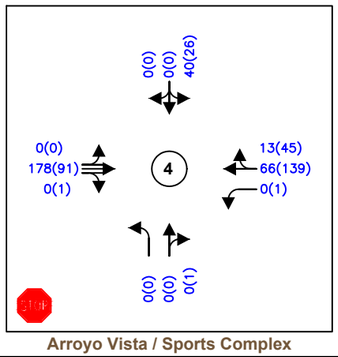




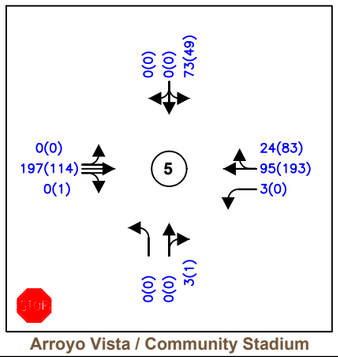
Arroyo Vista / Tierra Pintada

LEGEND

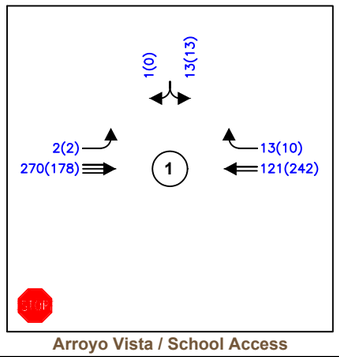
- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



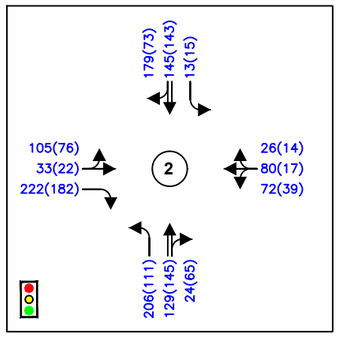
Arroyo Vista / Sports Complex



Arroyo Vista / Community Stadium



Arroyo Vista / School Access



Tierra Pintada / Stormcloud

Bohannan Huston
www.bhinc.com 800.877.5332

APS DEVELOPMENT SITE
ALBUQUERQUE, NEW MEXICO
SITE TRAFFIC ANALYSIS

FIGURE 8
2038 AM(PM) BUILD
PEAK HOUR TRAFFIC VOLUMES

P:\2024045\7_TRANS\Study\Report-Production\Report Figures\20240457_Figures.dwg Feb 13, 2025 - 4:09pm

CRASH ANALYSIS

Crash data for the Pulte APS Development study was collected for the years 2021, 2022, and 2023. The only intersections relevant to the study that experienced any crashes from this timeframe are the intersections of Arroyo Vista & Tierra Pintada, and Arroyo Vista & School Access. All occurring in 2021, both intersections experienced 1 crash.

The intersection of Arroyo Vista & Tierra Pintada experienced one crash within the designated timeframe, occurring in 2021. The crash details for this incident noted that it was a T-bone impact between vehicles, resulting from a driver who failed to yield to the right of way. The crash included a suspected minor injury which is classified as Class B.

The intersection of Arroyo Vista & School Access also experienced one crash within the time frame, in 2021. This crash was noted as a collision with an other non-fixed object. The report noted that the contributing factor for the accident was cell phone use. The crash included a suspected minor injury which is classified as Class B.

The details of these crash reports can be found in Appendix H.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The traffic analysis found that all intersections operate overall acceptably in the 2024 Existing, 2028 and 2038 No Build & Build conditions, with all intersections operating at LOS B or better.

Implementation of the APS Property residential development will not significantly change traffic patterns and would not require additional mitigative efforts at the major intersections to maintain operability.

Right turn lane warrants were evaluated, and a dedicated right turn lane is warranted at the intersection of Arroyo Vista & Nusenda Community Stadium. The PM peak hour exceeds the threshold of requiring a dedicated right turn lane into the development. Due to the future of Arroyo Vista in this area, we are proposing to install an interim condition to satisfy this right turn lane warrant. The westbound direction of Arroyo Vista should be restriped to keep the bike lane in place, add a dedicated westbound right turn lane in the existing buffer area, and keep the through and left turn lane westbound.

An analysis of the crash data information showed that crashes that have occurred in the study area are minor, and no proposed changes to these intersection are proposed in this report as the responsibility of the developer.

B. RECOMMENDATIONS

- The intersection of Arroyo Vista and the proposed east entrance to the development aligned with Nusenda Community Stadium will require a dedicated westbound right turn lane into the new development. Existing striping should be keeping the bike lane in place, add a dedicated westbound right turn lane, and keep the through and left turn lane westbound. This turn lane should be 240 feet in length with a lane transition length meeting the City of Albuquerque DPM standards.
- The two site accesses will require a single lane southbound at the intersections.
- Access points for the proposed development will be required to follow City of Albuquerque standards.
- All designs shall satisfy the Manual on Uniform Traffic Control Devices (MUTCD) and the City of Albuquerque requirements.

APPENDIX A:
EXISTING DATA

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

Counter R.C.

File Name : Arroyo Vista and Albuquerque Regional Sports Complex
Site Code : 11132024
Start Date : 11/13/2024
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Arroyo Vista Eastbound				Arroyo Vista Westbound				Albuquerque Regional Sports Complex Northbound					
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	37	0	0	37	0	6	0	6	0	0	0	0	0	43
07:15 AM	35	0	0	35	0	1	0	1	0	0	0	0	0	36
07:30 AM	43	0	1	44	0	20	0	20	0	0	0	0	0	64
07:45 AM	45	0	0	45	0	22	0	22	0	0	0	0	0	67
Total	160	0	1	161	0	49	0	49	0	0	0	0	0	210
08:00 AM	33	0	0	33	0	15	0	15	0	0	0	0	0	48
08:15 AM	21	0	0	21	0	14	0	14	0	0	0	0	0	35
08:30 AM	23	0	0	23	0	11	0	11	0	0	0	0	0	34
08:45 AM	15	0	0	15	0	12	0	12	0	0	0	0	0	27
Total	92	0	0	92	0	52	0	52	0	0	0	0	0	144
*** BREAK ***														
02:00 PM	12	0	1	13	0	14	0	14	0	0	0	0	0	27
02:15 PM	18	0	0	18	0	21	0	21	0	0	0	0	0	39
02:30 PM	30	0	0	30	0	12	0	12	0	0	0	0	0	42
02:45 PM	16	0	0	16	0	25	0	25	0	0	0	0	0	41
Total	76	0	1	77	0	72	0	72	0	0	0	0	0	149
03:00 PM	24	0	0	24	1	36	0	37	0	0	1	0	1	62
03:15 PM	17	0	0	17	0	22	0	22	0	0	0	0	0	39
03:30 PM	23	1	0	24	0	34	0	34	0	0	0	0	0	58
03:45 PM	16	0	0	16	0	30	0	30	0	0	0	0	0	46
Total	80	1	0	81	1	122	0	123	0	0	1	0	1	205
04:00 PM	18	0	0	18	0	28	0	28	0	0	0	0	0	46
04:15 PM	18	0	0	18	0	29	0	29	0	0	0	0	0	47
04:30 PM	13	0	0	13	0	30	0	30	0	0	0	0	0	43
04:45 PM	19	0	0	19	0	27	0	27	0	0	0	0	0	46
Total	68	0	0	68	0	114	0	114	0	0	0	0	0	182
05:00 PM	15	0	0	15	0	28	0	28	0	0	1	0	1	44
05:15 PM	16	0	0	16	0	22	0	22	0	0	0	0	0	38
05:30 PM	14	0	0	14	0	25	0	25	0	0	0	0	0	39
05:45 PM	15	0	0	15	0	25	0	25	0	0	0	0	0	40
Total	60	0	0	60	0	100	0	100	0	0	1	0	1	161
Grand Total	536	1	2	539	1	509	0	510	0	0	2	0	2	1051
Apprch %	99.4	0.2	0.4		0.2	99.8	0		0	0	100	0		
Total %	51	0.1	0.2	51.3	0.1	48.4	0	48.5	0	0	0.2	0	0.2	

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : Arroyo Vista and Albuquerque Regional Sports Complex
Site Code : 11132024
Start Date : 11/13/2024
Page No : 2

Groups Printed- Cars - Trucks - Buses

	Arroyo Vista Eastbound				Arroyo Vista Westbound				Albuquerque Regional Sports Complex Northbound					
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Cars	533	1	2	536	1	507	0	508	0	0	2	0	2	1046
% Cars	99.4	100	100	99.4	100	99.6	0	99.6	0	0	100	0	100	99.5
Trucks	1	0	0	1	0	1	0	1	0	0	0	0	0	2
% Trucks	0.2	0	0	0.2	0	0.2	0	0.2	0	0	0	0	0	0.2
Buses	2	0	0	2	0	1	0	1	0	0	0	0	0	3
% Buses	0.4	0	0	0.4	0	0.2	0	0.2	0	0	0	0	0	0.3

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : Arroyo Vista and Albuquerque Regional Sports Complex
Site Code : 11132024
Start Date : 11/13/2024
Page No : 3

	Arroyo Vista Eastbound			Arroyo Vista Westbound			Albuquerque Regional Sports Complex Northbound				
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:15 AM											
07:15 AM	35	0	35	0	1	1	0	0	0	0	36
07:30 AM	43	0	43	0	20	20	0	0	0	0	63
07:45 AM	45	0	45	0	22	22	0	0	0	0	67
08:00 AM	33	0	33	0	15	15	0	0	0	0	48
Total Volume	156	0	156	0	58	58	0	0	0	0	214
% App. Total	100	0		0	100		0	0	0		
PHF	.867	.000	.867	.000	.659	.659	.000	.000	.000	.000	.799
Cars	156	0	156	0	57	57	0	0	0	0	213
% Cars	100	0	100	0	98.3	98.3	0	0	0	0	99.5
Trucks	0	0	0	0	1	1	0	0	0	0	1
% Trucks	0	0	0	0	1.7	1.7	0	0	0	0	0.5
Buses	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 03:00 PM											
03:00 PM	24	0	24	1	36	37	0	0	1	1	62
03:15 PM	17	0	17	0	22	22	0	0	0	0	39
03:30 PM	23	1	24	0	34	34	0	0	0	0	58
03:45 PM	16	0	16	0	30	30	0	0	0	0	46
Total Volume	80	1	81	1	122	123	0	0	1	1	205
% App. Total	98.8	1.2		0.8	99.2		0	0	100		
PHF	.833	.250	.844	.250	.847	.831	.000	.000	.250	.250	.827
Cars	80	1	81	1	122	123	0	0	1	1	205
% Cars	100	100	100	100	100	100	0	0	100	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0
Buses	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

Counter R.C.

File Name : Arroyo Vista and Nusenda Community Stadium
Site Code : 11132024
Start Date : 11/13/2024
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Arroyo Vista Eastbound				Arroyo Vista Westbound				Nusenda Community Stadium Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	37	0	0	37	0	6	0	6	0	0	0	0	43
07:15 AM	33	0	0	33	0	1	0	1	0	0	0	0	34
07:30 AM	42	0	0	42	0	20	0	20	0	0	0	0	62
07:45 AM	44	0	0	44	0	21	0	21	0	0	0	0	65
Total	156	0	0	156	0	48	0	48	0	0	0	0	204
08:00 AM	32	0	0	32	1	17	0	18	0	1	0	1	51
08:15 AM	20	0	0	20	2	14	0	16	0	2	0	2	38
08:30 AM	22	0	0	22	0	11	0	11	0	0	0	0	33
08:45 AM	13	0	0	13	0	10	0	10	0	0	0	0	23
Total	87	0	0	87	3	52	0	55	0	3	0	3	145
*** BREAK ***													
02:00 PM	16	0	0	16	1	14	0	15	0	0	0	0	31
02:15 PM	18	0	0	18	1	23	0	24	0	1	0	1	43
02:30 PM	32	0	0	32	0	15	0	15	0	0	0	0	47
02:45 PM	12	0	0	12	0	22	0	22	0	0	0	0	34
Total	78	0	0	78	2	74	0	76	0	1	0	1	155
03:00 PM	27	1	0	28	0	39	0	39	0	1	0	1	68
03:15 PM	16	0	0	16	0	23	0	23	0	0	0	0	39
03:30 PM	21	0	0	21	0	35	0	35	0	0	0	0	56
03:45 PM	13	0	0	13	0	33	0	33	0	0	0	0	46
Total	77	1	0	78	0	130	0	130	0	1	0	1	209
04:00 PM	17	0	0	17	0	26	0	26	0	1	0	1	44
04:15 PM	19	0	0	19	0	28	0	28	0	0	0	0	47
04:30 PM	12	1	0	13	0	32	0	32	0	1	0	1	46
04:45 PM	19	0	0	19	0	26	0	26	0	0	0	0	45
Total	67	1	0	68	0	112	0	112	0	2	0	2	182
05:00 PM	15	0	0	15	0	27	0	27	0	0	0	0	42
05:15 PM	16	0	0	16	0	22	0	22	0	0	0	0	38
05:30 PM	15	0	0	15	0	25	0	25	0	0	0	0	40
05:45 PM	15	0	0	15	0	24	0	24	0	0	0	0	39
Total	61	0	0	61	0	98	0	98	0	0	0	0	159
Grand Total	526	2	0	528	5	514	0	519	0	7	0	7	1054
Apprch %	99.6	0.4	0		1	99	0		0	100	0		
Total %	49.9	0.2	0	50.1	0.5	48.8	0	49.2	0	0.7	0	0.7	

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : Arroyo Vista and Nusenda Community Stadium
Site Code : 11132024
Start Date : 11/13/2024

Groups Printed- Cars - Trucks - Buses

	Arroyo Vista Eastbound				Arroyo Vista Westbound				Nusenda Community Stadium Northbound				
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Cars	522	2	0	524	5	511	0	516	0	7	0	7	1047
% Cars	99.2	100	0	99.2	100	99.4	0	99.4	0	100	0	100	99.3
Trucks	1	0	0	1	0	1	0	1	0	0	0	0	2
% Trucks	0.2	0	0	0.2	0	0.2	0	0.2	0	0	0	0	0.2
Buses	3	0	0	3	0	2	0	2	0	0	0	0	5
% Buses	0.6	0	0	0.6	0	0.4	0	0.4	0	0	0	0	0.5

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : Arroyo Vista and Nusenda Community Stadium
Site Code : 11132024
Start Date : 11/13/2024
Page No : 3

	Arroyo Vista Eastbound			Arroyo Vista Westbound			Nusenda Community Stadium Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	42	0	42	0	20	20	0	0	0	62
07:45 AM	44	0	44	0	21	21	0	0	0	65
08:00 AM	32	0	32	1	17	18	0	1	1	51
08:15 AM	20	0	20	2	14	16	0	2	2	38
Total Volume	138	0	138	3	72	75	0	3	3	216
% App. Total	100	0		4	96		0	100		
PHF	.784	.000	.784	.375	.857	.893	.000	.375	.375	.831
Cars	137	0	137	3	71	74	0	3	3	214
% Cars	99.3	0	99.3	100	98.6	98.7	0	100	100	99.1
Trucks	1	0	1	0	1	1	0	0	0	2
% Trucks	0.7	0	0.7	0	1.4	1.3	0	0	0	0.9
Buses	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	27	1	28	0	39	39	0	1	1	68
03:15 PM	16	0	16	0	23	23	0	0	0	39
03:30 PM	21	0	21	0	35	35	0	0	0	56
03:45 PM	13	0	13	0	33	33	0	0	0	46
Total Volume	77	1	78	0	130	130	0	1	1	209
% App. Total	98.7	1.3		0	100		0	100		
PHF	.713	.250	.696	.000	.833	.833	.000	.250	.250	.768
Cars	76	1	77	0	130	130	0	1	1	208
% Cars	98.7	100	98.7	0	100	100	0	100	100	99.5
Trucks	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0
Buses	1	0	1	0	0	0	0	0	0	1
% Buses	1.3	0	1.3	0	0	0	0	0	0	0.5

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

Counter R.C.

File Name : Arroyo Vista and School Access
Site Code : 11132024
Start Date : 11/13/2024
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Arroyo Vista Eastbound				Arroyo Vista Westbound				School Access Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	0	37	0	37	6	0	0	6	0	0	0	0	43
07:15 AM	0	33	0	33	1	1	0	2	1	0	0	1	36
07:30 AM	0	42	0	42	19	1	0	20	0	0	0	0	62
07:45 AM	0	44	0	44	22	9	0	31	8	0	0	8	83
Total	0	156	0	156	48	11	0	59	9	0	0	9	224
08:00 AM	2	30	0	32	17	0	0	17	1	0	0	1	50
08:15 AM	0	22	0	22	16	1	0	17	2	1	0	3	42
08:30 AM	0	23	0	23	10	0	0	10	0	0	0	0	33
08:45 AM	0	13	0	13	11	0	0	11	0	0	0	0	24
Total	2	88	0	90	54	1	0	55	3	1	0	4	149
*** BREAK ***													
02:00 PM	0	15	0	15	14	0	0	14	1	0	0	1	30
02:15 PM	0	19	0	19	25	0	2	27	0	0	0	0	46
02:30 PM	1	31	0	32	14	7	0	21	2	0	0	2	55
02:45 PM	1	12	0	13	22	2	0	24	9	0	0	9	46
Total	2	77	0	79	75	9	2	86	12	0	0	12	177
03:00 PM	0	28	0	28	39	0	0	39	0	0	0	0	67
03:15 PM	0	16	0	16	23	0	0	23	0	0	0	0	39
03:30 PM	0	20	0	20	36	0	0	36	0	0	0	0	56
03:45 PM	0	14	0	14	32	1	0	33	1	0	0	1	48
Total	0	78	0	78	130	1	0	131	1	0	0	1	210
04:00 PM	0	18	0	18	26	1	0	27	0	0	0	0	45
04:15 PM	2	16	0	18	30	0	0	30	1	0	0	1	49
04:30 PM	0	13	0	13	29	0	0	29	0	0	0	0	42
04:45 PM	0	18	0	18	28	0	0	28	0	0	0	0	46
Total	2	65	0	67	113	1	0	114	1	0	0	1	182
05:00 PM	0	15	0	15	27	0	0	27	0	0	0	0	42
05:15 PM	0	18	0	18	22	0	0	22	0	0	0	0	40
05:30 PM	0	15	0	15	23	0	0	23	0	0	0	0	38
05:45 PM	0	15	0	15	25	0	0	25	0	0	0	0	40
Total	0	63	0	63	97	0	0	97	0	0	0	0	160
Grand Total	6	527	0	533	517	23	2	542	26	1	0	27	1102
Apprch %	1.1	98.9	0		95.4	4.2	0.4		96.3	3.7	0		
Total %	0.5	47.8	0	48.4	46.9	2.1	0.2	49.2	2.4	0.1	0	2.5	

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : Arroyo Vista and School Access
Site Code : 11132024
Start Date : 11/13/2024

Groups Printed- Cars - Trucks - Buses

	Arroyo Vista Eastbound				Arroyo Vista Westbound				School Access Southbound				
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Cars	5	524	0	529	514	4	2	520	6	1	0	7	1056
% Cars	83.3	99.4	0	99.2	99.4	17.4	100	95.9	23.1	100	0	25.9	95.8
Trucks	0	1	0	1	1	0	0	1	0	0	0	0	2
% Trucks	0	0.2	0	0.2	0.2	0	0	0.2	0	0	0	0	0.2
Buses	1	2	0	3	2	19	0	21	20	0	0	20	44
% Buses	16.7	0.4	0	0.6	0.4	82.6	0	3.9	76.9	0	0	74.1	4

Cleland Counts

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File Name : Arroyo Vista and School Access
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	Arroyo Vista Eastbound			Arroyo Vista Westbound			School Access Southbound			
Start Time	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	42	42	19	1	20	0	0	0	62
07:45 AM	0	44	44	22	9	31	8	0	8	83
08:00 AM	2	30	32	17	0	17	1	0	1	50
08:15 AM	0	22	22	16	1	17	2	1	3	42
Total Volume	2	138	140	74	11	85	11	1	12	237
% App. Total	1.4	98.6		87.1	12.9		91.7	8.3		
PHF	.250	.784	.795	.841	.306	.685	.344	.250	.375	.714
Cars	2	137	139	73	1	74	1	1	2	215
% Cars	100	99.3	99.3	98.6	9.1	87.1	9.1	100	16.7	90.7
Trucks	0	1	1	1	0	1	0	0	0	2
% Trucks	0	0.7	0.7	1.4	0	1.2	0	0	0	0.8
Buses	0	0	0	0	10	10	10	0	10	20
% Buses	0	0	0	0	90.9	11.8	90.9	0	83.3	8.4
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:15 PM										
02:15 PM	0	19	19	25	0	25	0	0	0	44
02:30 PM	1	31	32	14	7	21	2	0	2	55
02:45 PM	1	12	13	22	2	24	9	0	9	46
03:00 PM	0	28	28	39	0	39	0	0	0	67
Total Volume	2	90	92	100	9	109	11	0	11	212
% App. Total	2.2	97.8		91.7	8.3		100	0		
PHF	.500	.726	.719	.641	.321	.699	.306	.000	.306	.791
Cars	1	90	91	98	1	99	2	0	2	192
% Cars	50.0	100	98.9	98.0	11.1	90.8	18.2	0	18.2	90.6
Trucks	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0
Buses	1	0	1	2	8	10	9	0	9	20
% Buses	50.0	0	1.1	2.0	88.9	9.2	81.8	0	81.8	9.4

Cleland Counts

1441 Camino Cerritos S.E.
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(505) 414-0465

Counter R.C.

File Name : Arroyo Vista and Tierra Pintada
Site Code : 11142024
Start Date : 11/14/2024
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Arroyo Vista Eastbound					Arroyo Vista Westbound					Tierra Pintada Northbound					Tierra Pintada Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	10	30	0	0	40	2	4	21	0	27	0	0	0	0	0	41	0	2	0	43	110
07:15 AM	6	28	0	0	34	0	6	30	0	36	0	0	0	0	0	47	1	2	0	50	120
07:30 AM	18	29	0	0	47	1	8	67	0	76	0	0	1	0	1	74	0	3	0	77	201
07:45 AM	22	29	0	0	51	0	15	81	0	96	0	2	0	0	2	114	2	21	0	137	286
Total	56	116	0	0	172	3	33	199	0	235	0	2	1	0	3	276	3	28	0	307	717
08:00 AM	9	17	0	0	26	0	11	29	0	40	0	0	1	0	1	100	0	9	0	109	176
08:15 AM	3	18	0	0	21	0	13	20	0	33	0	0	0	1	1	29	0	2	0	31	86
08:30 AM	4	19	0	0	23	0	12	17	0	29	0	0	0	1	1	30	0	1	0	31	84
08:45 AM	4	14	0	0	18	0	9	16	0	25	0	0	0	0	0	23	0	1	0	24	67
Total	20	68	0	0	88	0	45	82	0	127	0	0	1	2	3	182	0	13	0	195	413
*** BREAK ***																					
02:00 PM	11	14	0	0	25	0	15	28	0	43	0	0	1	0	1	21	1	5	0	27	96
02:15 PM	2	6	0	0	8	1	16	45	0	62	0	0	1	0	1	20	0	5	0	25	96
02:30 PM	12	11	0	0	23	0	20	66	0	86	0	0	0	0	0	29	2	2	0	33	142
02:45 PM	14	12	0	0	26	0	8	51	0	59	0	0	0	0	0	76	0	17	0	93	178
Total	39	43	0	0	82	1	59	190	0	250	0	0	2	0	2	146	3	29	0	178	512
03:00 PM	9	12	0	0	21	1	13	47	0	61	0	1	0	0	1	110	0	12	0	122	205
03:15 PM	6	12	0	1	19	0	22	35	0	57	0	0	0	0	0	22	0	4	0	26	102
03:30 PM	6	12	0	0	18	0	18	30	0	48	0	0	2	0	2	22	1	8	0	31	99
03:45 PM	7	10	0	1	18	0	21	46	0	67	0	2	1	0	3	32	0	12	1	45	133
Total	28	46	0	2	76	1	74	158	0	233	0	3	3	0	6	186	1	36	1	224	539
04:00 PM	3	10	0	0	13	0	18	48	0	66	0	0	0	0	0	35	1	14	0	50	129
04:15 PM	8	7	0	0	15	0	15	37	0	52	0	0	0	0	0	37	1	12	0	50	117
04:30 PM	4	16	0	0	20	0	19	46	0	65	0	0	0	1	1	27	0	7	0	34	120
04:45 PM	4	8	0	0	12	0	21	40	0	61	0	2	0	0	2	30	0	7	0	37	112
Total	19	41	0	0	60	0	73	171	0	244	0	2	0	1	3	129	2	40	0	171	478
05:00 PM	4	11	0	0	15	0	17	67	0	84	0	0	0	1	1	35	0	8	0	43	143
05:15 PM	3	7	0	0	10	0	20	48	0	68	0	0	1	1	2	25	0	7	1	33	113
05:30 PM	5	13	0	0	18	1	20	35	0	56	0	0	0	0	0	37	0	3	0	40	114
05:45 PM	4	14	0	0	18	1	21	45	0	67	0	0	0	0	0	19	0	11	0	30	115
Total	16	45	0	0	61	2	78	195	0	275	0	0	1	2	3	116	0	29	1	146	485
Grand Total	178	359	0	2	539	7	362	995	0	1364	0	7	8	5	20	1035	9	175	2	1221	3144
Apprch %	33	66.6	0	0.4		0.5	26.5	72.9	0		0	35	40	25		84.8	0.7	14.3	0.2		
Total %	5.7	11.4	0	0.1	17.1	0.2	11.5	31.6	0	43.4	0	0.2	0.3	0.2	0.6	32.9	0.3	5.6	0.1	38.8	
Cars	176	350	0	2	528	7	347	993	0	1347	0	7	8	5	20	1035	9	172	2	1218	3113
% Cars	98.9	97.5	0	100	98	100	95.9	99.8	0	98.8	0	100	100	100	100	100	100	98.3	100	99.8	99

Cleland Counts

1441 Camino Cerritos S.E.
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Site Code : 11142024
Start Date : 11/14/2024
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Groups Printed- Cars - Trucks - Buses

	Arroyo Vista Eastbound					Arroyo Vista Westbound					Tierra Pintada Northbound					Tierra Pintada Southbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Trucks	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	2
% Trucks	0	0	0	0	0	0	0.3	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0.1
Buses	2	9	0	0	11	0	14	1	0	15	0	0	0	0	0	0	0	3	0	3	29
% Buses	1.1	2.5	0	0	2	0	3.9	0.1	0	1.1	0	0	0	0	0	0	0	1.7	0	0.2	0.9

Cleland Counts

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File Name : Arroyo Vista and Tierra Pintada
Site Code : 11142024
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	Arroyo Vista Eastbound				Arroyo Vista Westbound				Tierra Pintada Northbound				Tierra Pintada Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	6	28	0	34	0	6	30	36	0	0	0	0	47	1	2	50	120
07:30 AM	18	29	0	47	1	8	67	76	0	0	1	1	74	0	3	77	201
07:45 AM	22	29	0	51	0	15	81	96	0	2	0	2	114	2	21	137	286
08:00 AM	9	17	0	26	0	11	29	40	0	0	1	1	100	0	9	109	176
Total Volume	55	103	0	158	1	40	207	248	0	2	2	4	335	3	35	373	783
% App. Total	34.8	65.2	0		0.4	16.1	83.5		0	50	50		89.8	0.8	9.4		
PHF	.625	.888	.000	.775	.250	.667	.639	.646	.000	.250	.500	.500	.735	.375	.417	.681	.684
Cars	54	95	0	149	1	32	206	239	0	2	2	4	335	3	32	370	762
% Cars	98.2	92.2	0	94.3	100	80.0	99.5	96.4	0	100	100	100	100	100	91.4	99.2	97.3
Trucks	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0.5	0.4	0	0	0	0	0	0	0	0	0.1
Buses	1	8	0	9	0	8	0	8	0	0	0	0	0	0	3	3	20
% Buses	1.8	7.8	0	5.7	0	20.0	0	3.2	0	0	0	0	0	0	8.6	0.8	2.6
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	12	11	0	23	0	20	66	86	0	0	0	0	29	2	2	33	142
02:45 PM	14	12	0	26	0	8	51	59	0	0	0	0	76	0	17	93	178
03:00 PM	9	12	0	21	1	13	47	61	0	1	0	1	110	0	12	122	205
03:15 PM	6	12	0	18	0	22	35	57	0	0	0	0	22	0	4	26	101
Total Volume	41	47	0	88	1	63	199	263	0	1	0	1	237	2	35	274	626
% App. Total	46.6	53.4	0		0.4	24	75.7		0	100	0		86.5	0.7	12.8		
PHF	.732	.979	.000	.846	.250	.716	.754	.765	.000	.250	.000	.250	.539	.250	.515	.561	.763
Cars	41	47	0	88	1	58	199	258	0	1	0	1	237	2	35	274	621
% Cars	100	100	0	100	100	92.1	100	98.1	0	100	0	100	100	100	100	100	99.2
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	5
% Buses	0	0	0	0	0	7.9	0	1.9	0	0	0	0	0	0	0	0	0.8

Cleland Counts

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Albuquerque, New Mexico 87123
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Counter R.C.

File Name : I40 EB and 98th St.
Site Code : 11192024
Start Date : 11/19/2024
Page No : 1

Groups Printed- Cars - Trucks - Buses

	I-40 Eastbound				98th St. Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	7	13	0	20	149	103	0	252	272
07:15 AM	18	17	0	35	148	126	0	274	309
07:30 AM	5	24	0	29	184	95	0	279	308
07:45 AM	13	14	0	27	232	73	0	305	332
Total	43	68	0	111	713	397	0	1110	1221
08:00 AM	1	13	0	14	217	68	0	285	299
08:15 AM	2	15	0	17	175	62	0	237	254
08:30 AM	3	14	0	17	128	52	0	180	197
08:45 AM	4	21	0	25	147	50	0	197	222
Total	10	63	0	73	667	232	0	899	972
*** BREAK ***									
02:00 PM	8	22	0	30	240	27	0	267	297
02:15 PM	4	16	0	20	305	29	0	334	354
02:30 PM	7	20	0	27	275	22	0	297	324
02:45 PM	4	27	0	31	311	31	0	342	373
Total	23	85	0	108	1131	109	0	1240	1348
03:00 PM	7	26	0	33	334	54	0	388	421
03:15 PM	1	25	0	26	364	25	0	389	415
03:30 PM	4	21	0	25	406	32	0	438	463
03:45 PM	6	32	0	38	449	25	0	474	512
Total	18	104	0	122	1553	136	0	1689	1811
04:00 PM	15	29	0	44	395	23	0	418	462
04:15 PM	5	19	0	24	419	29	0	448	472
04:30 PM	9	11	0	20	362	18	0	380	400
04:45 PM	8	21	0	29	388	20	0	408	437
Total	37	80	0	117	1564	90	0	1654	1771
05:00 PM	4	22	0	26	400	28	0	428	454
05:15 PM	5	23	0	28	407	23	0	430	458
05:30 PM	6	28	0	34	407	36	0	443	477
05:45 PM	12	28	0	40	403	40	0	443	483
Total	27	101	0	128	1617	127	0	1744	1872
Grand Total	158	501	0	659	7245	1091	0	8336	8995
Apprch %	24	76	0		86.9	13.1	0		
Total %	1.8	5.6	0	7.3	80.5	12.1	0	92.7	

Cleland Counts

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File Name : I40 EB and 98th St.
Site Code : 11192024
Start Date : 11/19/2024
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Groups Printed- Cars - Trucks - Buses

	I-40 Eastbound				98th St. Southbound				
	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Cars	154	306	0	460	7036	1085	0	8121	8581
% Cars	97.5	61.1	0	69.8	97.1	99.5	0	97.4	95.4
Trucks	2	194	0	196	150	1	0	151	347
% Trucks	1.3	38.7	0	29.7	2.1	0.1	0	1.8	3.9
Buses	2	1	0	3	59	5	0	64	67
% Buses	1.3	0.2	0	0.5	0.8	0.5	0	0.8	0.7

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : I40 EB and 98th St.
Site Code : 11192024
Start Date : 11/19/2024

	I-40 Eastbound			98th St. Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 07:15 AM							
07:15 AM	18	17	35	148	126	274	309
07:30 AM	5	24	29	184	95	279	308
07:45 AM	13	14	27	232	73	305	332
08:00 AM	1	13	14	217	68	285	299
Total Volume	37	68	105	781	362	1143	1248
% App. Total	35.2	64.8		68.3	31.7		
PHF	.514	.708	.750	.842	.718	.937	.940
Cars	37	43	80	738	362	1100	1180
% Cars	100	63.2	76.2	94.5	100	96.2	94.6
Trucks	0	24	24	19	0	19	43
% Trucks	0	35.3	22.9	2.4	0	1.7	3.4
Buses	0	1	1	24	0	24	25
% Buses	0	1.5	1.0	3.1	0	2.1	2.0
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 03:30 PM							
03:30 PM	4	21	25	406	32	438	463
03:45 PM	6	32	38	449	25	474	512
04:00 PM	15	29	44	395	23	418	462
04:15 PM	5	19	24	419	29	448	472
Total Volume	30	101	131	1669	109	1778	1909
% App. Total	22.9	77.1		93.9	6.1		
PHF	.500	.789	.744	.929	.852	.938	.932
Cars	30	63	93	1626	108	1734	1827
% Cars	100	62.4	71.0	97.4	99.1	97.5	95.7
Trucks	0	38	38	29	0	29	67
% Trucks	0	37.6	29.0	1.7	0	1.6	3.5
Buses	0	0	0	14	1	15	15
% Buses	0	0	0	0.8	0.9	0.8	0.8

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

Counter R.C.

File Name : I-40 WB and 98th St.
Site Code : 11192024
Start Date : 11/19/2024
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Westbound					Northbound				Southbound				
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	83	0	15	0	98	13	102	0	115	169	12	0	181	394
07:15 AM	92	0	18	0	110	16	161	0	177	182	14	0	196	483
07:30 AM	121	0	19	0	140	18	266	0	284	158	15	0	173	597
07:45 AM	137	0	25	0	162	22	245	0	267	168	5	0	173	602
Total	433	0	77	0	510	69	774	0	843	677	46	0	723	2076
08:00 AM	118	2	34	0	154	10	137	0	147	167	18	0	185	486
08:15 AM	133	2	20	0	155	10	110	0	120	104	8	0	112	387
08:30 AM	93	0	19	0	112	13	53	1	67	87	5	0	92	271
08:45 AM	118	0	21	0	139	20	59	0	79	79	9	0	88	306
Total	462	4	94	0	560	53	359	1	413	437	40	0	477	1450
*** BREAK ***														
02:00 PM	203	0	42	0	245	18	82	0	100	64	5	0	69	414
02:15 PM	247	0	37	0	284	20	56	0	76	87	13	0	100	460
02:30 PM	235	0	47	0	282	21	71	0	92	62	11	0	73	447
02:45 PM	275	0	45	0	320	25	53	0	78	66	11	0	77	475
Total	960	0	171	0	1131	84	262	0	346	279	40	0	319	1796
03:00 PM	294	0	49	0	343	12	65	0	77	94	9	0	103	523
03:15 PM	332	0	60	0	392	25	52	1	78	57	6	0	63	533
03:30 PM	397	0	73	0	470	24	87	0	111	41	10	0	51	632
03:45 PM	386	0	50	0	436	17	82	0	99	88	7	0	95	630
Total	1409	0	232	0	1641	78	286	1	365	280	32	0	312	2318
04:00 PM	357	0	66	0	423	19	73	0	92	61	6	0	67	582
04:15 PM	352	0	53	0	405	13	76	0	89	96	7	0	103	597
04:30 PM	331	0	63	0	394	22	85	0	107	49	7	0	56	557
04:45 PM	335	0	66	0	401	22	74	0	96	73	8	0	81	578
Total	1375	0	248	0	1623	76	308	0	384	279	28	0	307	2314
05:00 PM	339	0	82	0	421	26	77	0	103	84	5	0	89	613
05:15 PM	346	0	80	0	426	24	78	0	102	84	11	0	95	623
05:30 PM	346	0	78	0	424	19	70	0	89	97	17	0	114	627
05:45 PM	353	0	66	0	419	25	50	0	75	90	14	0	104	598
Total	1384	0	306	0	1690	94	275	0	369	355	47	0	402	2461
Grand Total	6023	4	1128	0	7155	454	2264	2	2720	2307	233	0	2540	12415
Apprch %	84.2	0.1	15.8	0		16.7	83.2	0.1		90.8	9.2	0		
Total %	48.5	0	9.1	0	57.6	3.7	18.2	0	21.9	18.6	1.9	0	20.5	

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : I-40 WB and 98th St.
Site Code : 11192024
Start Date : 11/19/2024
Page No : 2

Groups Printed- Cars - Trucks - Buses

	Westbound					Northbound				Southbound				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Cars	5816	2	1119	0	6937	325	2236	2	2563	2300	227	0	2527	12027
% Cars	96.6	50	99.2	0	97	71.6	98.8	100	94.2	99.7	97.4	0	99.5	96.9
Trucks	150	2	0	0	152	128	15	0	143	0	0	0	0	295
% Trucks	2.5	50	0	0	2.1	28.2	0.7	0	5.3	0	0	0	0	2.4
Buses	57	0	9	0	66	1	13	0	14	7	6	0	13	93
% Buses	0.9	0	0.8	0	0.9	0.2	0.6	0	0.5	0.3	2.6	0	0.5	0.7

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : I-40 WB and 98th St.
Site Code : 11192024
Start Date : 11/19/2024
Page No : 3

	Westbound				Northbound			Southbound			
Start Time	Left	Thru	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:15 AM											
07:15 AM	92	0	18	110	16	161	177	182	14	196	483
07:30 AM	121	0	19	140	18	266	284	158	15	173	597
07:45 AM	137	0	25	162	22	245	267	168	5	173	602
08:00 AM	118	2	34	154	10	137	147	167	18	185	486
Total Volume	468	2	96	566	66	809	875	675	52	727	2168
% App. Total	82.7	0.4	17		7.5	92.5		92.8	7.2		
PHF	.854	.250	.706	.873	.750	.760	.770	.927	.722	.927	.900
Cars	426	0	94	520	45	795	840	674	50	724	2084
% Cars	91.0	0	97.9	91.9	68.2	98.3	96.0	99.9	96.2	99.6	96.1
Trucks	19	2	0	21	21	10	31	0	0	0	52
% Trucks	4.1	100	0	3.7	31.8	1.2	3.5	0	0	0	2.4
Buses	23	0	2	25	0	4	4	1	2	3	32
% Buses	4.9	0	2.1	4.4	0	0.5	0.5	0.1	3.8	0.4	1.5
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 05:00 PM											
05:00 PM	339	0	82	421	26	77	103	84	5	89	613
05:15 PM	346	0	80	426	24	78	102	84	11	95	623
05:30 PM	346	0	78	424	19	70	89	97	17	114	627
05:45 PM	353	0	66	419	25	50	75	90	14	104	598
Total Volume	1384	0	306	1690	94	275	369	355	47	402	2461
% App. Total	81.9	0	18.1		25.5	74.5		88.3	11.7		
PHF	.980	.000	.933	.992	.904	.881	.896	.915	.691	.882	.981
Cars	1365	0	305	1670	70	275	345	355	47	402	2417
% Cars	98.6	0	99.7	98.8	74.5	100	93.5	100	100	100	98.2
Trucks	18	0	0	18	24	0	24	0	0	0	42
% Trucks	1.3	0	0	1.1	25.5	0	6.5	0	0	0	1.7
Buses	1	0	1	2	0	0	0	0	0	0	2
% Buses	0.1	0	0.3	0.1	0	0	0	0	0	0	0.1

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

Counter R.C.

File Name : Tierra Pintada and Stormcloud
Site Code : 11142024
Start Date : 11/14/2024
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Tres Volcanes School Eastbound						Stormcloud Westbound						Tierra Pintada Northbound						Tierra Pintada Southbound						
Start Time	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Int. Total
07:00 AM	0	0	3	0	0	3	12	2	2	0	3	19	5	23	4	0	3	35	1	29	6	0	0	36	93
07:15 AM	2	0	7	0	0	9	16	1	6	0	1	24	12	22	2	0	2	38	1	28	12	0	0	41	112
07:30 AM	4	3	25	0	0	32	22	6	11	0	26	65	48	24	4	0	2	78	4	32	49	0	0	85	260
07:45 AM	45	15	95	0	0	155	13	56	4	0	46	119	88	20	10	0	4	122	5	35	84	0	0	124	520
Total	51	18	130	0	0	199	63	65	23	0	76	227	153	89	20	0	11	273	11	124	151	0	0	286	985
08:00 AM	41	11	62	0	0	114	12	7	2	0	4	25	14	26	5	0	4	49	1	25	12	0	0	38	226
08:15 AM	5	0	6	0	0	11	9	0	0	0	1	10	5	16	1	0	0	22	0	19	2	0	0	21	64
08:30 AM	0	0	0	0	0	0	6	0	0	0	0	6	0	18	3	0	1	22	0	22	1	0	0	23	51
08:45 AM	1	0	0	0	0	1	5	0	0	0	1	6	1	15	1	0	0	17	0	19	0	0	0	19	43
Total	47	11	68	0	0	126	32	7	2	0	6	47	20	75	10	0	5	110	1	85	15	0	0	101	384
*** BREAK ***																									
02:00 PM	0	0	3	0	0	3	7	1	3	0	0	11	8	24	6	1	1	40	1	16	4	0	0	21	75
02:15 PM	1	0	0	0	0	1	6	0	2	0	0	8	20	19	7	0	0	46	1	20	13	0	0	34	89
02:30 PM	2	0	2	0	1	5	10	12	5	0	2	29	41	25	15	0	1	82	5	19	28	0	0	52	168
02:45 PM	18	8	72	0	0	98	5	3	1	0	116	125	19	27	21	1	18	86	6	26	21	0	0	53	362
Total	21	8	77	0	1	107	28	16	11	0	118	173	88	95	49	2	20	254	13	81	66	0	0	160	694
03:00 PM	46	11	64	0	1	122	13	0	4	1	13	31	5	42	14	1	2	64	1	37	2	0	0	40	257
03:15 PM	12	1	4	0	0	17	6	0	0	0	0	6	3	35	6	0	0	44	3	16	3	0	0	22	89
03:30 PM	6	1	3	0	0	10	4	0	1	0	0	5	4	28	3	0	1	36	0	26	7	0	0	33	84
03:45 PM	10	2	10	0	0	22	5	1	0	0	0	6	8	39	14	0	5	66	1	29	3	0	1	34	128
Total	74	15	81	0	1	171	28	1	5	1	13	48	20	144	37	1	8	210	5	108	15	0	1	129	558
04:00 PM	10	0	9	0	0	19	6	1	1	0	2	10	3	41	9	0	0	53	1	34	2	0	0	37	119
04:15 PM	2	0	8	0	0	10	8	0	0	0	0	8	7	32	10	0	3	52	5	37	3	0	0	45	115
04:30 PM	1	2	3	0	0	6	5	1	2	0	0	8	3	32	16	0	1	52	5	25	4	0	0	34	100
04:45 PM	6	2	3	0	0	11	5	3	1	0	0	9	7	33	7	0	1	48	2	30	9	0	0	41	109
Total	19	4	23	0	0	46	24	5	4	0	2	35	20	138	42	0	5	205	13	126	18	0	0	157	443
05:00 PM	14	3	11	0	0	28	6	1	1	0	3	11	14	36	17	0	1	68	3	23	4	0	0	30	137
05:15 PM	7	0	4	0	0	11	0	0	2	0	0	2	3	45	10	0	2	60	2	31	0	0	0	33	106
05:30 PM	4	0	3	0	0	7	9	0	0	0	0	9	3	25	11	0	0	39	1	28	4	0	0	33	88
05:45 PM	5	0	1	0	0	6	1	0	0	0	0	1	0	33	16	0	0	49	1	26	4	0	0	31	87
Total	30	3	19	0	0	52	16	1	3	0	3	23	20	139	54	0	3	216	7	108	12	0	0	127	418
Grand Total	242	59	398	0	2	701	191	95	48	1	218	553	321	680	212	3	52	1268	50	632	277	0	1	960	3482
Apprch %	34.5	8.4	56.8	0	0.3		34.5	17.2	8.7	0.2	39.4		25.3	53.6	16.7	0.2	4.1		5.2	65.8	28.9	0	0.1		
Total %	7	1.7	11.4	0	0.1	20.1	5.5	2.7	1.4	0	6.3	15.9	9.2	19.5	6.1	0.1	1.5	36.4	1.4	18.2	8	0	0	27.6	
Cars	242	59	398	0	2	701	189	95	48	1	218	551	321	675	212	3	52	1263	50	628	277	0	1	956	3471
% Cars	100	100	100	0	100	100	99	100	100	100	100	99.6	100	99.3	100	100	100	99.6	100	99.4	100	0	100	99.6	99.7

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : Tierra Pintada and Stormcloud
Site Code : 11142024
Start Date : 11/14/2024

Groups Printed- Cars - Trucks - Buses

	Tres Volcanes School Eastbound						Stormcloud Westbound						Tierra Pintada Northbound						Tierra Pintada Southbound						
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Int. Total
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	0	0	0	0	0	0	2	0	0	0	0	2	0	5	0	0	0	5	0	4	0	0	0	4	11
% Buses	0	0	0	0	0	0	1	0	0	0	0	0.4	0	0.7	0	0	0	0.4	0	0.6	0	0	0	0.4	0.3

Cleland Counts

1441 Camino Cerritos S.E.
Albuquerque, New Mexico 87123
(505) 414-0465

File Name : Tierra Pintada and Stormcloud
Site Code : 11142024
Start Date : 11/14/2024

	Tres Volcanes School Eastbound				Stormcloud Westbound				Tierra Pintada Northbound				Tierra Pintada Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	0	7	9	16	1	6	23	12	22	2	36	1	28	12	41	109
07:30 AM	4	3	25	32	22	6	11	39	48	24	4	76	4	32	49	85	232
07:45 AM	45	15	95	155	13	56	4	73	88	20	10	118	5	35	84	124	470
08:00 AM	41	11	62	114	12	7	2	21	14	26	5	45	1	25	12	38	218
Total Volume	92	29	189	310	63	70	23	156	162	92	21	275	11	120	157	288	1029
% App. Total	29.7	9.4	61		40.4	44.9	14.7		58.9	33.5	7.6		3.8	41.7	54.5		
PHF	.511	.483	.497	.500	.716	.313	.523	.534	.460	.885	.525	.583	.550	.857	.467	.581	.547
Cars	92	29	189	310	62	70	23	155	162	91	21	274	11	118	157	286	1025
% Cars	100	100	100	100	98.4	100	100	99.4	100	98.9	100	99.6	100	98.3	100	99.3	99.6
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	0	0	0	0	1	0	0	1	0	1	0	1	0	2	0	2	4
% Buses	0	0	0	0	1.6	0	0	0.6	0	1.1	0	0.4	0	1.7	0	0.7	0.4
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:15 PM																	
02:15 PM	1	0	0	1	6	0	2	8	20	19	7	46	1	20	13	34	89
02:30 PM	2	0	2	4	10	12	5	27	41	25	15	81	5	19	28	52	164
02:45 PM	18	8	72	98	5	3	1	9	19	27	21	67	6	26	21	53	227
03:00 PM	46	11	64	121	13	0	4	17	5	42	14	61	1	37	2	40	239
Total Volume	67	19	138	224	34	15	12	61	85	113	57	255	13	102	64	179	719
% App. Total	29.9	8.5	61.6		55.7	24.6	19.7		33.3	44.3	22.4		7.3	57	35.8		
PHF	.364	.432	.479	.463	.654	.313	.600	.565	.518	.673	.679	.787	.542	.689	.571	.844	.752
Cars	67	19	138	224	34	15	12	61	85	112	57	254	13	100	64	177	716
% Cars	100	100	100	100	100	100	100	100	100	99.1	100	99.6	100	98.0	100	98.9	99.6
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
% Buses	0	0	0	0	0	0	0	0	0	0.9	0	0.4	0	2.0	0	1.1	0.4

APPENDIX B:
2024 EXISTING INTERSECTION CAPACITY ANALYSIS

HCS Two-Way Stop-Control Report

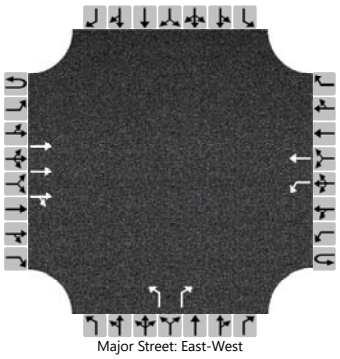
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/11/2024
Analysis Year	2024
Time Analyzed	EXAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			138	0	0	3	72			0		3				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4				0		4				
Capacity, c (veh/h)						972				685		819				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)						0.0						0.0				
Control Delay (s/veh)						8.7				10.3		9.4				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.3				9.4							
Approach LOS					A				A							

HCS Two-Way Stop-Control Report

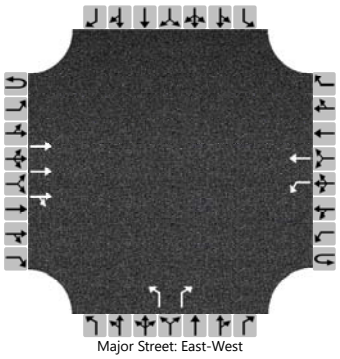
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/11/2024
Analysis Year	2024
Time Analyzed	EXPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.77
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			77	1	0	0	130			0		1				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						0				0		1				
Capacity, c (veh/h)						1041				696		858				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)												0.0				
Control Delay (s/veh)						8.5				10.2		9.2				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.0				9.2							
Approach LOS					A				A							

HCS Two-Way Stop-Control Report

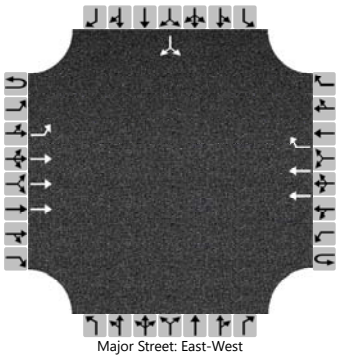
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/11/2024
Analysis Year	2024
Time Analyzed	EXAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.71
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	138				74	11						11		1
Percent Heavy Vehicles (%)	1	1												0		0
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized					No											
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.12												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.21												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													17	
Capacity, c (veh/h)		1473													759	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.4													9.9	
Level of Service (LOS)		A													A	
Approach Delay (s/veh)	0.1												9.9			
Approach LOS	A												A			

HCS Two-Way Stop-Control Report

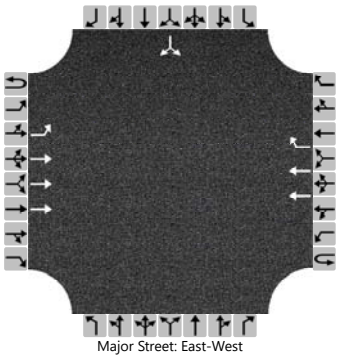
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/11/2024
Analysis Year	2024
Time Analyzed	EXPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.79
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	90				100	9						11		0
Percent Heavy Vehicles (%)	0	0												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.10												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.20												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													14	
Capacity, c (veh/h)		1458													743	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.5													9.9	
Level of Service (LOS)		A													A	
Approach Delay (s/veh)		0.2												9.9		
Approach LOS		A												A		

HCS Two-Way Stop-Control Report

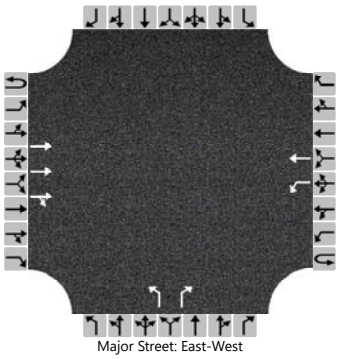
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/11/2024
Analysis Year	2024
Time Analyzed	EXAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.80
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			156	0	0	0	58			0		0				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						0				0		0				
Capacity, c (veh/h)						943				667		803				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)												0.0				
Control Delay (s/veh)						8.8				10.4		9.5				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.0											
Approach LOS					A											

HCS Two-Way Stop-Control Report

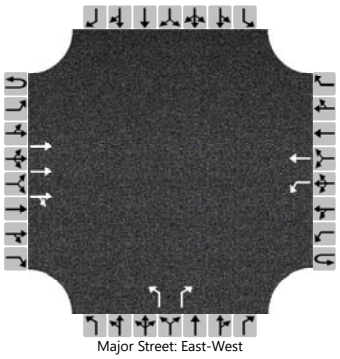
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/11/2024
Analysis Year	2024
Time Analyzed	EXPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			80	1	0	1	122			0		1				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

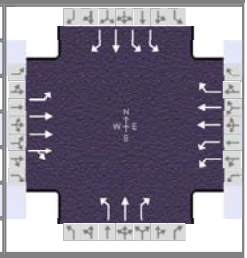
Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1				0		1				
Capacity, c (veh/h)						1045				709		861				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)						0.0						0.0				
Control Delay (s/veh)						8.4				10.1		9.2				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.1				9.2							
Approach LOS					A				A							

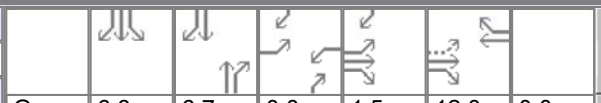
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 13, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	EXAM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2024 EXAM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				

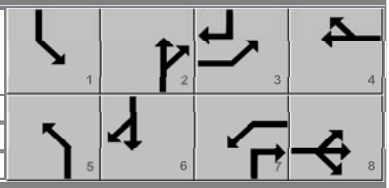


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	55	103	0	1	40	207	0	2	2	335	3	35

Signal Information			
Cycle, s	46.7	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	6.8	6.7	0.0	1.5	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



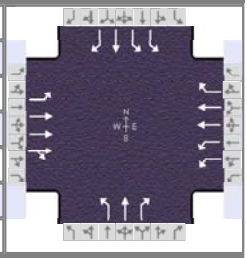
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	5.6	19.0	4.0	17.5	0.0	12.7	10.8	23.6
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.3	3.1	3.3
Queue Clearance Time (g_s), s	3.0	2.6	2.0	7.1		2.0	6.2	2.6
Green Extension Time (g_e), s	0.1	0.6	0.0	0.4	0.0	0.0	0.7	0.0
Phase Call Probability	0.51	1.00	0.01	1.00		0.42	0.99	0.99
Max Out Probability	0.00	0.01	0.00	0.28		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	55	103	0	1	40	207	0	2	2	335	3	35
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	1.0	0.6	0.0	0.0	0.4	5.1	0.0	0.0	0.0	4.2	0.0	0.6
Cycle Queue Clearance Time (g_c), s	1.0	0.6	0.0	0.0	0.4	5.1	0.0	0.0	0.0	4.2	0.0	0.6
Green Ratio (*g/C*)	0.29	0.29		0.00	0.26	0.26		0.14	0.15	0.15	0.38	0.41
Capacity (*c*), veh/h	561	1654		8	930	414	4	274	234	516	716	661
Volume-to-Capacity Ratio (*X*)	0.098	0.062	0.000	0.133	0.043	0.500	0.000	0.007	0.009	0.649	0.004	0.053
Back of Queue (*Q*), ft/ln (95 th percentile)	16	10	0	0	6	92	0	1	1	68	1	7
Back of Queue (*Q*), veh/ln (95 th percentile)	0.6	0.4	0.0	0.0	0.3	3.7	0.0	0.0	0.0	2.7	0.0	0.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	12.1	12.0		23.3	13.0	14.8	0.0	17.1	17.1	18.8	9.1	8.3
Incremental Delay (d_2), s/veh	0.0	0.1	0.0	2.9	0.1	4.3	0.0	0.0	0.0	0.5	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	12.1	12.0		26.2	13.1	19.1	0.0	17.1	17.1	19.3	9.1	8.3
Level of Service (LOS)	B	B		C	B	B		B	B	B	A	A
Approach Delay, s/veh / LOS	12.1	B		18.2	B		17.1	B		18.2	B	
Intersection Delay, s/veh / LOS	16.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.26	B	2.26	B	2.70	C	2.40	B
Bicycle LOS Score / LOS	0.57	A	0.69	A	0.49	A	1.10	A

HCS Signalized Intersection Results Summary

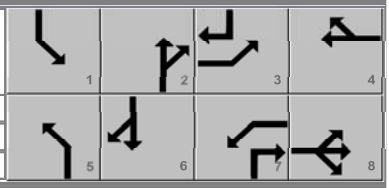
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 13, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	EXPM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2024 EXPM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	41	47	0	1	63	199	0	1	0	237	2	35

Signal Information			
Cycle, s	44.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.0	6.4	0.0	1.1	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



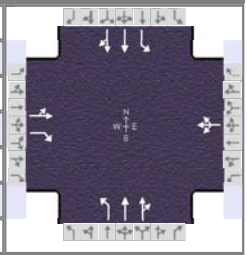
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	5.2	18.6	4.0	17.5	0.0	12.4	9.0	21.5
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.3	3.1	3.3
Queue Clearance Time (g_s), s	2.7	2.3	2.0	6.5		2.0	4.8	2.6
Green Extension Time (g_e), s	0.0	0.5	0.0	0.4	0.0	0.0	0.5	0.0
Phase Call Probability	0.40	1.00	0.01	1.00		0.37	0.95	0.97
Max Out Probability	0.00	0.01	0.00	0.17		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	41	47	0	1	63	199	0	1	0	237	2	35
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	0.7	0.3	0.0	0.0	0.6	4.5	0.0	0.0	0.0	2.8	0.0	0.6
Cycle Queue Clearance Time (g_c), s	0.7	0.3	0.0	0.0	0.6	4.5	0.0	0.0	0.0	2.8	0.0	0.6
Green Ratio (*g/C*)	0.30	0.30		0.00	0.27	0.27		0.15	0.15	0.11	0.35	0.38
Capacity (*c*), veh/h	564	1698		8	983	438	4	276	235	401	665	607
Volume-to-Capacity Ratio (*X*)	0.073	0.028	0.000	0.126	0.064	0.455	0.000	0.004	0.000	0.590	0.003	0.058
Back of Queue (*Q*), ft/ln (95 th percentile)	10	4	0	0	9	78	0	0	0	46	0	7
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	0.2	0.0	0.0	0.4	3.1	0.0	0.0	0.0	1.8	0.0	0.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	11.1	11.0		22.0	11.9	13.4	0.0	16.1	0.0	18.6	9.3	8.8
Incremental Delay (d_2), s/veh	0.0	0.0	0.0	2.6	0.1	3.4	0.0	0.0	0.0	0.5	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	11.1	11.0		24.6	12.0	16.8	0.0	16.1	0.0	19.1	9.3	8.8
Level of Service (LOS)	B	B		C	B	B		B		B	A	A
Approach Delay, s/veh / LOS	11.1	B		15.7	B		16.1	B		17.7	B	
Intersection Delay, s/veh / LOS	15.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.25	B	2.26	B	2.69	C	2.40	B
Bicycle LOS Score / LOS	0.54	A	0.70	A	0.49	A	0.94	A

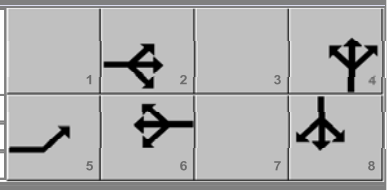
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	12/13/2024	Area Type	Other
Jurisdiction	CoA	Time Period	EXAM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2024 EXAM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	92	29	189	63	70	23	162	92	21	11	120	157

Signal Information											
Cycle, s	47.0	Reference Phase	2								
Offset, s	0	Reference Point	End								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								
				Green	22.0	13.0	0.0	0.0	0.0	0.0	
				Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
				Red	2.0	2.0	0.0	0.0	0.0	0.0	



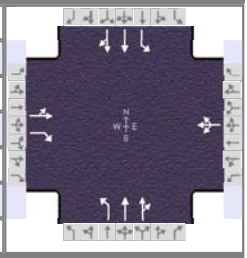
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		19.0		19.0
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.3		3.3
Queue Clearance Time (*g s*), s		5.3		4.3		12.1		5.7
Green Extension Time (*g e*), s	0.0	0.9		0.9		0.9		1.1
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.10		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		121	189		156		162	57	56	11	120	157
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1443	1610		1655		1120	1900	1780	1300	1900	1610
Queue Service Time (*g s*), s		1.8	3.3		0.0		6.4	1.0	1.1	0.3	2.3	3.7
Cycle Queue Clearance Time (*g c*), s		1.8	3.3		2.3		10.1	1.0	1.1	1.4	2.3	3.7
Green Ratio (*g/C*)		0.47	0.47		0.47		0.28	0.28	0.28	0.28	0.28	0.28
Capacity (*c*), veh/h		810	753		882		375	526	493	482	526	446
Volume-to-Capacity Ratio (*X*)		0.149	0.251		0.177		0.432	0.108	0.114	0.023	0.228	0.352
Back of Queue (*Q*), ft/ln (95 th percentile)		26	45		34		64	17	17	3	37	51
Back of Queue (*Q*), veh/ln (95 th percentile)		1.0	1.8		1.4		2.6	0.7	0.7	0.1	1.5	2.0
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		7.2	7.5		7.3		17.7	12.7	12.7	13.2	13.1	13.6
Incremental Delay (*d 2*), s/veh		0.4	0.8		0.4		0.3	0.0	0.0	0.0	0.1	0.2
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		7.6	8.3		7.7		18.0	12.7	12.7	13.3	13.2	13.8
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	8.0	A		7.7	A		15.8	B		13.5	B	
Intersection Delay, s/veh / LOS	11.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.23	B	2.23	B	1.67	B	1.90	B
Bicycle LOS Score / LOS	1.00	A	0.75	A	0.71	A	0.73	A

HCS Signalized Intersection Results Summary

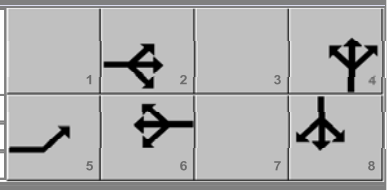
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 13, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	EXPM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2024 EXPM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	67	19	138	34	15	12	85	113	57	13	102	64

Signal Information			
Cycle, s	41.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	22.0	7.9	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	2.0	2.0	0.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		13.9		13.9
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.2		3.2
Queue Clearance Time (*g s*), s		3.9		2.7		6.4		4.1
Green Extension Time (*g e*), s	0.0	0.5		0.5		0.7		0.8
Phase Call Probability		1.00		1.00		0.99		0.99
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		86	138		61		85	87	83	13	85	81
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1503	1610		1570		1239	1900	1692	1234	1900	1664
Queue Service Time (*g s*), s		1.0	1.9		0.0		2.6	1.6	1.8	0.4	1.6	1.7
Cycle Queue Clearance Time (*g c*), s		1.0	1.9		0.7		4.4	1.6	1.8	2.1	1.6	1.7
Green Ratio (*g/C*)		0.52	0.52		0.52		0.19	0.19	0.19	0.19	0.19	0.19
Capacity (*c*), veh/h		941	844		957		355	360	321	354	360	315
Volume-to-Capacity Ratio (*X*)		0.091	0.163		0.064		0.239	0.241	0.260	0.037	0.236	0.257
Back of Queue (*Q*), ft/ln (95 th percentile)		12	21		8		29	26	26	4	26	25
Back of Queue (*Q*), veh/ln (95 th percentile)		0.5	0.8		0.3		1.1	1.1	1.0	0.2	1.0	1.0
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		5.0	5.2		4.9		16.3	14.4	14.5	15.4	14.4	14.5
Incremental Delay (*d 2*), s/veh		0.2	0.4		0.1		0.1	0.1	0.2	0.0	0.1	0.2
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		5.2	5.6		5.0		16.5	14.6	14.7	15.4	14.5	14.6
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	5.4	A		5.0	A		15.2	B		14.7	B	
Intersection Delay, s/veh / LOS	11.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.22	B	2.22	B	1.68	B	1.90	B
Bicycle LOS Score / LOS	0.86	A	0.59	A	0.70	A	0.64	A

APPENDIX C:
TURNING MOVEMENT DEVELOPMENT

APS TIA DEVELOPMENT
EXISTING & PROJECTED TURNING MOVEMENTS

INTERSECTION: ARROYO VISTA AND SCHOOL ENTRANCE

AM Peak Hour

	Eastbound ARROYO VISTA			Westbound ARROYO VISTA			Northbound			Southbound SCHOOL ACCESS		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)	2	138			74	11				11		1
Background Growth	0	6	0	0	3	0	0	0	0	0	0	0
2028 No Build	2	144	0	0	77	11	0	0	0	11	0	1
Entering					37							
Exiting		113										
2028 Build	2	257	0	0	114	11	0	0	0	11	0	1
Horizon Year Growth	0	19	0	0	10	2	0	0	0	2	0	0
2038 Horizon No Build	2	157	0	0	84	13	0	0	0	13	0	1
2038 Horizon Build	2	270	0	0	121	13	0	0	0	13	0	1
PHF	*0.71*			*0.71*			*0.71*			*0.71*		
HV %		*0*			*1*			*0*			*1*	

PM Peak Hour

	Eastbound ARROYO VISTA			Westbound ARROYO VISTA			Northbound			Southbound SCHOOL ACCESS		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)	2	90			100	9				11		0
Background Growth	0	5	0	0	6	1	0	0	0	1	0	0
2028 No Build	2	95	0	0	106	10	0	0	0	12	0	0
Entering					128							
Exiting		75										
2028 Build	2	170	0	0	234	10	0	0	0	12	0	0
Horizon Year Growth	0	13	0	0	14	1	0	0	0	2	0	0
2038 Horizon No Build	2	103	0	0	114	10	0	0	0	13	0	0
2038 Horizon Build	2	178	0	0	242	10	0	0	0	13	0	0
PHF	*0.79*			*0.79*			*0.79*			*0.79*		
HV %		*0*			*0*			*0*			*0*	

growth rates	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Trip Distribution % Enter					100.0%							
Trip Distribution % Exit	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

APS TIA DEVELOPMENT
EXISTING & PROJECTED TURNING MOVEMENTS

INTERSECTION: ARROYO VISTA AND TIERRA PINTADA

AM Peak Hour

	Eastbound ARROYO VISTA			Westbound ARROYO VISTA			Northbound TIERRA PINTADA			Southbound TIERRA PINTADA		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)	55	103	0	1	40	207	0	2	2	335	3	35
Background Growth	2	4	0	0	2	8	0	0	0	13	0	1
2028 No Build	57	107	0	1	42	215	0	2	2	348	3	36
Entering					22							15
Exiting	46	67										
2028 Build	104	174	0	1	63	215	0	2	2	348	3	52
Horizon Year Growth	8	14	0	0	6	29	0	0	0	47	0	5
2038 Horizon No Build	63	117	0	1	46	236	0	2	2	382	3	40
2038 Horizon Build	109	184	0	1	67	236	0	2	2	382	3	55
PHF	*0.68*			*0.68*			*0.68*			*0.68*		
HV %		*0*			*0*			*0*			*0*	

PM Peak Hour

	Eastbound ARROYO VISTA			Westbound ARROYO VISTA			Northbound TIERRA PINTADA			Southbound TIERRA PINTADA		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)	41	47	0	1	63	199	0	1	0	237	2	35
Background Growth	2	3	0	0	4	12	0	0	0	14	0	2
2028 No Build	43	50	0	1	67	211	0	1	0	251	2	37
Entering					76							52
Exiting	31	44										
2028 Build	74	94	0	1	142	211	0	1	0	251	2	90
Horizon Year Growth	6	7	0	0	9	28	0	0	0	33	0	5
2038 Horizon No Build	47	54	0	1	72	227	0	1	0	270	2	40
2038 Horizon Build	77	98	0	1	147	227	0	1	0	270	2	92
PHF	*0.76*			*0.76*			*0.76*			*0.76*		
HV %		*0*			*0*			*0*			*0*	

growth rates	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Trip Distribution % Enter					59.0%							41.0%
Trip Distribution % Exit	41.0%	59.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

APS TIA DEVELOPMENT
EXISTING & PROJECTED TURNING MOVEMENTS

INTERSECTION: TIERRA PINTADA AND STORMCLOUD

AM Peak Hour

	Eastbound SCHOOL ENTRANCE			Westbound STORMCLOUD			Northbound TIERRA PINTADA			Southbound TIERRA PINTADA		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)	92	29	189	63	70	23	162	92	21	11	120	157
Background Growth	4	1	8	3	3	1	6	4	1	0	5	6
2028 No Build	96	30	197	66	73	24	168	96	22	11	125	163
Entering			7								8	
Exiting							21	24				
2028 Build	96	30	204	66	73	24	190	119	22	11	133	163
Horizon Year Growth	13	4	26	9	10	3	23	13	3	2	17	22
2038 Horizon No Build	105	33	215	72	80	26	185	105	24	13	137	179
2038 Horizon Build	105	33	222	72	80	26	206	129	24	13	145	179
PHF	*0.55*			*0.55*			*0.55*			*0.55*		
HV %		*0*			*0*			*0*			*0*	

PM Peak Hour

	Eastbound SCHOOL ENTRANCE			Westbound STORMCLOUD			Northbound TIERRA PINTADA			Southbound TIERRA PINTADA		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)	67	19	138	34	15	12	85	113	57	13	102	64
Background Growth	4	1	8	2	1	1	5	7	3	1	6	4
2028 No Build	71	20	146	36	16	13	90	120	60	14	108	68
Entering			24								27	
Exiting							14	16				
2028 Build	71	20	171	36	16	13	104	136	60	14	135	68
Horizon Year Growth	9	3	19	5	2	2	12	16	8	2	14	9
2038 Horizon No Build	76	22	157	39	17	14	97	129	65	15	116	73
2038 Horizon Build	76	22	182	39	17	14	111	145	65	15	143	73
PHF	*0.75*			*0.75*			*0.75*			*0.75*		
HV %		*0*			*0*			*0*			*0*	

growth rates	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Trip Distribution % Enter			19.0%								21.0%	
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.0%	21.0%	0.0%	0.0%	0.0%	0.0%

APS TIA DEVELOPMENT
EXISTING & PROJECTED TURNING MOVEMENTS

INTERSECTION: ARROYO VISTA AND JENNIFER RIORDAN SPARK KINDNESS SPORTS COMPLEX

AM Peak Hour

	Eastbound ARROYO VISTA			Westbound ARROYO VISTA			Northbound SPORTS COMPLEX ACCESS			Southbound ACCESS 1		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)		156	0	0	58		0	0	0			
Background Growth	0	6	0	0	2	0	0	0	0	0	0	0
2028 No Build	0	162	0	0	60	0	0	0	0	0	0	0
Entering						13						
Exiting										40		
2028 Build	0	162	0	0	60	13	0	0	0	40	0	0
Horizon Year Growth	0	22	0	0	8	0	0	0	0	0	0	0
2038 Horizon No Build	0	178	0	0	66	0	0	0	0	0	0	0
2038 Horizon Build	0	178	0	0	66	13	0	0	0	40	0	0
PHF	*0.80*			*0.80*			*0.80*			*0.80*		
HV %		*0*			*1*			*0*			*0*	

PM Peak Hour

	Eastbound ARROYO VISTA			Westbound ARROYO VISTA			Northbound SPORTS COMPLEX ACCESS			Southbound ACCESS 1		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)		80	1	1	122		0	0	1			
Background Growth	0	5	0	0	7	0	0	0	0	0	0	0
2028 No Build	0	85	1	1	129	0	0	0	1	0	0	0
Entering						45						
Exiting										26		
2028 Build	0	85	1	1	129	45	0	0	1	26	0	0
Horizon Year Growth	0	11	0	0	17	0	0	0	0	0	0	0
2038 Horizon No Build	0	91	1	1	139	0	0	0	1	0	0	0
2038 Horizon Build	0	91	1	1	139	45	0	0	1	26	0	0
PHF	*0.83*			*0.83*			*0.83*			*0.83*		
HV %		*0*			*0*			*0*			*0*	

growth rates	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Trip Distribution % Enter						35.0%						
Trip Distribution % Exit										35.0%		

APS TIA DEVELOPMENT
EXISTING & PROJECTED TURNING MOVEMENTS

INTERSECTION: ARROYO VISTA AND NUSENDA COMMUNITY STADIUM

AM Peak Hour

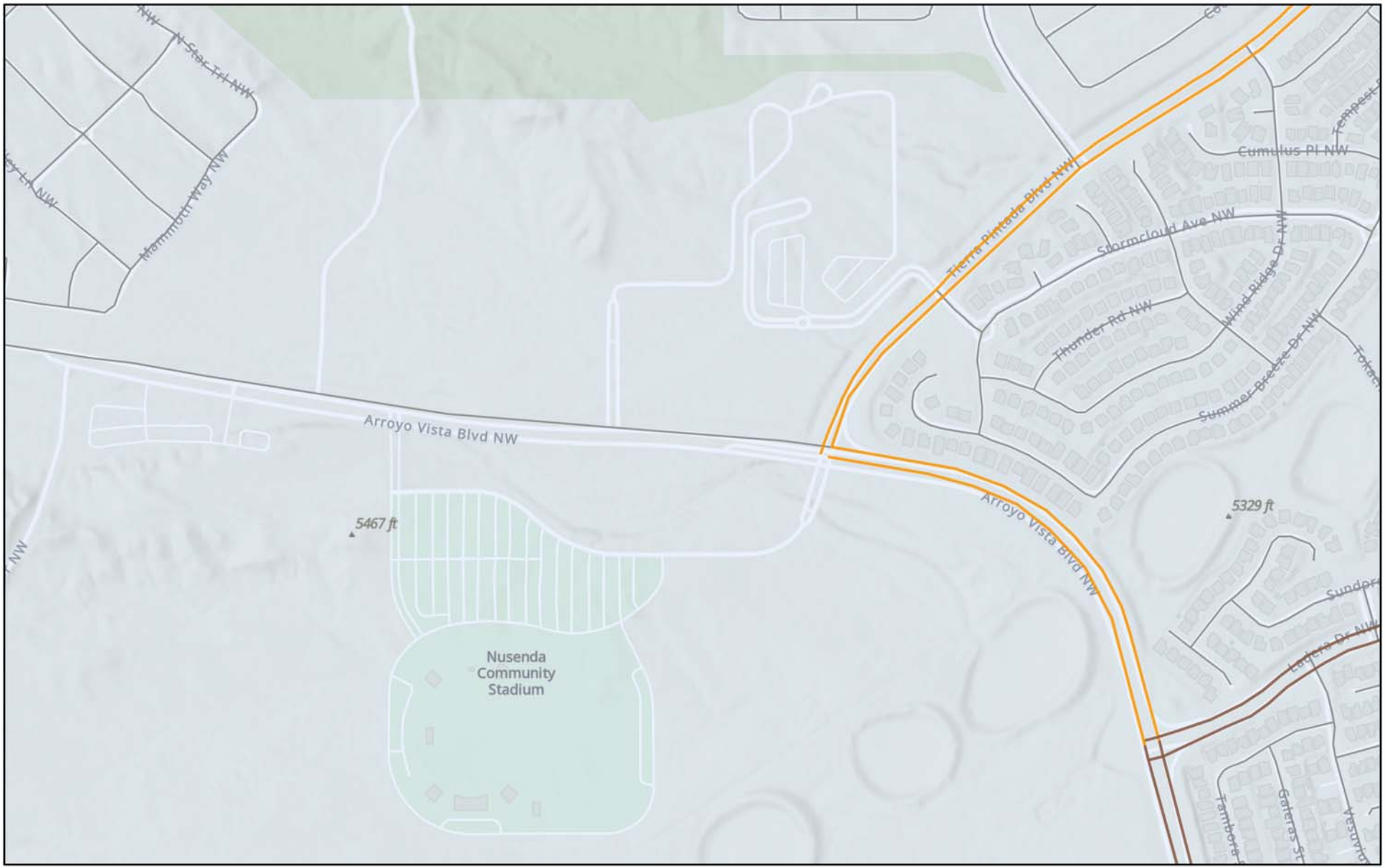
	Eastbound ARROYO VISTA			Westbound ARROYO VISTA			Northbound COMMUNITY STADIUM ACCESS			Southbound ACCESS 2		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)		138	0	3	72		0		3			
Background Growth	0	6	0	0	3	0	0	0	0	0	0	0
2028 No Build	0	144	0	3	75	0	0	0	3	0	0	0
Entering					13	24						
Exiting		40								73		
2028 Build	0	183	0	3	88	24	0	0	3	73	0	0
Horizon Year Growth	0	19	0	0	10	0	0	0	0	0	0	0
2038 Horizon No Build	0	157	0	3	82	0	0	0	3	0	0	0
2038 Horizon Build	0	197	0	3	95	24	0	0	3	73	0	0
PHF	*0.83*			*0.83*			*0.83*			*0.83*		
HV %		*0*			*1*			*0*			*1*	

PM Peak Hour

	Eastbound ARROYO VISTA			Westbound ARROYO VISTA			Northbound COMMUNITY STADIUM ACCESS			Southbound ACCESS 2		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes (2024)		77	1	0	130		0		1			
Background Growth	0	5	0	0	8	0	0	0	0	0	0	0
2028 No Build	0	82	1	0	138	0	0	0	1	0	0	0
Entering					45	83						
Exiting		26								49		
2028 Build	0	108	1	0	183	83	0	0	1	49	0	0
Horizon Year Growth	0	11	0	0	18	0	0	0	0	0	0	0
2038 Horizon No Build	0	88	1	0	148	0	0	0	1	0	0	0
2038 Horizon Build	0	114	1	0	193	83	0	0	1	49	0	0
PHF	*0.77*			*0.77*			*0.77*			*0.77*		
HV %		*0*			*0*			*0*			*0*	

growth rates	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Trip Distribution % Enter					35.0%	65.0%						
Trip Distribution % Exit	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	0.0%	0.0%

APS Roadway Functional Class



1/3/2025, 12:03:18 PM

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, New Mexico State University, Bernalillo County, NM, © OpenStreetMap, Microsoft,

NMDOT Functional Class

- 4 - Minor Arterial
- 5 - Major Collector
- Local Roads
- 2020 FHWA Urban Area Boundaries

APPENDIX D:
2028 NO BUILD INTERSECTION CAPACITY ANALYSIS

HCS Two-Way Stop-Control Report

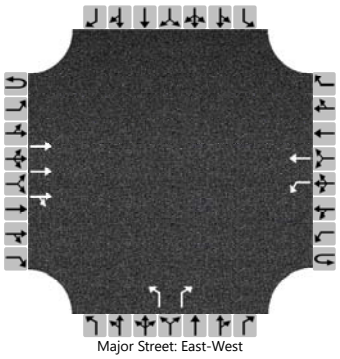
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/19/2024
Analysis Year	2028
Time Analyzed	NBAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			144	0	0	3	75			0		3				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4				0		4				
Capacity, c (veh/h)						965				678		815				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)						0.0						0.0				
Control Delay (s/veh)						8.7				10.3		9.4				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.3				9.4							
Approach LOS					A				A							

HCS Two-Way Stop-Control Report

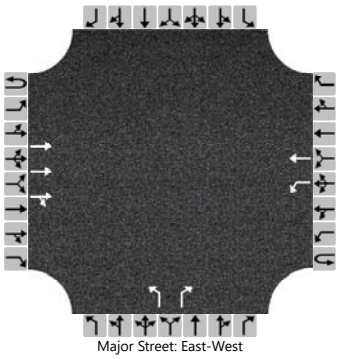
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/19/2024
Analysis Year	2028
Time Analyzed	NBPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.77
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			82	1	0	0	138			0		1				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage						Left Only						1				

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						0				0		1				
Capacity, c (veh/h)						1034				687		854				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)												0.0				
Control Delay (s/veh)						8.5				10.2		9.2				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)						0.0				9.2						
Approach LOS						A				A						

HCS Two-Way Stop-Control Report

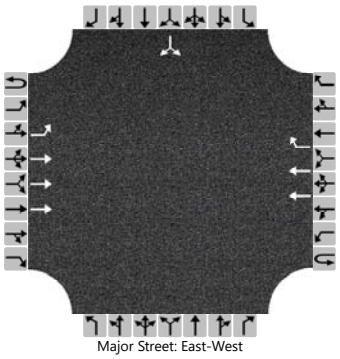
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/19/2024
Analysis Year	2028
Time Analyzed	NBAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.71
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	144				77	11						11		1
Percent Heavy Vehicles (%)	1	1												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.12												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.21												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													17	
Capacity, c (veh/h)		1468													755	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.5													9.9	
Level of Service (LOS)		A													A	
Approach Delay (s/veh)		0.1												9.9		
Approach LOS		A												A		

HCS Two-Way Stop-Control Report

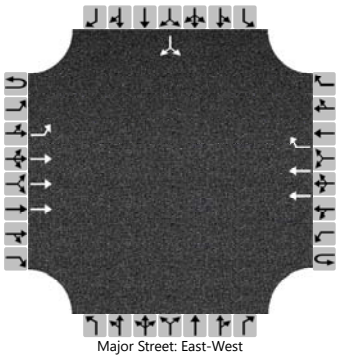
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/19/2024
Analysis Year	2028
Time Analyzed	NBPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.79
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	95				106	9						12		0
Percent Heavy Vehicles (%)	0	0												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.10												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.20												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													15	
Capacity, c (veh/h)		1449													736	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.5													10.0	
Level of Service (LOS)		A													A	
Approach Delay (s/veh)		0.2												10.0		
Approach LOS		A												A		

HCS Two-Way Stop-Control Report

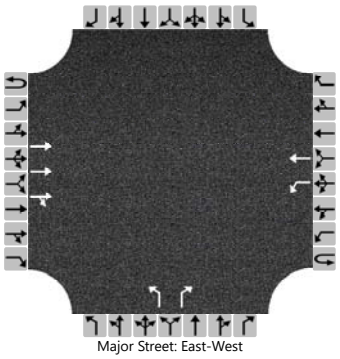
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/19/2024
Analysis Year	2028
Time Analyzed	NBAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.80
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			162	0	0	0	60			0		0				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						0				0		0				
Capacity, c (veh/h)						935				660		798				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)												0.0				
Control Delay (s/veh)						8.8				10.5		9.5				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.0											
Approach LOS					A											

HCS Two-Way Stop-Control Report

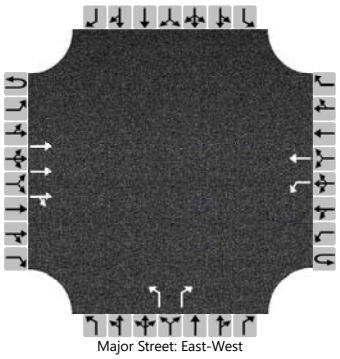
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/19/2024
Analysis Year	2028
Time Analyzed	NBPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			85	1	0	1	129			0		1				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

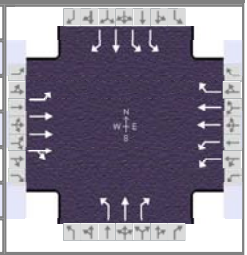
Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1				0		1				
Capacity, c (veh/h)						1038				700		857				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)						0.0						0.0				
Control Delay (s/veh)						8.5				10.1		9.2				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.1				9.2							
Approach LOS					A				A							

HCS Signalized Intersection Results Summary

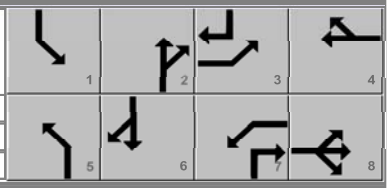
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 19, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	NBAM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2028	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2028 NBAM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	57	107	0	1	42	215	0	2	2	348	3	36

Signal Information			
Cycle, s	47.2	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.1	6.9	0.0	1.6	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



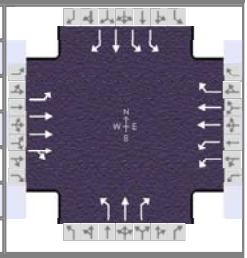
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	5.7	19.1	4.0	17.5	0.0	12.9	11.1	24.0
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.3	3.1	3.3
Queue Clearance Time (g_s), s	3.1	2.6	2.0	7.4		2.1	6.4	2.6
Green Extension Time (g_e), s	0.1	0.6	0.0	0.4	0.0	0.0	0.8	0.0
Phase Call Probability	0.53	1.00	0.01	1.00		0.43	0.99	0.99
Max Out Probability	0.00	0.01	0.00	0.37		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	57	107	0	1	42	215	0	2	2	348	3	36
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	1.1	0.6	0.0	0.0	0.4	5.4	0.0	0.0	0.1	4.4	0.0	0.6
Cycle Queue Clearance Time (g_c), s	1.1	0.6	0.0	0.0	0.4	5.4	0.0	0.0	0.1	4.4	0.0	0.6
Green Ratio (*g/C*)	0.29	0.29		0.00	0.25	0.25		0.15	0.15	0.15	0.38	0.42
Capacity (*c*), veh/h	557	1646		7	920	410	4	278	237	529	725	672
Volume-to-Capacity Ratio (*X*)	0.102	0.065	0.000	0.134	0.046	0.525	0.000	0.007	0.008	0.658	0.004	0.054
Back of Queue (*Q*), ft/ln (95 th percentile)	17	11	0	0	7	99	0	1	1	71	1	8
Back of Queue (*Q*), veh/ln (95 th percentile)	0.7	0.4	0.0	0.0	0.3	4.0	0.0	0.0	0.0	2.9	0.0	0.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	12.3	12.2		23.5	13.3	15.1	0.0	17.2	17.2	18.9	9.0	8.2
Incremental Delay (d_2), s/veh	0.0	0.1	0.0	3.0	0.1	4.8	0.0	0.0	0.0	0.5	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	12.3	12.2		26.5	13.4	20.0	0.0	17.2	17.2	19.4	9.0	8.2
Level of Service (LOS)	B	B		C	B	B		B	B	B	A	A
Approach Delay, s/veh / LOS	12.3	B		18.9	B		17.2	B		18.3	B	
Intersection Delay, s/veh / LOS	17.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.26	B	2.26	B	2.70	C	2.40	B
Bicycle LOS Score / LOS	0.58	A	0.70	A	0.49	A	1.13	A

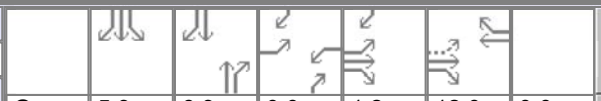
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 19, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	NBPM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2028	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2028 NBPM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				

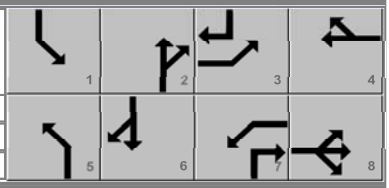


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	43	50	0	1	67	211	0	1	0	251	2	37

Signal Information			
Cycle, s	44.3	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	5.3	6.3	0.0	1.2	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



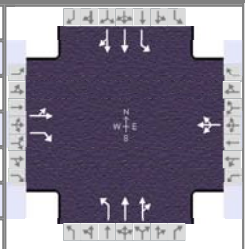
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	5.2	18.7	4.0	17.5	0.0	12.3	9.3	21.6
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.3	3.1	3.3
Queue Clearance Time (g_s), s	2.8	2.3	2.0	6.9		2.0	5.0	2.6
Green Extension Time (g_e), s	0.0	0.5	0.0	0.4	0.0	0.0	0.5	0.0
Phase Call Probability	0.41	1.00	0.01	1.00		0.39	0.95	0.97
Max Out Probability	0.00	0.01	0.00	0.23		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	43	50	0	1	67	211	0	1	0	251	2	37
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	0.8	0.3	0.0	0.0	0.6	4.9	0.0	0.0	0.0	3.0	0.0	0.6
Cycle Queue Clearance Time (g_c), s	0.8	0.3	0.0	0.0	0.6	4.9	0.0	0.0	0.0	3.0	0.0	0.6
Green Ratio (*g/C*)	0.30	0.30		0.00	0.27	0.27		0.14	0.14	0.12	0.35	0.38
Capacity (*c*), veh/h	561	1698		8	980	436	4	269	230	420	668	611
Volume-to-Capacity Ratio (*X*)	0.077	0.029	0.000	0.126	0.068	0.484	0.000	0.004	0.000	0.598	0.003	0.061
Back of Queue (*Q*), ft/ln (95 th percentile)	11	4	0	0	10	85	0	0	0	48	0	8
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	0.2	0.0	0.0	0.4	3.4	0.0	0.0	0.0	1.9	0.0	0.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	11.2	11.0		22.1	12.0	13.6	0.0	16.3	0.0	18.5	9.3	8.7
Incremental Delay (d_2), s/veh	0.0	0.0	0.0	2.6	0.1	3.9	0.0	0.0	0.0	0.5	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	11.2	11.0		24.7	12.1	17.4	0.0	16.3	0.0	19.0	9.3	8.8
Level of Service (LOS)	B	B		C	B	B		B		B	A	A
Approach Delay, s/veh / LOS	11.1	B		16.2	B		16.3	B		17.6	B	
Intersection Delay, s/veh / LOS	16.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.25	B	2.26	B	2.69	C	2.40	B
Bicycle LOS Score / LOS	0.54	A	0.72	A	0.49	A	0.97	A

HCS Signalized Intersection Results Summary

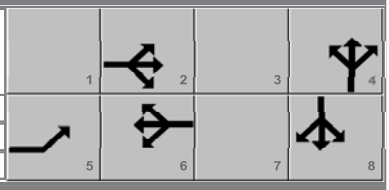
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 19, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	NBAM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2028	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2028 NBAM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	96	30	197	66	73	24	168	96	22	11	125	163

Signal Information			
Cycle, s	47.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	22.0	13.6	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	2.0	2.0	0.0	0.0	0.0	0.0	



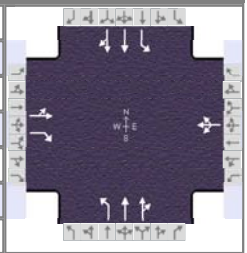
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		19.6		19.6
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.4		3.4
Queue Clearance Time (*g s*), s		5.6		4.5		12.6		5.8
Green Extension Time (*g e*), s	0.0	0.9		0.9		0.9		1.2
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.14		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		126	197		163		168	59	59	11	125	163
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1438	1610		1654		1108	1900	1780	1294	1900	1610
Queue Service Time (*g s*), s		1.9	3.6		0.0		6.8	1.1	1.2	0.3	2.4	3.8
Cycle Queue Clearance Time (*g c*), s		1.9	3.6		2.5		10.6	1.1	1.2	1.5	2.4	3.8
Green Ratio (*g/C*)		0.46	0.46		0.46		0.29	0.29	0.29	0.29	0.29	0.29
Capacity (*c*), veh/h		798	745		871		377	542	508	488	542	460
Volume-to-Capacity Ratio (*X*)		0.158	0.265		0.187		0.445	0.110	0.115	0.023	0.231	0.355
Back of Queue (*Q*), ft/ln (95 th percentile)		28	48		37		67	18	18	3	39	53
Back of Queue (*Q*), veh/ln (95 th percentile)		1.1	1.9		1.5		2.7	0.7	0.7	0.1	1.6	2.1
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		7.4	7.8		7.5		17.8	12.5	12.6	13.1	13.0	13.5
Incremental Delay (*d 2*), s/veh		0.4	0.9		0.5		0.3	0.0	0.0	0.0	0.1	0.2
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		7.9	8.7		8.0		18.1	12.6	12.6	13.1	13.1	13.7
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	8.4	A		8.0	A		15.8	B		13.4	B	
Intersection Delay, s/veh / LOS	11.7						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.23	B	2.23	B	1.67	B	1.90	B
Bicycle LOS Score / LOS	1.02	A	0.76	A	0.72	A	0.73	A

HCS Signalized Intersection Results Summary

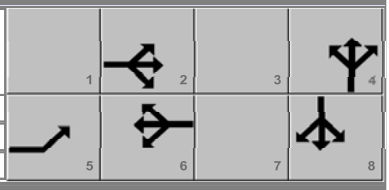
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 19, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	NBPM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2028	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2028 NBPM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	71	20	146	36	16	13	90	120	60	14	108	68

Signal Information			
Cycle, s	42.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	22.0	8.0	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	2.0	2.0	0.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		14.0		14.0
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.2		3.2
Queue Clearance Time (*g s*), s		4.0		2.7		6.7		4.3
Green Extension Time (*g e*), s	0.0	0.5		0.6		0.8		0.8
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		91	146		65		90	92	88	14	90	86
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1500	1610		1570		1228	1900	1693	1223	1900	1663
Queue Service Time (*g s*), s		1.0	2.0		0.0		2.8	1.7	1.9	0.4	1.7	1.9
Cycle Queue Clearance Time (*g c*), s		1.0	2.0		0.7		4.7	1.7	1.9	2.3	1.7	1.9
Green Ratio (*g/C*)		0.52	0.52		0.52		0.19	0.19	0.19	0.19	0.19	0.19
Capacity (*c*), veh/h		939	844		957		350	361	321	349	361	316
Volume-to-Capacity Ratio (*X*)		0.097	0.173		0.068		0.257	0.255	0.275	0.040	0.250	0.272
Back of Queue (*Q*), ft/ln (95 th percentile)		13	22		9		30	28	27	4	28	27
Back of Queue (*Q*), veh/ln (95 th percentile)		0.5	0.9		0.4		1.2	1.1	1.1	0.2	1.1	1.1
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		5.0	5.2		4.9		16.5	14.5	14.5	15.5	14.5	14.5
Incremental Delay (*d 2*), s/veh		0.2	0.4		0.1		0.1	0.1	0.2	0.0	0.1	0.2
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		5.2	5.7		5.1		16.7	14.6	14.7	15.5	14.6	14.7
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	5.5	A		5.1	A		15.3	B		14.7	B	
Intersection Delay, s/veh / LOS	11.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.22	B	2.22	B	1.68	B	1.90	B
Bicycle LOS Score / LOS	0.88	A	0.59	A	0.71	A	0.64	A

APPENDIX E:
2028 BUILD INTERSECTION CAPACITY ANALYSIS

HCS Two-Way Stop-Control Report

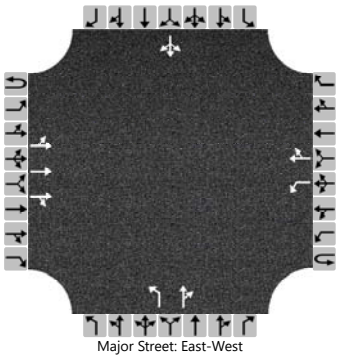
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	1/8/2025
Analysis Year	2028
Time Analyzed	BAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	1	0		0	1	0
Configuration		LT	T	TR		L		TR		L		TR			LTR	
Volume (veh/h)		0	183	0	0	3	88	24		0	0	3		73	0	0
Percent Heavy Vehicles (%)		0			1	1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				5.3				6.4	6.5	7.1		6.4	6.5	6.2
Critical Headway (sec)		4.10				5.32				6.40	6.50	7.10		6.40	6.50	6.20
Base Follow-Up Headway (sec)		2.2				3.1				3.8	4.0	3.9		3.8	4.0	3.3
Follow-Up Headway (sec)		2.20				3.11				3.80	4.00	3.90		3.80	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				4				0		4			88	
Capacity, c (veh/h)		1462				918				603		788			702	
v/c Ratio		0.00				0.00				0.00		0.00			0.13	
95% Queue Length, Q_{95} (veh)		0.0				0.0				0.0		0.0			0.4	
95% Queue Length, Q_{95} (ft)						0.0						0.0			10.0	
Control Delay (s/veh)		7.5	0.0			8.9				11.0		9.6			10.9	
Level of Service (LOS)		A	A			A				B		A			B	
Approach Delay (s/veh)	0.0				0.2				9.6				10.9			
Approach LOS	A				A				A				B			

HCS Two-Way Stop-Control Report

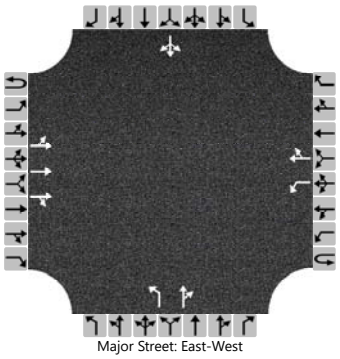
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	1/8/2025
Analysis Year	2028
Time Analyzed	BPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.77
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	1	0		0	1	0
Configuration		LT	T	TR		L		TR		L		TR			LTR	
Volume (veh/h)		0	108	1	0	0	183	83		0	0	1		49	0	0
Percent Heavy Vehicles (%)		0			1	1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				5.3				6.4	6.5	7.1		6.4	6.5	6.2
Critical Headway (sec)		4.10				5.32				6.40	6.50	7.10		6.40	6.50	6.20
Base Follow-Up Headway (sec)		2.2				3.1				3.8	4.0	3.9		3.8	4.0	3.3
Follow-Up Headway (sec)		2.20				3.11				3.80	4.00	3.90		3.80	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				0				0		1			64	
Capacity, c (veh/h)		1225				998				572		834			602	
v/c Ratio		0.00				0.00				0.00		0.00			0.11	
95% Queue Length, Q_{95} (veh)		0.0				0.0				0.0		0.0			0.4	
95% Queue Length, Q_{95} (ft)												0.0			10.0	
Control Delay (s/veh)		7.9	0.0			8.6				11.3		9.3			11.7	
Level of Service (LOS)		A	A			A				B		A			B	
Approach Delay (s/veh)	0.0				0.0				9.3				11.7			
Approach LOS	A				A				A				B			

HCS Two-Way Stop-Control Report

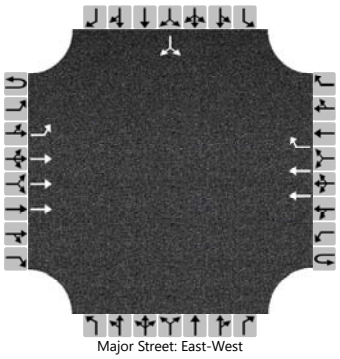
General Information

Analyst	AG
Agency/Co.	CE 582
Date Performed	1/8/2025
Analysis Year	2028
Time Analyzed	BAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.71
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	257				114	11						11		1
Percent Heavy Vehicles (%)	1	1												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.12												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.21												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													17	
Capacity, c (veh/h)		1405													690	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.6													10.3	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		0.1												10.3		
Approach LOS		A												B		

HCS Two-Way Stop-Control Report

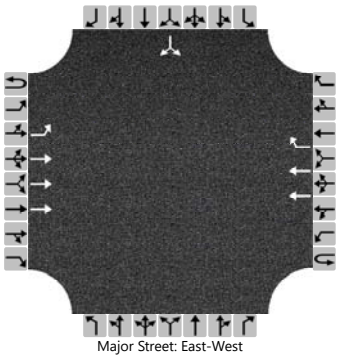
General Information

Analyst	AG
Agency/Co.	CE 582
Date Performed	1/8/2025
Analysis Year	2028
Time Analyzed	BPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.79
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	170				234	10						12		0
Percent Heavy Vehicles (%)	0	0												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.10												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.20												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													15	
Capacity, c (veh/h)		1263													613	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.9													11.0	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		0.1												11.0		
Approach LOS		A												B		

HCS Two-Way Stop-Control Report

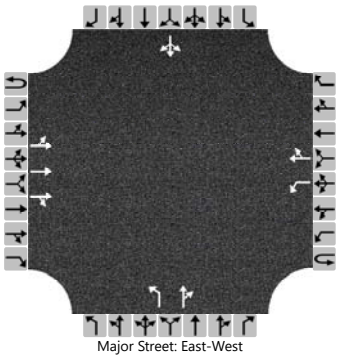
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	1/8/2025
Analysis Year	2028
Time Analyzed	BAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.80
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	1	0		0	1	0
Configuration		LT	T	TR		L		TR		L		TR			LTR	
Volume (veh/h)		0	162	0	0	0	60	13		0	0	0		40	0	0
Percent Heavy Vehicles (%)		0			1	1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				5.3				6.4	6.5	7.1		6.4	6.5	6.2
Critical Headway (sec)		4.10				5.32				6.40	6.50	7.10		6.40	6.50	6.20
Base Follow-Up Headway (sec)		2.2				3.1				3.8	4.0	3.9		3.8	4.0	3.3
Follow-Up Headway (sec)		2.20				3.11				3.80	4.00	3.90		3.80	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				0				0		0			50	
Capacity, c (veh/h)		1516				935				632		0			742	
v/c Ratio		0.00				0.00				0.00					0.07	
95% Queue Length, Q_{95} (veh)		0.0				0.0				0.0					0.2	
95% Queue Length, Q_{95} (ft)															5.0	
Control Delay (s/veh)		7.4	0.0			8.8				10.7					10.2	
Level of Service (LOS)		A	A			A				B					B	
Approach Delay (s/veh)	0.0				0.0								10.2			
Approach LOS	A				A								B			

HCS Two-Way Stop-Control Report

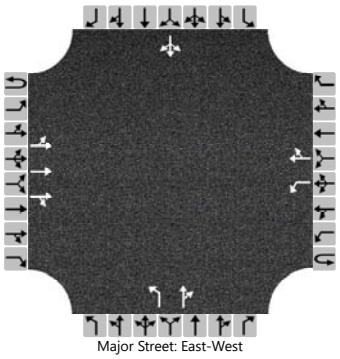
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	1/8/2025
Analysis Year	2028
Time Analyzed	BPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	1	0		0	1	0
Configuration		LT	T	TR		L		TR		L		TR			LTR	
Volume (veh/h)		0	85	1	0	1	129	45		0	0	1		26	0	0
Percent Heavy Vehicles (%)		3			1	1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

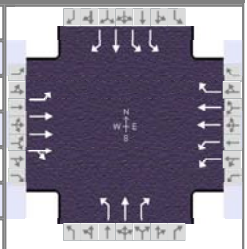
Base Critical Headway (sec)		4.1				5.3				6.4	6.5	7.1		6.4	6.5	6.2
Critical Headway (sec)		4.16				5.32				6.40	6.50	7.10		6.40	6.50	6.20
Base Follow-Up Headway (sec)		2.2				3.1				3.8	4.0	3.9		3.8	4.0	3.3
Follow-Up Headway (sec)		2.23				3.11				3.80	4.00	3.90		3.80	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				1				0		1			31	
Capacity, c (veh/h)		1351				1038				657		857			685	
v/c Ratio		0.00				0.00				0.00		0.00			0.05	
95% Queue Length, Q_{95} (veh)		0.0				0.0				0.0		0.0			0.1	
95% Queue Length, Q_{95} (ft)						0.0						0.0			2.5	
Control Delay (s/veh)		7.7	0.0			8.5				10.5		9.2			10.5	
Level of Service (LOS)		A	A			A				B		A			B	
Approach Delay (s/veh)	0.0				0.0				9.2				10.5			
Approach LOS	A				A				A				B			

HCS Signalized Intersection Results Summary

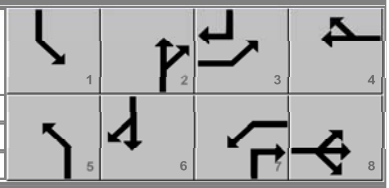
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Feb 13, 2025	Area Type	Other
Jurisdiction	CoA	Time Period	BAM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2028	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2028 BAM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	104	174	0	1	63	215	0	2	2	348	3	52

Signal Information			
Cycle, s	51.4	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.5	9.0	0.0	3.3	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



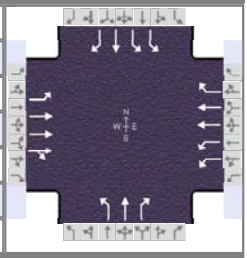
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	7.3	20.8	4.0	17.5	0.0	15.0	11.5	26.6
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.3	3.1	3.3
Queue Clearance Time (g_s), s	4.1	3.1	2.0	8.1		2.1	6.8	2.9
Green Extension Time (g_e), s	0.1	0.8	0.0	0.5	0.0	0.0	0.8	0.1
Phase Call Probability	0.77	1.00	0.01	1.00		0.57	0.99	1.00
Max Out Probability	0.00	0.02	0.00	0.61		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	104	174	0	1	63	215	0	2	2	348	3	52
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	2.1	1.1	0.0	0.0	0.7	6.1	0.0	0.0	0.1	4.8	0.0	0.9
Cycle Queue Clearance Time (g_c), s	2.1	1.1	0.0	0.0	0.7	6.1	0.0	0.0	0.1	4.8	0.0	0.9
Green Ratio (*g/C*)	0.32	0.30		0.00	0.23	0.23		0.18	0.18	0.15	0.40	0.46
Capacity (*c*), veh/h	555	1692		7	845	376	4	335	285	516	761	749
Volume-to-Capacity Ratio (*X*)	0.187	0.103	0.000	0.146	0.075	0.572	0.000	0.006	0.007	0.675	0.004	0.069
Back of Queue (*Q*), ft/ln (95 th percentile)	33	20	0	0	12	117	0	1	1	81	1	11
Back of Queue (*Q*), veh/ln (95 th percentile)	1.3	0.8	0.0	0.0	0.5	4.7	0.0	0.0	0.0	3.2	0.0	0.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	12.6	13.1		25.6	15.4	17.4	0.0	17.5	17.4	20.8	9.2	7.6
Incremental Delay (d_2), s/veh	0.1	0.1	0.0	3.6	0.2	6.3	0.0	0.0	0.0	0.6	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	12.6	13.2		29.2	15.5	23.8	0.0	17.5	17.4	21.4	9.2	7.6
Level of Service (LOS)	B	B		C	B	C		B	B	C	A	A
Approach Delay, s/veh / LOS	13.0	B		21.9	C		17.4	B		19.5	B	
Intersection Delay, s/veh / LOS	18.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.26	B	2.27	B	2.70	C	2.40	B
Bicycle LOS Score / LOS	0.64	A	0.72	A	0.49	A	1.15	A

HCS Signalized Intersection Results Summary

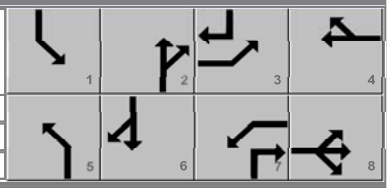
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Feb 13, 2025	Area Type	Other
Jurisdiction	CoA	Time Period	BPM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2028	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2028 BPM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	74	94	0	1	142	211	0	1	0	251	2	90

Signal Information			
Cycle, s	51.4	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.9	11.6	0.0	2.3	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



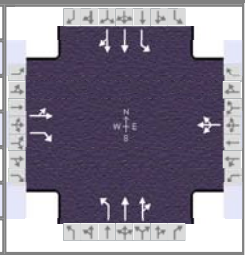
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	6.4	19.8	4.0	17.5	0.0	17.6	9.9	27.5
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.4	3.1	3.4
Queue Clearance Time (g_s), s	3.6	2.6	2.0	7.9		2.0	5.5	3.6
Green Extension Time (g_e), s	0.1	0.8	0.0	0.5	0.0	0.0	0.5	0.1
Phase Call Probability	0.65	1.00	0.01	1.00		0.73	0.97	0.99
Max Out Probability	0.00	0.02	0.00	0.55		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	74	94	0	1	142	211	0	1	0	251	2	90
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	1.6	0.6	0.0	0.0	1.6	5.9	0.0	0.0	0.0	3.5	0.0	1.6
Cycle Queue Clearance Time (g_c), s	1.6	0.6	0.0	0.0	1.6	5.9	0.0	0.0	0.0	3.5	0.0	1.6
Green Ratio (*g/C*)	0.29	0.28		0.00	0.23	0.23		0.23	0.23	0.11	0.42	0.46
Capacity (*c*), veh/h	480	1591		7	845	376	4	430	366	402	795	748
Volume-to-Capacity Ratio (*X*)	0.154	0.059	0.000	0.146	0.168	0.561	0.000	0.002	0.000	0.625	0.003	0.120
Back of Queue (*Q*), ft/ln (95 th percentile)	25	11	0	0	28	114	0	0	0	60	0	20
Back of Queue (*Q*), veh/ln (95 th percentile)	1.0	0.4	0.0	0.0	1.1	4.6	0.0	0.0	0.0	2.4	0.0	0.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	13.7	13.6		25.6	15.7	17.4	0.0	15.4	0.0	21.7	8.7	7.8
Incremental Delay (d_2), s/veh	0.1	0.1	0.0	3.6	0.4	6.1	0.0	0.0	0.0	0.6	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	13.7	13.6		29.2	16.1	23.4	0.0	15.4	0.0	22.3	8.7	7.8
Level of Service (LOS)	B	B		C	B	C		B		C	A	A
Approach Delay, s/veh / LOS	13.7	B		20.5	C		15.4	B		18.4	B	
Intersection Delay, s/veh / LOS	18.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.26	B	2.27	B	2.69	C	2.40	B
Bicycle LOS Score / LOS	0.58	A	0.78	A	0.49	A	1.05	A

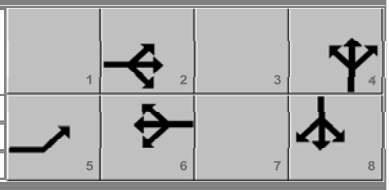
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Feb 13, 2025	Area Type	Other
Jurisdiction	CoA	Time Period	BAM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2028	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2028 BAM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	96	30	204	66	73	24	190	119	22	11	133	163

Signal Information												
Cycle, s	48.7	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	22.0	14.7	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0		
				Red	2.0	2.0	0.0	0.0	0.0	0.0		



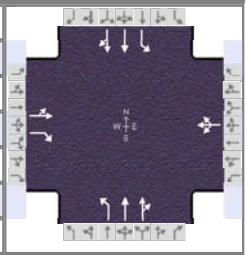
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		20.7		20.7
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.4		3.4
Queue Clearance Time (*g s*), s		5.9		4.6		13.8		5.8
Green Extension Time (*g e*), s	0.0	0.9		0.9		0.9		1.3
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.27		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		126	204		163		190	71	70	11	133	163
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1438	1610		1654		1100	1900	1798	1267	1900	1610
Queue Service Time (*g s*), s		2.0	3.9		0.0		7.9	1.3	1.4	0.3	2.6	3.8
Cycle Queue Clearance Time (*g c*), s		2.0	3.9		2.6		11.8	1.3	1.4	1.7	2.6	3.8
Green Ratio (*g/C*)		0.45	0.45		0.45		0.30	0.30	0.30	0.30	0.30	0.30
Capacity (*c*), veh/h		780	727		850		393	574	543	494	574	487
Volume-to-Capacity Ratio (*X*)		0.162	0.281		0.192		0.484	0.124	0.129	0.022	0.232	0.335
Back of Queue (*Q*), ft/ln (95 th percentile)		30	54		40		78	21	21	3	41	53
Back of Queue (*Q*), veh/ln (95 th percentile)		1.2	2.2		1.6		3.1	0.9	0.8	0.1	1.7	2.1
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		7.9	8.4		8.0		17.8	12.3	12.3	13.0	12.8	13.2
Incremental Delay (*d 2*), s/veh		0.4	1.0		0.5		0.3	0.0	0.0	0.0	0.1	0.1
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		8.4	9.4		8.5		18.1	12.4	12.4	13.0	12.8	13.3
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	9.0	A		8.5	A		15.7	B		13.1	B	
Intersection Delay, s/veh / LOS	12.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.24	B	2.24	B	1.67	B	1.90	B
Bicycle LOS Score / LOS	1.03	A	0.76	A	0.76	A	0.74	A

HCS Signalized Intersection Results Summary

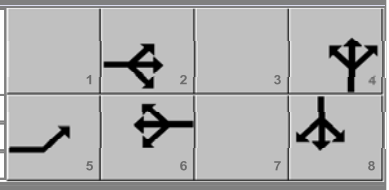
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Feb 13, 2025	Area Type	Other
Jurisdiction	CoA	Time Period	BPM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2028	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2028 BPM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	71	20	171	36	16	13	104	136	60	14	135	68

Signal Information			
Cycle, s	42.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	22.0	8.5	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	2.0	2.0	0.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		14.5		14.5
Change Period, ($Y+R_c$), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.2		3.2
Queue Clearance Time (g_s), s		4.4		2.8		7.6		4.5
Green Extension Time (g_e), s	0.0	0.6		0.6		0.9		0.9
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.01		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		91	171		65		104	100	96	14	104	99
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1500	1610		1570		1198	1900	1708	1206	1900	1691
Queue Service Time (g_s), s		1.1	2.4		0.0		3.4	1.9	2.0	0.4	2.0	2.1
Cycle Queue Clearance Time (g_c), s		1.1	2.4		0.8		5.6	1.9	2.0	2.5	2.0	2.1
Green Ratio (*g/C*)		0.52	0.52		0.52		0.20	0.20	0.20	0.20	0.20	0.20
Capacity (*c*), veh/h		928	834		945		348	379	341	352	379	337
Volume-to-Capacity Ratio (*X*)		0.098	0.205		0.069		0.299	0.264	0.282	0.040	0.274	0.294
Back of Queue (*Q*), ft/ln (95 th percentile)		13	28		10		36	31	30	4	32	31
Back of Queue (*Q*), veh/ln (95 th percentile)		0.5	1.1		0.4		1.5	1.2	1.2	0.2	1.3	1.2
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh		5.2	5.5		5.1		16.8	14.4	14.4	15.5	14.4	14.5
Incremental Delay (d_2), s/veh		0.2	0.6		0.1		0.2	0.1	0.2	0.0	0.1	0.2
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		5.4	6.1		5.3		17.0	14.5	14.6	15.5	14.5	14.6
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	5.8	A		5.3	A		15.4	B		14.6	B	
Intersection Delay, s/veh / LOS	11.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.22	B	2.22	B	1.68	B	1.90	B
Bicycle LOS Score / LOS	0.92	A	0.59	A	0.74	A	0.67	A

APPENDIX F:
2038 NO BUILD INTERSECTION CAPACITY ANALYSIS

HCS Two-Way Stop-Control Report

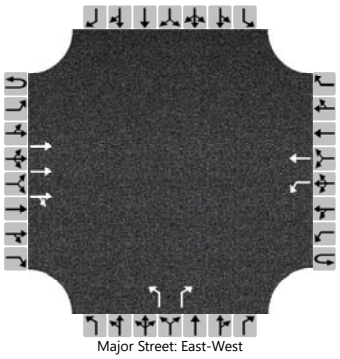
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/20/2024
Analysis Year	2038
Time Analyzed	NBAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			157	0	0	3	82			0		3				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4				0		4				
Capacity, c (veh/h)						949				663		806				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)						0.0						0.0				
Control Delay (s/veh)						8.8				10.4		9.5				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.3				9.5							
Approach LOS					A				A							

HCS Two-Way Stop-Control Report

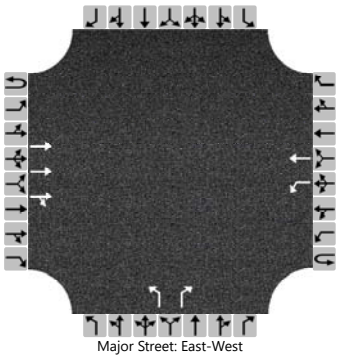
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/20/2024
Analysis Year	2038
Time Analyzed	NBPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.77
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			88	1	0	0	148			0		1				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized									No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						0				0		1				
Capacity, c (veh/h)						1025				675		850				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)												0.0				
Control Delay (s/veh)						8.5				10.3		9.2				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.0				9.2							
Approach LOS					A				A							

HCS Two-Way Stop-Control Report

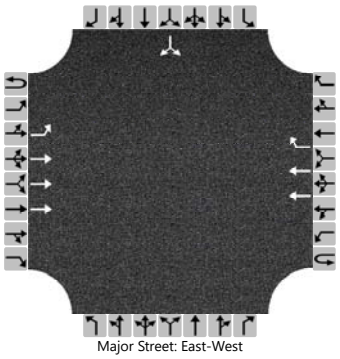
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/20/2024
Analysis Year	2038
Time Analyzed	NBAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.71
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	157				84	13						13		1
Percent Heavy Vehicles (%)	1	1												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.12												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.21												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													20	
Capacity, c (veh/h)		1452													742	
v/c Ratio		0.00													0.03	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.5													10.0	
Level of Service (LOS)		A													A	
Approach Delay (s/veh)		0.1												10.0		
Approach LOS		A												A		

HCS Two-Way Stop-Control Report

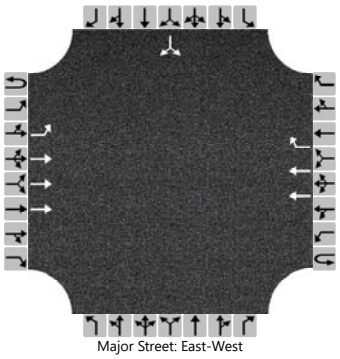
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/20/2024
Analysis Year	2038
Time Analyzed	NBPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.79
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	103				114	10						13		0
Percent Heavy Vehicles (%)	0	0												0		0
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.10												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.20												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													16	
Capacity, c (veh/h)		1435													727	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.5													10.1	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		0.1												10.1		
Approach LOS		A												B		

HCS Two-Way Stop-Control Report

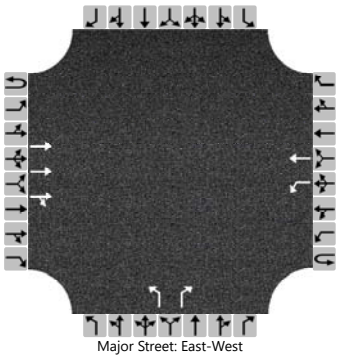
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/20/2024
Analysis Year	2038
Time Analyzed	NBAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.80
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			178	0	0	0	66			0		0				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						0				0		0				
Capacity, c (veh/h)						916				643		787				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)												0.0				
Control Delay (s/veh)						8.9				10.6		9.6				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.0											
Approach LOS					A											

HCS Two-Way Stop-Control Report

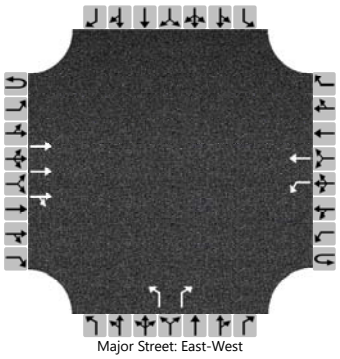
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	12/20/2024
Analysis Year	2038
Time Analyzed	NBPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			91	1	0	1	139			0		1				
Percent Heavy Vehicles (%)					1	1				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

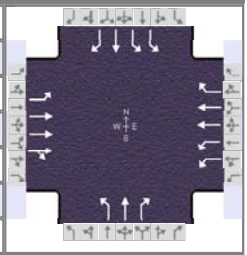
Base Critical Headway (sec)						5.3				6.4		7.1				
Critical Headway (sec)						5.32				5.70		7.10				
Base Follow-Up Headway (sec)						3.1				3.8		3.9				
Follow-Up Headway (sec)						3.11				3.80		3.90				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1				0		1				
Capacity, c (veh/h)						1030				690		853				
v/c Ratio						0.00				0.00		0.00				
95% Queue Length, Q_{95} (veh)						0.0				0.0		0.0				
95% Queue Length, Q_{95} (ft)						0.0						0.0				
Control Delay (s/veh)						8.5				10.2		9.2				
Level of Service (LOS)						A				B		A				
Approach Delay (s/veh)					0.1				9.2							
Approach LOS					A				A							

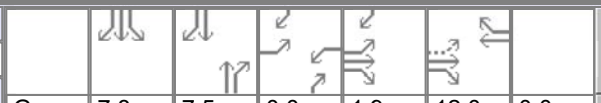
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 20, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	NBAM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2038	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2038 NBAM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				

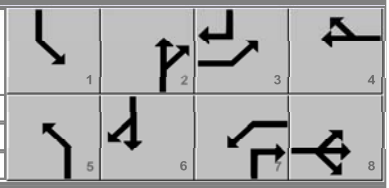


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	63	117	0	1	46	236	0	2	2	382	3	40

Signal Information			
Cycle, s	48.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	7.8	7.5	0.0	1.9	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



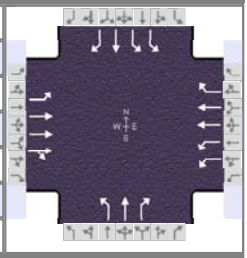
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	5.9	19.4	4.0	17.5	0.0	13.5	11.8	25.3
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.3	3.1	3.3
Queue Clearance Time (g_s), s	3.3	2.7	2.0	8.3		2.1	7.0	2.7
Green Extension Time (g_e), s	0.1	0.7	0.0	0.4	0.0	0.0	0.8	0.1
Phase Call Probability	0.57	1.00	0.01	1.00		0.47	0.99	1.00
Max Out Probability	0.00	0.01	0.00	0.73		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	63	117	0	1	46	236	0	2	2	382	3	40
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	1.3	0.7	0.0	0.0	0.5	6.3	0.0	0.0	0.1	5.0	0.0	0.7
Cycle Queue Clearance Time (g_c), s	1.3	0.7	0.0	0.0	0.5	6.3	0.0	0.0	0.1	5.0	0.0	0.7
Green Ratio (*g/C*)	0.29	0.28		0.00	0.25	0.25		0.15	0.16	0.16	0.40	0.44
Capacity (*c*), veh/h	545	1621		7	890	396	4	294	251	563	754	702
Volume-to-Capacity Ratio (*X*)	0.116	0.072	0.000	0.139	0.052	0.596	0.000	0.007	0.008	0.679	0.004	0.057
Back of Queue (*Q*), ft/ln (95 th percentile)	20	12	0	0	8	121	0	1	1	82	1	8
Back of Queue (*Q*), veh/ln (95 th percentile)	0.8	0.5	0.0	0.0	0.3	4.8	0.0	0.0	0.0	3.3	0.0	0.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	12.9	12.8		24.3	14.0	16.2	0.0	17.4	17.4	19.3	8.9	8.0
Incremental Delay (d_2), s/veh	0.0	0.1	0.0	3.2	0.1	6.6	0.0	0.0	0.0	0.5	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	12.9	12.8		27.6	14.2	22.9	0.0	17.4	17.4	19.8	8.9	8.0
Level of Service (LOS)	B	B		C	B	C		B	B	B	A	A
Approach Delay, s/veh / LOS	12.9	B		21.5	C		17.4	B		18.7	B	
Intersection Delay, s/veh / LOS	18.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.26	B	2.26	B	2.70	C	2.40	B
Bicycle LOS Score / LOS	0.59	A	0.72	A	0.49	A	1.19	A

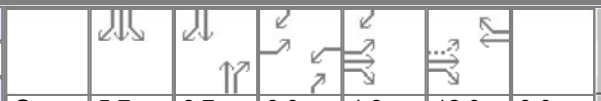
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 20, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	NBPM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2038	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2038 NBPM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				

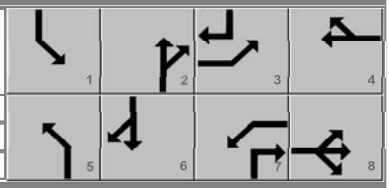


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	47	54	0	1	72	227	0	1	0	270	2	40

Signal Information			
Cycle, s	45.2	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	5.7	6.7	0.0	1.3	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



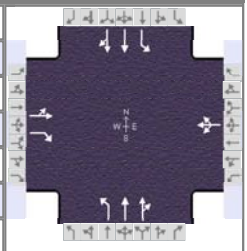
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	5.3	18.8	4.0	17.5	0.0	12.7	9.7	22.4
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.3	3.1	3.3
Queue Clearance Time (g_s), s	2.8	2.3	2.0	7.5		2.0	5.3	2.7
Green Extension Time (g_e), s	0.0	0.6	0.0	0.4	0.0	0.0	0.6	0.0
Phase Call Probability	0.45	1.00	0.01	1.00		0.42	0.97	0.98
Max Out Probability	0.00	0.01	0.00	0.38		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	47	54	0	1	72	227	0	1	0	270	2	40
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	0.8	0.3	0.0	0.0	0.7	5.5	0.0	0.0	0.0	3.3	0.0	0.7
Cycle Queue Clearance Time (g_c), s	0.8	0.3	0.0	0.0	0.7	5.5	0.0	0.0	0.0	3.3	0.0	0.7
Green Ratio (*g/C*)	0.30	0.29		0.00	0.27	0.27		0.15	0.15	0.13	0.36	0.39
Capacity (*c*), veh/h	551	1677		8	960	427	4	281	240	442	688	631
Volume-to-Capacity Ratio (*X*)	0.085	0.032	0.000	0.129	0.075	0.531	0.000	0.004	0.000	0.612	0.003	0.063
Back of Queue (*Q*), ft/ln (95 th percentile)	13	5	0	0	11	98	0	0	0	53	0	8
Back of Queue (*Q*), veh/ln (95 th percentile)	0.5	0.2	0.0	0.0	0.4	3.9	0.0	0.0	0.0	2.1	0.0	0.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	11.5	11.4		22.5	12.4	14.2	0.0	16.4	0.0	18.7	9.2	8.6
Incremental Delay (d_2), s/veh	0.0	0.0	0.0	2.7	0.2	4.7	0.0	0.0	0.0	0.5	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	11.6	11.4		25.3	12.6	18.9	0.0	16.4	0.0	19.2	9.2	8.6
Level of Service (LOS)	B	B		C	B	B		B		B	A	A
Approach Delay, s/veh / LOS	11.5	B		17.4	B		16.4	B		17.8	B	
Intersection Delay, s/veh / LOS	16.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.25	B	2.26	B	2.69	C	2.40	B
Bicycle LOS Score / LOS	0.54	A	0.74	A	0.49	A	1.00	A

HCS Signalized Intersection Results Summary

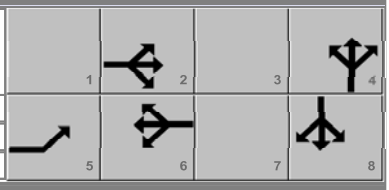
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 20, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	NBAM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2038	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2038 NBAM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	105	33	215	72	80	26	185	105	24	13	137	179

Signal Information			
Cycle, s	49.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	22.0	15.1	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	2.0	2.0	0.0	0.0	0.0	0.0	



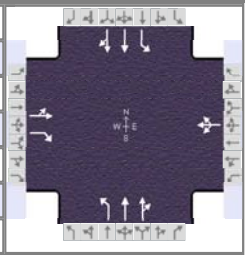
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		21.1		21.1
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.4		3.4
Queue Clearance Time (*g s*), s		6.2		4.9		14.2		6.3
Green Extension Time (*g e*), s	0.0	1.0		1.0		0.9		1.3
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.34		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		138	215		178		185	65	64	13	137	179
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1429	1610		1652		1080	1900	1780	1281	1900	1610
Queue Service Time (*g s*), s		2.2	4.2		0.0		7.9	1.2	1.3	0.4	2.6	4.3
Cycle Queue Clearance Time (*g c*), s		2.2	4.2		2.9		12.2	1.2	1.3	1.7	2.6	4.3
Green Ratio (*g/C*)		0.45	0.45		0.45		0.31	0.31	0.31	0.31	0.31	0.31
Capacity (*c*), veh/h		769	721		843		385	585	548	507	585	496
Volume-to-Capacity Ratio (*X*)		0.179	0.298		0.211		0.481	0.111	0.117	0.026	0.234	0.361
Back of Queue (*Q*), ft/ln (95 th percentile)		35	59		45		78	20	19	4	43	58
Back of Queue (*Q*), veh/ln (95 th percentile)		1.4	2.4		1.8		3.1	0.8	0.8	0.2	1.7	2.3
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		8.2	8.6		8.3		18.0	12.2	12.2	12.8	12.7	13.2
Incremental Delay (*d 2*), s/veh		0.5	1.1		0.6		0.3	0.0	0.0	0.0	0.1	0.2
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		8.7	9.7		8.9		18.4	12.2	12.2	12.8	12.8	13.4
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	9.3	A		8.9	A		15.8	B		13.1	B	
Intersection Delay, s/veh / LOS	12.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.24	B	2.24	B	1.67	B	1.90	B
Bicycle LOS Score / LOS	1.07	A	0.78	A	0.75	A	0.76	A

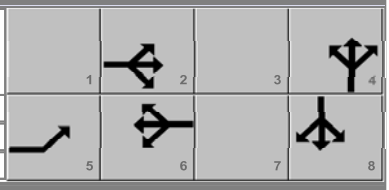
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Dec 20, 2024	Area Type	Other
Jurisdiction	CoA	Time Period	NBPM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2038	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2038 NBPM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	76	22	157	39	17	14	97	129	65	15	116	73

Signal Information												
Cycle, s	42.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	22.0	8.0	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0		
				Red	2.0	2.0	0.0	0.0	0.0	0.0		



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		14.0		14.0
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.2		3.2
Queue Clearance Time (*g s*), s		4.4		2.8		7.1		4.5
Green Extension Time (*g e*), s	0.0	0.6		0.6		0.9		0.9
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		98	157		70		97	99	95	15	97	92
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1500	1449		1567		1213	1900	1691	1208	1900	1663
Queue Service Time (*g s*), s		1.1	2.4		0.0		3.1	1.9	2.0	0.5	1.8	2.0
Cycle Queue Clearance Time (*g c*), s		1.1	2.4		0.8		5.1	1.9	2.0	2.5	1.8	2.0
Green Ratio (*g/C*)		0.52	0.52		0.52		0.19	0.19	0.19	0.19	0.19	0.19
Capacity (*c*), veh/h		939	760		955		345	361	321	343	361	316
Volume-to-Capacity Ratio (*X*)		0.104	0.207		0.073		0.282	0.274	0.295	0.044	0.268	0.292
Back of Queue (*Q*), ft/ln (95 th percentile)		14	25		10		33	30	30	5	30	29
Back of Queue (*Q*), veh/ln (95 th percentile)		0.6	1.0		0.4		1.3	1.2	1.2	0.2	1.2	1.1
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		5.0	5.3		4.9		16.8	14.5	14.6	15.6	14.5	14.6
Incremental Delay (*d 2*), s/veh		0.2	0.6		0.1		0.2	0.2	0.2	0.0	0.1	0.2
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		5.2	5.9		5.1		16.9	14.7	14.8	15.7	14.7	14.8
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	5.7	A		5.1	A		15.5	B		14.8	B	
Intersection Delay, s/veh / LOS	11.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.22	B	2.22	B	1.68	B	1.90	B
Bicycle LOS Score / LOS	0.91	A	0.60	A	0.73	A	0.66	A

APPENDIX G:
2038 BUILD INTERSECTION CAPACITY ANALYSIS

HCS Two-Way Stop-Control Report

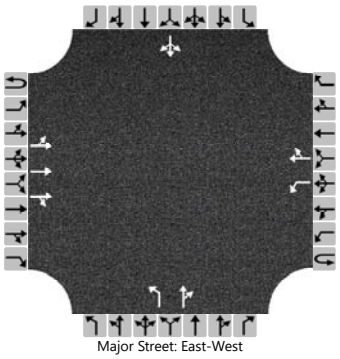
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	1/8/2025
Analysis Year	2038
Time Analyzed	BAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	1	0		0	1	0
Configuration		LT	T	TR		L		TR		L		TR			LTR	
Volume (veh/h)		0	197	0	0	3	95	24		0	0	3		73	0	0
Percent Heavy Vehicles (%)		0			1	1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				5.3				6.4	6.5	7.1		6.4	6.5	6.2
Critical Headway (sec)		4.10				5.32				6.40	6.50	7.10		6.40	6.50	6.20
Base Follow-Up Headway (sec)		2.2				3.1				3.8	4.0	3.9		3.8	4.0	3.3
Follow-Up Headway (sec)		2.20				3.11				3.80	4.00	3.90		3.80	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				4				0		4			88	
Capacity, c (veh/h)		1452				902				587		778			692	
v/c Ratio		0.00				0.00				0.00		0.00			0.13	
95% Queue Length, Q_{95} (veh)		0.0				0.0				0.0		0.0			0.4	
95% Queue Length, Q_{95} (ft)						0.0						0.0			10.0	
Control Delay (s/veh)		7.5	0.0			9.0				11.1		9.6			11.0	
Level of Service (LOS)		A	A			A				B		A			B	
Approach Delay (s/veh)	0.0				0.2				9.6				11.0			
Approach LOS	A				A				A				B			

HCS Two-Way Stop-Control Report

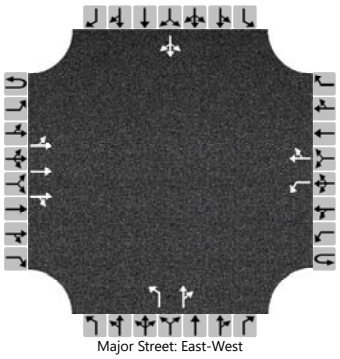
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	1/8/2025
Analysis Year	2038
Time Analyzed	BPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Community Stadium
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Community Stadium
Peak Hour Factor	0.77
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	1	0		0	1	0
Configuration		LT	T	TR		L		TR		L		TR			LTR	
Volume (veh/h)		0	114	1	0	0	193	83		0	0	1		49	0	0
Percent Heavy Vehicles (%)		0			1	1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				5.3				6.4	6.5	7.1		6.4	6.5	6.2
Critical Headway (sec)		4.10				5.32				6.40	6.50	7.10		6.40	6.50	6.20
Base Follow-Up Headway (sec)		2.2				3.1				3.8	4.0	3.9		3.8	4.0	3.3
Follow-Up Headway (sec)		2.20				3.11				3.80	4.00	3.90		3.80	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				0				0		1			64	
Capacity, c (veh/h)		1211				989				561		829			592	
v/c Ratio		0.00				0.00				0.00		0.00			0.11	
95% Queue Length, Q_{95} (veh)		0.0				0.0				0.0		0.0			0.4	
95% Queue Length, Q_{95} (ft)												0.0			10.0	
Control Delay (s/veh)		8.0	0.0			8.6				11.4		9.3			11.8	
Level of Service (LOS)		A	A			A				B		A			B	
Approach Delay (s/veh)	0.0				0.0				9.3				11.8			
Approach LOS	A				A				A				B			

HCS Two-Way Stop-Control Report

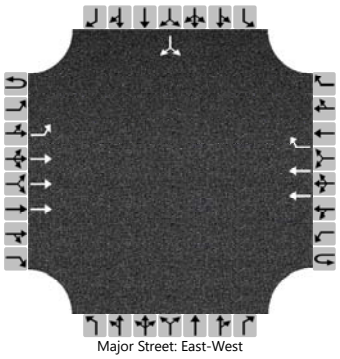
General Information

Analyst	AG
Agency/Co.	CE 582
Date Performed	1/8/2025
Analysis Year	2038
Time Analyzed	BAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.71
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	270				121	13						13		1
Percent Heavy Vehicles (%)	1	1												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.12												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.21												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													20	
Capacity, c (veh/h)		1390													678	
v/c Ratio		0.00													0.03	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.6													10.5	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		0.1												10.5		
Approach LOS		A												B		

HCS Two-Way Stop-Control Report

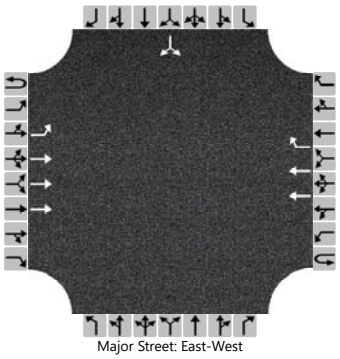
General Information

Analyst	AG
Agency/Co.	CE 582
Date Performed	1/8/2025
Analysis Year	2038
Time Analyzed	BPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & School Access
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	School Access Driveway
Peak Hour Factor	0.79
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	3	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	2	178				242	10						13		0
Percent Heavy Vehicles (%)	0	0												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							No									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												6.4		6.9
Critical Headway (sec)		4.10												5.70		6.90
Base Follow-Up Headway (sec)		2.2												3.8		3.3
Follow-Up Headway (sec)		2.20												3.80		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													16	
Capacity, c (veh/h)		1252													606	
v/c Ratio		0.00													0.03	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
95% Queue Length, Q_{95} (ft)		0.0													2.5	
Control Delay (s/veh)		7.9													11.1	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		0.1												11.1		
Approach LOS		A												B		

HCS Two-Way Stop-Control Report

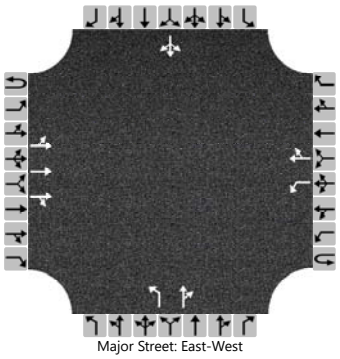
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	1/8/2025
Analysis Year	2038
Time Analyzed	BAM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.80
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	1	0		0	1	0
Configuration		LT	T	TR		L		TR		L		TR			LTR	
Volume (veh/h)		0	178	0	0	0	66	13		0	0	0		40	0	0
Percent Heavy Vehicles (%)		0			1	1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				5.3				6.4	6.5	7.1		6.4	6.5	6.2
Critical Headway (sec)		4.10				5.32				6.40	6.50	7.10		6.40	6.50	6.20
Base Follow-Up Headway (sec)		2.2				3.1				3.8	4.0	3.9		3.8	4.0	3.3
Follow-Up Headway (sec)		2.20				3.11				3.80	4.00	3.90		3.80	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				0				0		0			50	
Capacity, c (veh/h)		1507				916				612		0			731	
v/c Ratio		0.00				0.00				0.00					0.07	
95% Queue Length, Q_{95} (veh)		0.0				0.0				0.0					0.2	
95% Queue Length, Q_{95} (ft)															5.0	
Control Delay (s/veh)		7.4	0.0			8.9				10.9					10.3	
Level of Service (LOS)		A	A			A				B					B	
Approach Delay (s/veh)	0.0				0.0								10.3			
Approach LOS	A				A								B			

HCS Two-Way Stop-Control Report

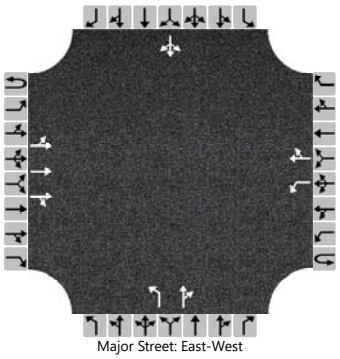
General Information

Analyst	AG
Agency/Co.	BH
Date Performed	1/8/2025
Analysis Year	2038
Time Analyzed	BPM
Intersection Orientation	East-West
Project Description	APS TIA

Site Information

Intersection	Arroyo Vista & Sports Complex
Jurisdiction	CoA
East/West Street	Arroyo Vista Blvd NW
North/South Street	Sports Complex
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	1	1	0		1	1	0		0	1	0
Configuration		LT	T	TR		L		TR		L		TR			LTR	
Volume (veh/h)		0	91	1	0	1	139	45		0	0	1		26	0	0
Percent Heavy Vehicles (%)		3			1	1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

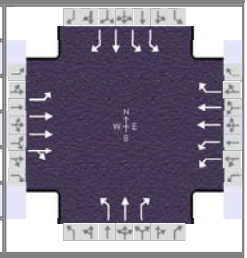
Base Critical Headway (sec)		4.1				5.3				6.4	6.5	7.1		6.4	6.5	6.2
Critical Headway (sec)		4.16				5.32				6.40	6.50	7.10		6.40	6.50	6.20
Base Follow-Up Headway (sec)		2.2				3.1				3.8	4.0	3.9		3.8	4.0	3.3
Follow-Up Headway (sec)		2.23				3.11				3.80	4.00	3.90		3.80	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				1				0		1			31	
Capacity, c (veh/h)		1337				1030				645		853			674	
v/c Ratio		0.00				0.00				0.00		0.00			0.05	
95% Queue Length, Q_{95} (veh)		0.0				0.0				0.0		0.0			0.1	
95% Queue Length, Q_{95} (ft)						0.0						0.0			2.5	
Control Delay (s/veh)		7.7	0.0			8.5				10.6		9.2			10.6	
Level of Service (LOS)		A	A			A				B		A			B	
Approach Delay (s/veh)	0.0				0.0				9.2				10.6			
Approach LOS	A				A				A				B			

HCS Signalized Intersection Results Summary

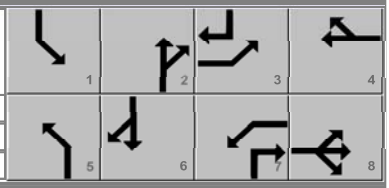
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Feb 13, 2025	Area Type	Other
Jurisdiction	CoA	Time Period	BAM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2038	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2038 BAM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	109	184	0	1	67	236	0	2	2	382	3	55

Signal Information			
Cycle, s	52.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.2	9.5	0.0	3.5	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



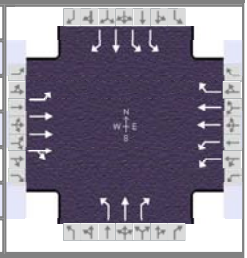
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	7.5	21.0	4.0	17.5	0.0	15.5	12.2	27.7
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.3	3.1	3.3
Queue Clearance Time (g_s), s	4.3	3.2	2.0	9.0		2.1	7.4	3.0
Green Extension Time (g_e), s	0.1	0.8	0.0	0.4	0.0	0.0	0.8	0.1
Phase Call Probability	0.80	1.00	0.01	1.00		0.60	1.00	1.00
Max Out Probability	0.00	0.03	0.00	1.00		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	109	184	0	1	67	236	0	2	2	382	3	55
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	2.3	1.2	0.0	0.0	0.8	7.0	0.0	0.0	0.1	5.4	0.0	1.0
Cycle Queue Clearance Time (g_c), s	2.3	1.2	0.0	0.0	0.8	7.0	0.0	0.0	0.1	5.4	0.0	1.0
Green Ratio (*g/C*)	0.32	0.29		0.00	0.23	0.23		0.18	0.18	0.16	0.41	0.48
Capacity (*c*), veh/h	546	1673		7	822	366	3	342	291	549	783	771
Volume-to-Capacity Ratio (*X*)	0.200	0.110	0.000	0.150	0.081	0.645	0.000	0.006	0.007	0.695	0.004	0.071
Back of Queue (*Q*), ft/ln (95 th percentile)	36	22	0	0	14	142	0	1	1	91	1	12
Back of Queue (*Q*), veh/ln (95 th percentile)	1.4	0.9	0.0	0.0	0.5	5.7	0.0	0.0	0.0	3.7	0.0	0.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	12.9	13.6		26.3	16.1	18.5	0.0	17.8	17.7	21.1	9.1	7.4
Incremental Delay (d_2), s/veh	0.1	0.1	0.0	3.8	0.2	8.8	0.0	0.0	0.0	0.6	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	13.0	13.7		30.2	16.3	27.3	0.0	17.8	17.7	21.7	9.1	7.4
Level of Service (LOS)	B	B		C	B	C		B	B	C	A	A
Approach Delay, s/veh / LOS	13.5	B		24.9	C		17.8	B		19.8	B	
Intersection Delay, s/veh / LOS	19.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.26	B	2.27	B	2.70	C	2.40	B
Bicycle LOS Score / LOS	0.65	A	0.74	A	0.49	A	1.21	A

HCS Signalized Intersection Results Summary

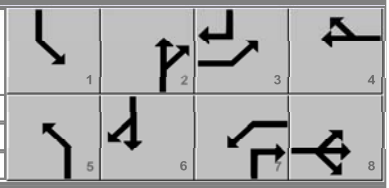
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Feb 13, 2025	Area Type	Other
Jurisdiction	CoA	Time Period	BPM	PHF	1.00
Urban Street	Arroyo Vista Blvd NW	Analysis Year	2038	Analysis Period	1> 7:00
Intersection	Arroyo Vista & Tierra Pi…	File Name	2038 BPM Arroyo Vista & Tierra Pintada.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	77	98	0	1	147	227	0	1	0	270	2	92

Signal Information			
Cycle, s	52.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.3	11.8	0.0	2.5	12.0	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	1.0	2.0	1.0	0.0	1.5	0.0



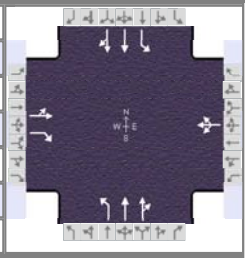
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	5	2	1	6
Case Number	1.1	4.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	6.5	20.0	4.0	17.5	0.0	17.8	10.3	28.1
Change Period, ($Y+R_c$), s	4.0	5.5	4.0	5.5	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	3.1	3.2	3.1	3.2	0.0	3.4	3.1	3.4
Queue Clearance Time (g_s), s	3.6	2.7	2.0	8.6		2.0	5.8	3.7
Green Extension Time (g_e), s	0.1	0.8	0.0	0.4	0.0	0.0	0.6	0.1
Phase Call Probability	0.67	1.00	0.01	1.00		0.75	0.98	0.99
Max Out Probability	0.00	0.02	0.00	0.86		0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	77	98	0	1	147	227	0	1	0	270	2	92
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1757	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	1.6	0.7	0.0	0.0	1.7	6.6	0.0	0.0	0.0	3.8	0.0	1.7
Cycle Queue Clearance Time (g_c), s	1.6	0.7	0.0	0.0	1.7	6.6	0.0	0.0	0.0	3.8	0.0	1.7
Green Ratio (*g/C*)	0.29	0.28		0.00	0.23	0.23		0.23	0.23	0.12	0.42	0.47
Capacity (*c*), veh/h	475	1583		7	833	371	3	431	367	423	805	760
Volume-to-Capacity Ratio (*X*)	0.162	0.062	0.000	0.148	0.176	0.612	0.000	0.002	0.000	0.639	0.002	0.121
Back of Queue (*Q*), ft/ln (95 th percentile)	26	12	0	0	30	130	0	0	0	65	0	20
Back of Queue (*Q*), veh/ln (95 th percentile)	1.0	0.5	0.0	0.0	1.2	5.2	0.0	0.0	0.0	2.6	0.0	0.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	13.9	13.8		26.0	16.1	18.0	0.0	15.6	0.0	21.8	8.7	7.7
Incremental Delay (d_2), s/veh	0.1	0.1	0.0	3.7	0.5	7.6	0.0	0.0	0.0	0.6	0.0	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	13.9	13.9		29.7	16.6	25.6	0.0	15.6	0.0	22.4	8.7	7.7
Level of Service (LOS)	B	B		C	B	C		B		C	A	A
Approach Delay, s/veh / LOS	13.9	B		22.0	C		15.6	B		18.6	B	
Intersection Delay, s/veh / LOS	19.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.26	B	2.27	B	2.69	C	2.40	B
Bicycle LOS Score / LOS	0.58	A	0.80	A	0.49	A	1.09	A

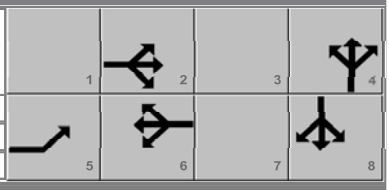
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Feb 13, 2025	Area Type	Other
Jurisdiction	CoA	Time Period	BAM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2038	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2038 BAM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	105	33	222	72	80	26	206	129	24	13	145	179

Signal Information										
Cycle, s	50.3	Reference Phase	2							
Offset, s	0	Reference Point	End							
Uncoordinated	Yes	Simult. Gap E/W	On							
Force Mode	Fixed	Simult. Gap N/S	On							
				Green	22.0	16.3	0.0	0.0	0.0	0.0
				Yellow	4.0	4.0	0.0	0.0	0.0	0.0
				Red	2.0	2.0	0.0	0.0	0.0	0.0



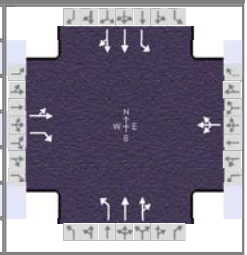
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		22.3		22.3
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.4		3.4
Queue Clearance Time (*g s*), s		6.5		5.0		15.4		6.3
Green Extension Time (*g e*), s	0.0	1.0		1.0		0.9		1.4
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.60		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		138	222		178		206	77	76	13	145	179
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1429	1610		1652		1073	1900	1798	1254	1900	1610
Queue Service Time (*g s*), s		2.3	4.5		0.1		9.1	1.4	1.5	0.4	2.8	4.3
Cycle Queue Clearance Time (*g c*), s		2.3	4.5		3.0		13.4	1.4	1.5	1.9	2.8	4.3
Green Ratio (*g/C*)		0.44	0.44		0.44		0.32	0.32	0.32	0.32	0.32	0.32
Capacity (*c*), veh/h		752	705		824		398	614	581	510	614	521
Volume-to-Capacity Ratio (*X*)		0.184	0.315		0.216		0.517	0.126	0.130	0.025	0.236	0.344
Back of Queue (*Q*), ft/ln (95 th percentile)		37	65		48		88	23	23	4	45	58
Back of Queue (*Q*), veh/ln (95 th percentile)		1.5	2.6		1.9		3.5	0.9	0.9	0.2	1.8	2.3
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		8.7	9.2		8.8		18.1	12.0	12.0	12.7	12.5	12.9
Incremental Delay (*d 2*), s/veh		0.5	1.2		0.6		0.4	0.0	0.0	0.0	0.1	0.1
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		9.2	10.4		9.4		18.5	12.0	12.0	12.7	12.5	13.1
Level of Service (LOS)		A	B		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	9.9	A		9.4	A		15.7	B		12.8	B	
Intersection Delay, s/veh / LOS	12.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.24	B	2.24	B	1.67	B	1.90	B
Bicycle LOS Score / LOS	1.08	A	0.78	A	0.78	A	0.77	A

HCS Signalized Intersection Results Summary

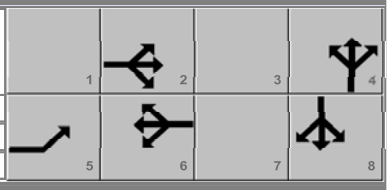
General Information				Intersection Information	
Agency	BH			Duration, h	1.000
Analyst	AG	Analysis Date	Feb 13, 2025	Area Type	Other
Jurisdiction	CoA	Time Period	BPM	PHF	1.00
Urban Street	Tierra Pintada Blvd NW	Analysis Year	2038	Analysis Period	1> 7:00
Intersection	Tierra Pintada & Stormcl…	File Name	2038 BPM Tierra Pintada & Stormcloud.xus		
Project Description	APS TIA				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	76	22	182	39	17	14	111	145	65	15	143	73

Signal Information			
Cycle, s	43.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	22.0	9.0	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	2.0	2.0	0.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		8
Case Number	0.0	13.2		8.3		6.0		6.0
Phase Duration, s	0.0	28.0		28.0		15.0		15.0
Change Period, (*Y+R c*), s	4.5	6.0		6.0		6.0		6.0
Max Allow Headway (*MAH*), s	0.0	3.2		3.2		3.2		3.2
Queue Clearance Time (*g s*), s		4.7		2.8		8.0		4.7
Green Extension Time (*g e*), s	0.0	0.6		0.7		1.0		1.0
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		0.00		0.01		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		98	182		70		111	107	103	15	111	105
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1500	1610		1567		1184	1900	1706	1190	1900	1689
Queue Service Time (*g s*), s		1.2	2.7		0.0		3.8	2.0	2.2	0.5	2.1	2.3
Cycle Queue Clearance Time (*g c*), s		1.2	2.7		0.8		6.0	2.0	2.2	2.7	2.1	2.3
Green Ratio (*g/C*)		0.51	0.51		0.51		0.21	0.21	0.21	0.21	0.21	0.21
Capacity (*c*), veh/h		916	823		931		353	399	358	356	399	355
Volume-to-Capacity Ratio (*X*)		0.107	0.221		0.075		0.314	0.269	0.287	0.042	0.277	0.297
Back of Queue (*Q*), ft/ln (95 th percentile)		15	32		11		39	33	32	5	34	33
Back of Queue (*Q*), veh/ln (95 th percentile)		0.6	1.3		0.4		1.6	1.3	1.3	0.2	1.4	1.3
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh		5.4	5.8		5.3		16.9	14.2	14.3	15.4	14.3	14.3
Incremental Delay (*d 2*), s/veh		0.2	0.6		0.2		0.2	0.1	0.2	0.0	0.1	0.2
Initial Queue Delay (*d 3*), s/veh		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		5.7	6.4		5.5		17.1	14.4	14.5	15.4	14.4	14.5
Level of Service (LOS)		A	A		A		B	B	B	B	B	B
Approach Delay, s/veh / LOS	6.2	A		5.5	A		15.3	B		14.5	B	
Intersection Delay, s/veh / LOS	11.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.22	B	2.22	B	1.68	B	1.90	B
Bicycle LOS Score / LOS	0.95	A	0.60	A	0.75	A	0.68	A

APPENDIX H:
CRASH DATA

Arroyo Vista & Tierra Pintada Crash Data 2021 - 2023

Crash Report Number	Crash Date and Time	Crash Year	Month	Law Enforcement Agency	Tribal Jurisdiction	County	City	Primary Street	Crash Direction	First Harmful Event	First Harmful Event Occurred	First Harmful Event - Analysis	First Harmful Event - Location	First Harmful Event - Manner of Crash	First Harmful Event - Manner of Impact	Lighting	Road System: Urban, Rural or Rural Interstate	Maximum Vehicle Damage	Contributing Factors	KABCO Crash Severity
710794242	9/27/2021 8:36	2021	September	Albuquerque Police Department	No	Bernalillo	Albuquerque	Tierra Pintada	S	Collision with Motor Vehicle	On Roadway	MV in Transport	On Roadway	Intersecting Path (T-bone)	Front-to-Side	Daylight	Urban	Disabling	["Other, No Driver Error","Failed to Yield Right of Way"]	(B) Suspected Minor Injury

Arroyo Vista & School Access Crash Data 2021 - 2023

Crash Report Number	Crash Date and Time	Crash Year	Month	Law Enforcement Agency	Tribal Jurisdiction	County	City	Primary Street	Crash Direction	First Harmful Event	First Harmful Event Occurred	First Harmful Event - Analysis	First Harmful Event - Location	First Harmful Event - Manner of Crash	First Harmful Event - Manner of Impact	Lighting	Road System: Urban, Rural or Rural Interstate	Maximum Vehicle Damage	Contributing Factors	KABCO Crash Severity
710774471	2/11/2021 16:00	2021	February	Albuquerque Police Department	No	Bernalillo	Albuquerque	1809 Arroyo Vista Blvd Nw	S	Collision with Other Non-Fixed Object	Off Roadway	Other Non-fixed Object	Off Roadway - Location Unknown			Daylight	Urban	Disabling	Cell Phone	(B) Suspected Minor Injury